

ANTECEDENTS TO CONSUMERS' ATTITUDE TOWARDS MOBILE ADVERTISING COVID-19 COMMUNICATIONS: A POST-PANDEMIC SOUTH AFRICAN PERSPECTIVE

Reginald Masocha*

University of Limpopo, Sovenga, South Africa

Abstract

The Covid-19 pandemic, although officially declared over, continues to influence global communication behaviors. In this context, mobile communication devices have become essential tools for both business and non-business communicators. This study investigates the antecedents shaping consumers' attitudes towards Covid-19-related communications delivered via mobile advertising in South Africa. Using a quantitative approach, data were collected through an online survey with purposive sampling, and hypotheses were tested using one-way ANOVA. The findings reveal that despite the widespread ownership and use of mobile devices and the severity of Covid-19, consumers do not automatically engage with mobile communications. Key factors influencing attitudes include message credibility, perceived relevance, and emotional appeal. The study highlights the need for communicators to strategically consider these elements to enhance message effectiveness. By identifying critical antecedents to mobile communication acceptance in a post-pandemic environment, this research contributes to the broader understanding of consumer behavior in mobile advertising and offers practical implications for designing more effective health and commercial communication strategies.

Keywords: Covid 19, Consumer Attitude, Communications, Antecedents.

Antecedents to
Consumers'
Attitude Towards
Mobile
Advertising
Covid-19
Communications:
A Post-Pandemic
South African
Perspective

Received
September 16th 2024
Review
December 2nd 2024
Publish
December 31st 2024



AFEBI Management
and Business
Review (AMBR)

P-ISSN [2548- 530X](#)
E-ISSN [2548-5318](#)

*Corresponding author. Email addresses: reemasocha@gmail.com

The COVID-19 pandemic, widely regarded as the greatest global challenge since World War II (Al-Qudah et al., 2024; Matiza, 2022; WHO, 2023), has left lingering effects despite official declarations of its end. New variants such as FLiRT, a member of the Omicron family, continue to emerge, with the KP.2 strain accounting for a significant share of new infections in countries like the United States, United Kingdom, and Australia (Rauf, 2024; Ducharme, 2024). These developments underscore the persistent threat of COVID-19 and the necessity for ongoing vigilance. One critical response to the pandemic involved minimizing physical interactions through lockdowns and social distancing, profoundly altering social, educational, and economic systems worldwide (Zhao et al., 2021; Hoekstra & Leeflang, 2020; Agbehadji et al., 2021). In Africa, these measures were implemented against a backdrop of unique socio-economic challenges, including high unemployment, poverty, fragile healthcare systems, and political instability (McCreesh et al., 2021; Mbunge et al., 2020; Sewpaul et al., 2023). These shifts accelerated reliance on mobile technologies for communication, making mobile devices indispensable for both social connection and information dissemination. However, the effectiveness of mobile-based COVID-19 communications depends largely on consumers' attitudes towards such messages. In this context, this study investigates the antecedents shaping South African consumers' attitudes toward COVID-19-related mobile advertising in the post-pandemic period, offering insights for designing more effective health and commercial communication strategies.

In the middle of this pandemic, businesses across the world communications had to rely on remote mechanisms of reaching the general populace. With the ubiquitous adoption of mobile phones, there has been increasingly reliance and the proliferation of mobile communications in the contemporary Covid 19 battle, globally (Jang, et al., 2024; Al-Qudah et al., 2024). The Covid 19 pandemic manifestation has transpired while the world has been in the inception of the Fourth Industrial Revolution. The 4th Industrial Revolution (4IR) integrates IT systems with physical systems to get a cyberphysical system that brings the real world in a virtual reality (Petrillo et al., 2018). One of the primary of attributes of 4IR is the Internet of Things (IOT) which represents a paradigm shift from physical interaction towards virtual connectivity utilising efficient technological gadgets (Alsulaimani & Islam 2022). Thus, with the contemporary 4IR pre-eminence coupled with the uncertainties embedded in the Covid 19 pandemic marketers have numerous reasons to appreciate the progression in mobile technologies and devices (Agbehadji et al., 2021; Lin & Shun-Hsyung 2023). As marketers are increasingly reckoning the myriad edges emanating from mobile platforms, one area that has been significantly impacted is advertising (Tsang et al., 2004).

Mobile phones have become embedded in the lives of contemporary consumers, thereby posing a new typology of consumers with new opportunities for communicators (Hashim & Sajali 2018; Uwalaka 2023; Madakam & Tripathi 2021). According to Lin & Shun-Hsyung (2023), mobile communication technologies were instrumental in combating the pandemic. Extant studies have researched antecedents to attitude in mobile advertising by customers (Hashim & Sajali 2018). In the face of the Coronavirus pandemic, the attitude of masses has been one of the challenging aspects in mitigating the adverse impacts of the pandemic (Elnadi et al. 2021). Particularly, in the sub-Saharan Africa, rampant ignorance, misinformation all culminating in negative attitude have been observed (Nwagbara et al. 2021). Behaviours of consumers at large have been significantly modified due to COVID 19 and so many shifts have been identified in consumption patterns (Kansiime et al., 2021; Pakravan - Charvadeh et al., 2021; Prentice et al., 2021).

