

INFLUENCE OF PERCEIVED RISKS ON COVID-19 PREVENTIVE MESSAGE ADOPTION ON SOCIAL MEDIA

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Abstract

Studies have established links between social media and the prevalence of COVID-19 in Nigeria, but there is little evidence of factors influencing social media users to adopt preventive measures during the pandemic in Nigeria. Thus, this study analyzes the factors that influence the adoption of COVID-19 preventive messages using the Health Belief Model (HBM). In the context of this study, perceived risks and cues to action are two constructs of the model used to predict preventive health behaviours of social media users. It adopted a survey method, with one hundred and twenty-two respondents recruited through snowball sampling. The participants were drawn across social media (WhatsApp) platforms that allow health-related posts and comments among members. Data, which was collected through a questionnaire, was analyzed using descriptive and inferential statistics such as percentage and multiple regression, which was tested at a 0.05 level of significance. The results showed that *perceived risks* including *emotionality* ($\beta=.111$, $R^2=.012$, $p=.001$), *mental intangibility* ($\beta=.081$, $R^2=.117$, $p=.000$), *privacy risk* ($\beta=.143$, $R^2=.223$, $p=.002$) and *social risk* ($\beta=.183$, $R^2=.413$, $p=.000$) had significant and direct influence on the adoption of COVID-19 preventive messages on social media. The study, therefore, concluded that motivations for adopting COVID-19 preventive information on social media depend on respondents' perceptions of the nature and degree of risks involved. The study recommended that further studies consider the

influence of other factors, such as social trust, source credibility and punitive measures on adopting COVID-19 preventive messages.

Keywords: Health Belief Model (HBM), COVID-19, Health Message Adoption, Social Media

Introduction

The corona virus disease of 2019 (COVID-19) pandemic, which was declared a Public Health Emergency of International Concern (PHIEC), has continued to ravage the world (WHO, 2020), killing 5,615,210 people between September 2020 and January 24, 2022. Out of the 352,323,910 cases, Africa has 10,759,690 reported cases. Despite being the most populous nation in the world (with 211.4 million people), according to the latest United Nations estimated figures (Statista, 2021), Nigeria has one of the lowest cases (252, 187 cases) compared to other African nations like South Africa (3,581,359 cases), Morocco (1,098,413 cases), Tunisia (853,905 cases), Ethiopia (462,107 cases), and the likes (Worldometer, 2022). This lower number of cases recorded in Nigeria is attributed to the level of preparedness, improved health facilities as well as the revitalised National Centre for Disease Control (NCDC) (Amzat, Aminu, Kolo, Akinyele, Ogundairo & Danjibo, 2020).

Considering the pervasive nature of COVID-19 information on social media among thirty-three million users, representing 15.8 per cent of 208.8 million citizens (Nairametrics, 2021), they are a critical mass of a country whose perceptions toward the information received will have a significant influence on their health behaviour in relation to the pandemic. Thus, some studies (e.g., Ogbonna, 2020; Yakubu, Temidayo, Yusuf & Adamu, 2020; Dango & Musa, 2020) have established the significant influence of social media on the prevalence of COVID-19 (mis-) information and fake cures or treatment. Others focused on the awareness of and attitude towards COVID-19 information and preventive measures through social media (e.g., Nwaolikpe, 2020; Mbazie & Njanubok, 2020) as well as the impact of the pandemic on education (e.g., Audu & Joel, 2020), tourism (e.g., Zheng, Goh & Wen, 2020) and economy (e.g., Ola-Koyi & Anasi, 2020). However, there is little evidence on how perceptions of the COVID-19 risks among individuals influence their adoption of social media information in relation to preventive health behaviours.

Similarly, emotions (such as fear) have been suggested to influence the adoption of health information. According to Huo, Zhang and Ma (2018), studies should determine whether the perceived threat influences the message response directly or indirectly through fear, as a direct

effect of evoked fear has been found to have an effect on the threat response in information security (Boss, Galletta, Lowry, Moody & Polak, 2015). Given this eminent gap, this study sought to understand how different perceptive risk factors influence audiences' health behaviours towards adopting COVID-19 preventive information on social media. This becomes imperative considering the dangers posed by the spread of the disease as well as misinformation on social media, thus affecting the effectiveness of media campaigns and advocacy in tackling the pandemic in Nigeria. Thus, the objective of the study is to:

1. Understand the influence of perceived risks on adopting COVID-19 preventive messages on social media.

Social Media and COVID-19 Preventive Information

Social media, referred to as web 2.0 technologies, provide the platforms through which an individual can create, edit and share text, audio and video content within a virtual community. Social media have specific features that distinguish one from the other but are primarily data-driven. As of January 2022, out of thirteen commonly used social media sites, WhatsApp, Facebook, and YouTube were ranked as the three most popular sites among the respondents between the ages of 16 and 64. In all, Nigeria has approximately 32.9 million active social media users (Statista, 2022).

The use of social media in promoting preventive health behaviours has received considerable academic attention. There is mounting evidence (World Health Organisation [WHO], 2020; Tasnim, Hossain & Mazumder, 2020; Yakubu et al., 2020; Wu, Fred, Kathleen & Huan, 2020; Dango & Musa, 2020) to suggest that there is a propensity of COVID-19 (mis-) information on social media. For example, WHO (2020), while announcing the pandemic outbreak in mid-February, noted that COVID-19 was accompanied by an 'infodemic' of misinformation. COVID-19 has led to an upsurge in the level of misinformation on its aetiology, preventive measures and cures, which led to increased reported cases and casualties (Tasnim, Hossain & Mazumder, 2020). Poor attitude to the observance of the COVID-19 responses was a result of misinformation and disinformation on social media (Brennen, Felix, Philip & Rasmus, 2020) while most information about the pandemic is 'half-truth and outright misinformation about the

disease, its spread, prevention and cures on social media platforms especially Facebook, Twitter and WhatsApp (Yakubu et al., 2020).

The nature of misinformation about COVID-19 on social media includes unintentionally-spread misinformation, intentionally-spread misinformation, urban legend, fake news, unverified information and rumours (Wu et al., 2020). In view of the prevalence of information about COVID-19 on social media, Dango and Musa (2020), based on their findings from the analysis of WhatsApp and Facebook forwarded messages, concluded that 'the misinformation about COVID-19 pandemic spreading on social media overcomes the genuine ones' (p.118). Having established a causal relationship between social media and the spread of COVID-19, an attempt is made to understand risk perceptions of the virus in relation to the adoption of preventive messages on social media.

Perceived Risks and Adoption of COVID-19 Preventive Information

Extant literature has conceived the cost of whether to adopt particular health behaviour or not as a function of barrier perception among individuals (Hochbaum, 1956; Becker, Drachman & Kirscht, 1974). In line with this, Li, Wang, Lin and Hajli (2016, p.4) defined risk perception as 'the subjective expectation of a possible loss, and it can negatively affect people's intentions to engage in particular behaviours'. Concerning health information on social media, the antecedents of perceived risks comprise of mental intangibility, privacy risk, time, social risk, and psychological risk (Featherman & Wells, 2010; Li et al., 2016). In the context of this paper, only four dimensions, which include mental intangibility, privacy risk, social risk, and psychological risk (emotionality), are considered relevant and reviewed next in the paper.

Mental Intangibility

Mental intangibility is the perceived intricacies or difficulties an individual must overcome to understand COVID-19 information on social media. The evaluative process of message cues will lead to a clear, mentally tangible representation of the object (Li et al., 2016). The imports of mental intangibility underscore the fact that people often express concerns about the clarity of health information on social media, which may affect the likelihood of adopting such

information. Thus, the implication of this is that health information may be misinterpreted as social media users may rely on their logic to discern the contents therein, which may be at variance with the intended or original meaning of the author.