Prior research on traditional media attests that attitude towards an advertisement are often associated with the media type (Hashim & Sajali 2018). Thus, in determining the effectiveness of mobile advertising towards producing positive brand attitude intentions consumers' attitude towards mobile advertising are a paramount underpinning factor. Similarly, previous works on internet advertising also indicated that consumer attitude is a paramount attribute in establishing internet advertising effectiveness (Goldsmith & Lafferty 2002).

The COVID-19 pandemic has been found to leave lasting impacts on human behavior worldwide (Das et al., 2022; Billore & Anisimova, 2021), raising ongoing questions about appropriate behavioral responses to future global pandemics, crises, and disasters (Palau-Saumell et al., 2021). In response to the pandemic, businesses and governments actively engaged in communicating with consumers through mobile platforms as part of mitigation efforts. Given the enduring influence of the COVID-19 pandemic and the potential for future global disruptions, combined with the rapid growth of mobile advertising, there is a pressing need to explore consumer attitudes towards mobile communications. Accordingly, this study examines how COVID-19 has influenced changes in consumer behavior, specifically regarding their attitudes toward mobile advertising initiated by firms.

Research Hypotheses

- H1: Informativeness influences attitude in mobile advertising of Covid 19 communications.
- H2: Irritation influences attitude in mobile advertising of Covid 19 communications.
- H3: Entertainment influences attitude in mobile advertising of Covid 19 communications.
- H4: Personalisation influences attitude in mobile advertising of Covid 19 communications.
- H5: Credibility influences attitude in mobile advertising of Covid 19 communications.

LITERATURE STUDY

Mobile Advertising

To date, advertising is the prominently discussed and utilised communication tool within the promotional mix especially with the advent of technology. Advertising is an instrumental promotional tool, and the intensive permeation of portable phones has been accompanied with a growing reliance on mobile advertisements by marketers in the contemporary world (Masocha 2018). The interactivity of mobile gadgets has curved-in interactivity in advertising which has conspicuously been deemed a momentous differentiating attribute from traditional media advertising (Bamba & Barnes 2007; Madakam & Tripathi 2021). Interactivity implies that mobile audience have the potential to “choose and respond” to an exact advertisement of their preference (Stewart & Pavlou 2002).

Currently, there are different types of mobile advertisements include SMS, MMS, Banners and short cut icons on the websites (Kavassalis et al., 2003). The short messaging service (SMS) or text messaging is an entrenched application in the marketing field and has been rapidly assimilated in the communication media mix as a method of direct advertising (Ahmed et al., 2019; Salo 2012). SMS advertising constitutes the most popular mobile advertising channel advertisement. It is also the least cost and modest mobile advertising technique as it simply conveys SMS advertisements using a text format. Through push strategy, marketers can utilise the SMS platform to convey text messages of 160 characters at most to target recipients with mobile phones from one user to another (Watson et al., 2013). Mobile advertising is considered as the utilisation of contemporary mobile technologies to reach customers on their mobile communication portals with advertising messages and content (Al-Qudah et al., 2024; Watson et al., 2013; Madakam & Tripathi 2021). Mobile communications offer marketers numerous benefits in comparison to traditional media. For instance, utilisation of mobile devices in advertising means that marketers can reach large target audience with streamlined and collaborative messages at low costs, irrespective of location disparities (Zhao et al., 2021; Masocha 2018).

Mobile phones also enable marketers to utilise multimedia messaging services (MMS) which is rapidly utilised in mobile advertising (Cheng et al. 2009). MMS is comparatively different from SMS as it enables the conveyance of multimedia messages that integrate text and audio-visuals through mobile communication gadgets (Kavassalis et al., 2003). However, the adoption of MMS as a mobile advertising technique is significantly low in many countries despite its capability to convey movies, games, and even accomplishing online shopping. On the contrary, mobile web banner advertising is rapidly growing on many mobile platforms (Komulainen et al., 2019). With United States recording 78% of the aggregate banner expenditure going towards mobile banners and the remainder (22%) being for desktop expenditure (Osinga et al., 2019).

Antecedents to Consumers' Attitude

Consumers' attitude is an extremely parental notion in understanding consumer behaviour notwithstanding the incessant divergent views pertaining to the definition of the concept amongst researchers within the advertising psychology discourse (Mbawuni & Nimako 2018). According to El-Adly (2010), attitude is an overall, enduring evaluation of concepts or objects, such as persons, brands or services. The term attitude is further defined as a learnt inclination of individuals which influences how one responds to a specific thing (or notion) or a number of objects (or thoughts) (Ajzen & Fishbein 2000). Attitude pertains to a person's persistent complimentary or contrary temperaments, frame of mind, and behavioural predispositions concerning some object or notion. Thus, the common understanding shared amongst researchers is that attitude pertains to an individual's way of responding towards a specific object formed from their past and present interactions (Mbawuni & Nimako 2018).