Based on the analysis of tweets on the Zika outbreak, Gui, Wang, Kou, Reynolds, Chen, Mei, and Zheng (2017) found that discrepancies exist between Twitter users' discussions and health institutions' tweets on the pandemic. This was a result of the misunderstanding of tweets on the Zika outbreak. Social media users often find it challenging to determine what health information they should adopt and with whom. Due to a lack of understanding of its contents, a majority of the respondents sampled in the survey were confused rather than approving a breast cancer mammography advisory on Twitter (Nastasi, Bryant, Canner, Dredze, Camp & Nagarajan, 2017). Also, in an observational study, participants had difficulty evaluating and understanding online health information (Feufel & Stahl, 2012). Thus, when people cannot make tangible meaning from a post or broadcast, there is a chance that such a post will be avoided. In specific relation to this study, the mental intangibility of social media posts and broadcasts on COVID-19 would lead to its avoidance because it is risky to people's health (Li et al., 2016).

Privacy Risk

Privacy risk entails having no control over one's personal information. This may occur due to using social media platforms or applications through personal health information shared in great detail with other social media users, including health professionals. Thus, in an attempt to seek professional advice from a doctor, individuals may have their health status disclosed, which may be potentially used against them by unauthorised individuals, including social media companies. Hence, it is possible that the fear of having one's health information compromised may be a factor, while some people may not seek or adopt health information, including COVID-19 preventive information, online. In other words, hackers may steal an individual's health records, which they share through social media applications (Li et al., 2016). Because people are wary of potential damage, particularly privacy risks, from sharing

their health details online, they are most likely to refrain from commenting or sharing their experiences regarding chronic disease.

Social Risk

The possibility of an individual losing their sense of belonging due to their decision to share or adopt any health information among other members in a social group is what Li et al. (2016) referred to as a "social risk". That is, the higher the perceived social risk, the lower the perceived respect or status others have for the individual in a social group. A further concern, Gibson (2014) noted, is that bloggers who appear independent are often paid or sponsored by pharmaceutical companies to write about health-related issues on social media. Thus, this is capable of leading to trust issues or misinformation between the source of a health message and the recipients, as people will feel manipulated. Adolescents are at risk of being exposed to online contents which promote unhealthy lifestyles, such as exposure to alcohol and drug advertisements and inaccurate or misleading postings and marketing of illicit drugs by their friends on social media (Salimian, Chunara & Weitzman, 2014; Moreno & Whitehill, 2014). The degree of loss an individual may incur for undertaking an action and the perception that such an action would have unfavourable consequences are determinants of motivated behaviour, including health information adoption on social media (Li et al., 2016).

Emotionality

Emotions which are often induced with fear appeal, is a common factor that influences the persuasiveness of a message. Studies (e.g., Jin, Zhou & Yu, 2019; Berger & Milkman, 2012) have linked public positive attitudes and behaviours towards an idea to the credibility of a source and fear appeal, with the suggestion that fear appeal is commonly used in health-related messages. For decades, the fear appeal has been used in persuasive messages, most significantly in health-related information. The assumption underpinning fear appeal theory implies that fear can be induced through a potential threat, which propels message recipients to take measures to cope with or escape from the threat. Thus, it is likely that social media users who often adopt health messages may use fear appeals, although the impact of fear appeals on

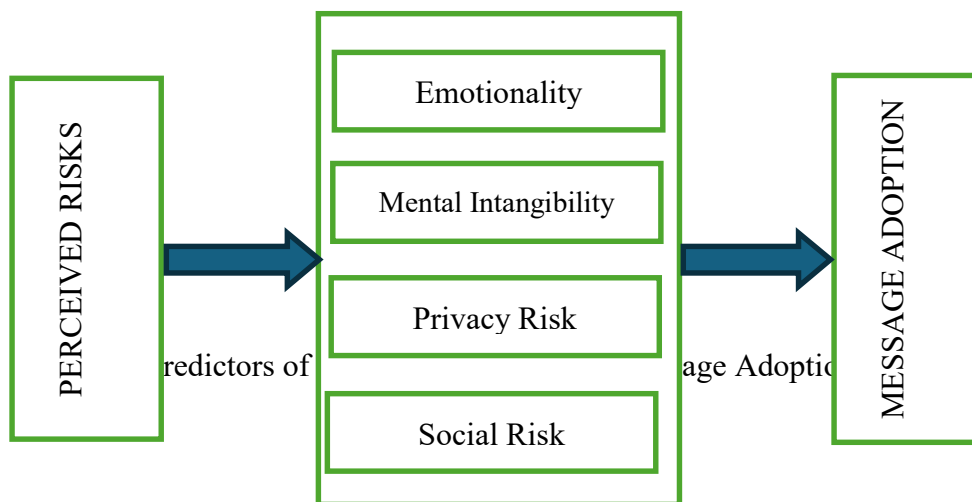
the credibility of network sites is not well understood (Durban, Connely, Jensen, Adame, Rozzell, Griffith & O'Hair, 2014).

Prior studies (e.g., Meulenaer, Pelsmacker & Dens, 2015) have suggested that health information generally uses threat messages and recommendations. Thus, it is likely that social media users who engage in adopting health messages, which are embedded with fear appeals, may prefer contents that encourage peripheral processing rather than central processing because that would require less message elaboration and could spur more action from message recipients. Perhaps this explains why Twitter users were not only selective of what to retweet, but they also considered such information valuable and credible before it is adopted (Kandadai, Yang, Jiang, Yang, Fleisher & Winston, 2016).

Huo, Zhang and Ma (2018) identified possible applications of fear in different models and theories, including the linear model of fear appeal, the curvilinear model of fear appeal, the health belief model, the parallel process model, the extended parallel process model, and protection motivation theory. The assumption that threat induces fear, which then motivates message recipients to take measures or accept recommendations, has been tested and supported through different health-related topics, including anti-smoking, anti-substance abuse, HIV/AIDS prevention, and television health news, among others. Boss et al. (2015), who compared the curvilinear model of fear and the Protection Motivation Theory (PMT), said the former suggests that people when exposed to fear, will avoid potential threats if they think the danger exceeds their efficiency, while the latter holds that individuals will take measures to protect themselves as long as they perceive a potential threat.

Therefore, in the context of this paper, "perceived risks" are defined as the concerns such as mental intangibility, privacy risk, social risk and emotionality associated with the adoption of COVID-19 messages on social media. That is, when an individual has reservations about sharing health-related posts on social media, there are chances that they would avoid using such platforms, leading to inactive participation in online health information. From the foregoing reviews of various manifestations of risks in relation to COVID-19 message adoption, it is therefore hypothesised that:

Perceived risks had a significant and direct influence on the adoption of COVID-19 preventive messages on social media.



Theoretical Framework: Health Belief Model (HBM)

To understand predictors of adoption of COVID-19 information, the Health Belief Model (HBM) is adopted in the study to analyze how perceived risks influence the adoption of COVID-19 responses among social media users. According to the model, preventive health behaviour is predicated on individuals' belief systems as well as attitudes, including perceived benefits, perceived barriers, perceived susceptibility and perceived severity (Hochbaum, 1956). In other words, individuals' perception of the associated benefits or risks of taking certain behaviours and the degree to which they believe they may contract the virus would influence their decision to observe COVID-19 responses. The model consists of different constructs such as belief system, perceived susceptibility, and perceived severity, perceived benefits of taking action, and barriers to taking action.

While all the constructs have been tested and modified across studies (e.g., Anuar, Shah, Gafor, Mahmood & Ghazi, 2020; Herrmann, Hall & Proietto, 2018) with a view to establishing their usability, the model, however, has been criticised for lacking predictive power while there was no evidence to suggest that perceived severity and perceived susceptibility could accurately determine health behaviours particularly among children and adolescents (Akinfeleye & Ibraheem, 2012). In the context of this study, only perceived risks were considered as the basis upon which individuals are influenced towards accepting or adopting health messages on social media. In an attempt to apply the perceived barriers (risks) and cues

to actions as constructs of the HBM, the study aims to understand individuals' dispositions towards adopting preventive measures against COVID-19 in Nigeria. The imports of the theory underscore the fact that perceived risks and severity of a disease as promoted through social media tend to enhance positive attitudes among people by taking measures against being affected by a disease, including pandemic (Nduka, Igwe-Omoke & Ogugua, 2014).

Methodology

It is an online survey where participants were recruited from selected online health forums across some social media platforms such as Whatsapp and Facebook. This decision is justified considering the fact that the aforesaid platforms were ranked as the most popular among social media users (Statista, 2022). Respondents were drawn from platforms where health-related content is shared and discussed among members. Only those who had an interest participated in the study voluntarily. With the use of Google Docs, a link was sent to the respondents to various group platforms. In all, only 122 forms (questionnaire) were duly filled and submitted by the respondents.

Furthermore, items of the instrument designed to measure the factors (including mental intangibility, social risk, privacy risk, emotionality as well, as perceived risk) aimed at understanding the adoption of COVID-19 among social media users were adapted thus: *mental intangibility*, *social risk*, *privacy risk*, and *perceived risks* from Li et al. (2016) while *emotionality* was adapted from Huo et al. (2018). In this study, descriptive and inferential statistics such as percentage and multiple regression, which were significant at 0.05 level of significance, were used to measure the influence of perceived risks on the adoption of COVID-19 preventive messages on social media.

Results Presentation and Analysis

To test the hypotheses of the study, multiple regressions were conducted to show the level of influences and predictions between independent variables (*emotionality*, *mental intangibility*, *privacy risk* and *social risk*) and dependent variable (*message adoption*)

Table 1: Demographic Characteristics of Respondents

Demographic Profile	Frequency	Percentage
Gender		
Male	93	76.2%
Female	29	23.8%
Total	122	100%
Age group		
Between 25	6	4.9%
26-35	50	41.0%
36-45	51	41.8%
46-55	11	9.0%
56 & above	4	3.3%
Total	122	100%
Social Media Usage		
Whatsapp	76	62.3%
Facebook	35	28.7%
Twitter	11	9.0%
Total	122	100%

Source: Researcher's field work, 2021

The demographics of the respondents showed that there were more male than female respondents in the study. A majority of the respondents (101 people) were within the age groups of 26-35 and 36-45, respectively while the least age group in the study was 55 and above, representing 3.3 %. The adoption of COVID-19 preventive messages on social media among the respondents showed that most of them used WhatsApp more than other platforms, including Facebook and Twitter.

Table 2: Influence of Emotionality as Perceived Risk on Message Adoption

Independent Variables	B	SE	B	T	P
Constant	3.386	.215	-	15.774	.000
Emotionality	.187	.054	.111	3.4630	.001

$$F_{(0.05; 1, 121)} = 3.92, R^2 = .12, \text{Adj. } R^2 = .091, p = .001$$

Dependent Variable: Message Adoption

From the Table 2, $B=3.386$ indicated the expected overall average of *message adoption* from respondents, and it is significant as $p\text{-value} = 0.001$. Also, $B = 0.187$ was the rate at which *emotionality* varied with *message adoption* based on the number of respondents, with $\beta=0.111$ (11.1%), which measured the influence of *emotionality* on *message adoption*. The β is significant as $p\text{-value} = 0.001$. The $R^2 = .12$ represented the total variation of *emotionality* on *message adoption* in the model, which can be adjusted for at 1.2% ($\text{Adj. } R^2 = .091$), suggesting that 1.2 % of respondents were likely to adopt messages on COVID-19 measures as a result of *emotionality*. The overall model was significant since $F_{(0.05, 1, 121)} = 3.92$ ($p=.001$) while 3.92 per cent of the respondents adopted COVID-19 messages based on *emotionality*. By inference, the coefficients of the model was statistically significant ($.001 < 0.05$ (level of significance)). Therefore, emotionality was a significant predictor of COVID-19 message adoption among respondents.

Table 3: Influence of Mental Intangibility as Perceived Risk on COVID-19 Message Adoption

Independent Variables	B	SE	B	T	P
Constant	3.456	.208	-	16.633	.000
Mental Intangibility	.263	.072	.081	3.623	.000

$$F_{(0.05; 1, 121)} = 2.75, R^2 = .117, \text{Adj. } R^2 = .082, p = .000$$

Dependent Variable: Message Adoption

From Table 3, $B=3.456$ indicated the expected overall average of *COVID-19 message adoption* from respondents, and it is significant as $p\text{-value} = .000$. Also, $B = 0.263$ was the rate at which

mental intangibility varied with *COVID-19message adoption* based on the number of respondents, with $\beta=0.081$ (8.1%) which measured the influence of *mental intangibility* on *COVID-19message adoption*. The β is significant as $p\text{-value} = .000$. The $R^2 = .117$ represented the total variation of *mental intangibility* on *COVID-19 message adoption* in the model, which can be adjusted for at 8.2% (Adj. $R^2 = .082$), suggesting that 11.7 % of respondents were likely to adopt COVID-19 messages as a result of *mental intangibility*. The overall model was significant since $F_{(0.05; 1, 121)} = 2.75$ ($p=.000$) while 2.75 per cent of the respondents adopted COVID-19 messages based on *mental intangibility*. By inference, the coefficients of the model was statistically significant ($.000 < 0.05$ (level of significance)). Therefore, *mental intangibility* was a significant predictor of COVID-19 message adoption among social media users.

Table 4: Influence of Privacy Risk as Perceived Risk on COVID-19 Message Adoption

Independent Variables	B	SE	B	T	P
Constant	3.343	.197	-	16.929	.000
Privacy risk	.213	.074	.143	2.878	.002

$F_{(0.05; 1, 121)} = 3.07$, $R^2 = .223$; Adjusted $R^2 = .191$, $P = .002$

Dependent Variable: Message Adoption

From the Table 4, $B=3.343$ indicated the expected overall average of *COVID-19message adoption* from respondents, and it is significant as $p\text{-value} = .002$. Also, $B=0.213$ was the rate at which *privacy risk* varied with *COVID-19message adoption* based on the number of respondents, with $\beta=0.143$ (14.3%) which measured the influence of *privacy risk* on *COVID-19message adoption*. The β is significant as $p\text{-value} = .002$. The $R^2 = .223$ represented the total variation of *privacy risk* on *COVID-19 message adoption* in the model which can be adjusted for at 19.1% (Adj. $R^2 = .191$), suggesting that 22.3 % of respondents were likely to adopt COVID-19 messages as a result of *privacy risk*. The overall model was significant since $F_{(0.05; 1, 121)} = 3.07$ ($p=.002$) while 3.07 per cent of the respondents adopted COVID-19 messages based on *privacy risk*. By inference, the coefficients of the model was statistically significant

(.002) < 0.05 (level of significance). Therefore, *privacy risk* was a significant predictor of COVID-19 message adoption among social media users.

Table 5: Influence of Social Risk as Perceived Risk on COVID-19 Message Adoption

Independent Variables	B	SE	B	T	P
Constant	3.309	.174	-	18.975	.000
Social risk	.531	.066	.183	8.045	.000

$F_{(0.05; 1, 121)} = 5.15$, $R^2 = .413$; Adjusted $R^2 = .381$, $P = .000$

Dependent Variable: Message Adoption

From Table 5, $B=3.309$ indicated the expected overall average of *COVID-19 message adoption* from respondents, and it is significant as $p\text{-value} = .000$. Also, $B = 0.531$ is the rate at which *social risk* varied with *COVID-19 message adoption* based on the number of respondents, with $\beta=0.183$ (18.3%) which measured the influence of *social risk* on *COVID-19 message adoption*. The β is significant as $p\text{-value} = .000$. The $R^2 = .413$ represented the total variation of *social risk* on *COVID-19 message adoption* in the model, which can be adjusted for at 38.1% (Adj. $R^2 = .381$), suggesting that 41.3 % of respondents were likely to adopt COVID-19 messages as a result of *social risk*. The overall model was significant since $F_{(0.05; 1, 121)} = 5.15$ ($p=.000$) while 5.15 per cent of the respondents adopted COVID-19 messages based on *social risk*. By inference, the coefficients of the model was statistically significant ($.000$) < 0.05 (level of significance). Therefore, *social risk* was a significant predictor of COVID-19 message adoption among social media users.

Discussion of Findings

The results showed that the four dimensions of perceived risks, including emotionality, mental intangibility, privacy risk, and social risk, significantly influenced the adoption of COVID-19 preventive messages. In other words, perceived risks are measured from four dimensions to determine the influence of each of the dimensions on COVID-19 message adoption among the respondents. This is consistent with results from Li et al. (2016), which established a significant influence between social media and health information adoption. This result is

inconsistent with Zhang and Zhao's (2017) findings, which claimed that adopting health information on social media depends on their perceived benefits. By implication, health information may also be adopted when the perceived risks outweigh the perceived benefits among social media users.

On the instrumentation, unlike Li et al. (2016) which measured perceived risks from five dimensions including mental intangibility, privacy risk, time risk, social risk and psychological risk), this study conceived and measured perceived risks by adding *emotionality* to replace time risk and psychological risk. Also, Li et al. (2016) examined the impact of perceived risks on people's intention to seek and share health information. However, the result of this study showed that adopting COVID-19 health information on social media depends on perceived risks among respondents. The result further revealed that perceived risks associated with social media information on COVID-19 may influence preventative health behaviours among the studied respondents who were dispersed across socio-economic status, educational levels and age.

On the use of the HBM, which was adopted to examine the influence of perceived risks (including emotionality, mental intangibility, privacy risk and social risk) on the adoption of COVID-19 information on social media, the study is consistent with Hochbaum (1956) and Becker et al. (1974). Thus, perceived risks had a significant and direct influence on the adoption of COVID-19 preventive message adoption.

Conclusion and Recommendations

Based on the findings, it could be inferred that perceived risks as measured from four dimensions: emotionality, mental intangibility, privacy risk and social risk, influenced respondents' adoption of messages on COVID-19 in terms of responses and other preventative behaviours. The use of perceived risks as operationalised in the study suggested that predictors for adopting COVID-19 responses on social media depend on respondents' perceptions of the nature and degree of risks involved. By implication, respondents might not see the need to act

on COVID-related information if they are not triggered by certain risks to which they could relate.

Furthermore, the study's findings established a significant influence between risk perceptions and the adoption of COVID-19 responses as encountered on social media. Thus, a misleading post highlighting associated risks relating to a particular health behaviour may be erroneously adopted as a genuine claim by some people if a counter-narrative is not readily available. This study's findings partly explain the reason for palpable fears (risks) often exhibited among health information seekers regarding the proliferation of misleading social media posts on COVID-19.

However, in view of the relative sample size of the study, it is, therefore, recommended that studies should target more respondents in the light of the perceived risks as operationalised in the study. This becomes necessary to enhance the level of consistency as well as generalisation of the results. Also, the influence of other factors such as social trust, source credibility, and the likes on the adoption of COVID-19 information may be considered by other researchers. Also, the results would go a long way in guiding the communication professionals in using perceived risks as a communication appeal in their COVID-19 campaign as the study's results have indicated the effectiveness of using risks as the basis for the adoption of health information on social media.

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