Personalisation and Attitude

Personalisation pertains to customisation or tailoring the common features in an advertisement communication in order specifically identify the recipient (Micucci et al., 2017). Kwasawneh and Shuhaiber (2013) argue that personalisation enhances the quality of relationships between the marketer and the mobile users. Thus, the experience of firms and consumers can be improved by personalised advertising (Humbani & Jordaan 2018).

Consumer attitude can be improved by personalising the mobile advertising message thereby eventually increasing the impact of the message (Micucci et al., 2017). In general, mobile commerce posits a substantial scope for personalisation, owing to the propensity of mobile devices in availing personal data of subscribers.

As mobile advertisers are permitted access to consumers' demographic and geographic data, personalisation is enhanced in mobile commerce thereby growing the eminence of mobile phones (Hashim & Sajali 2018). In order for advertisers to be successful over the target market, a well-structured and maintained database need to be maintained. Personalisation makes it advantageous for advertisers to collect consumers' feedback and their choices, thus, customer relations are also improved (Giao & Vuong 2020). Apart from improved relations, personalisation has the potential to make consumers become more favourable towards mobile advertisements, through improving consumers' attitude (Humbani & Jordaan 2018). Paradoxically, marketers should intensively scrutinise personalisation of their advertisements as it is associated with costs such as, intrusion, which may prompt and lead to negative attitude towards a communication (de Groot 2022). Thus, this study hypothesises a relationship between attitude and personalisation as pertains to mobile advertising in the Covid 19 pandemic.

Entertainment and Attitude

Entertainment relates to the pleasure derived from a conveyed message and satisfaction of a customers' desire (Zabadi et al., 2012). Customer loyalty is bolstered, and additional worth is moulded for customers through entertainment which is encapsulated in mobile advertising (Hashim & Sajali 2018). Through creativity presented by contemporary mobile communication devices, advertisers can craft entertaining messages subsequently causing positive attitude toward mobile marketing communications among consumers (Bamba & Barnes 2007). Entertainment in mobile advertising is a paramount attribute that has an impact on overall attitude (Giao & Vuong 2020). Results on latent studies on the attitude of users on mobile advertising, showed that a nexus exists between entertainment and attitude in mobile advertising (Bamba & Barnes 2007).

Ahmed and Ashfaq (2013) investigated how entertainment is associated to consumer attitude in mobile advertising and established that entertainment has a key role in mobile advertising. Similarly, Blanco, Blasco and Azorin (2010) ascertained that marketers needed to ensure that entertainment is encapsulated in their advertisements as this cultivated positive attitude towards any form of advertising. In this regard, the present study sought to establish the extent to which entertainment in Covid 19 pandemic mobile advertising influenced positive attitude during the.

Informativeness and Attitude

Providing vital information is an important attribute in marketing communications (Gaber et al., 2019). Lim et al. (2019) assert m-advertising successfulness relies on the degree of informativeness. The concept of informativeness relates to the extent to which the information contained in an advertisement is pertinent and apprise. As a comparatively novel marketing channel, mobile advertising is proficient in content and information conveyance, thus enhancing prospects of patronisation of mobile marketing by consumers (Hashim & Sajali 2018). Thus, mobile marketing is also advantageous in the area of informativeness by providing customers high accessibility to information and enriched content (Giao & Vuong 2020).

The chief variance is that personalisation pertains to the individual partialities attuned and peculiar to each individual customer while informativeness is how effectually applicable information gets to be conveyed (Kim & Lee 2015). An Iranian study of 167 young mobile phone users discovered that informativeness has an affirmative relationship with consumer attitude in mobile advertising (Keshtgary & Khajehpour 2011). Kwek et al. (2010) studied the bearing of informativeness on consumer attitude in mobile advertising among tertiary students in Malaysia and found that a positive nexus transpired between the two variables. In this regard, the present study sought to establish the extent to which informativeness in mobile advertising influenced positive attitude during the Covid 19 pandemic. Some studies in Africa, have hinted that there were prevalent negative attitude towards Covid 19 in general which were alluded to lack of information within the population (Nwagbara et al. 2021). Thus, this study hypothesised that informativeness significantly influences consumers' attitude towards mobile advertising in the light of the Covid 19 pandemic.

Irritation and Attitude

According to Carrol et al. (2007), irritation in advertising is when a recipient perceives an advertisement with displeasure. Although mobile advertising allows for personalisation, interruption that occurs when these advertisements pop up on a mobile device while searching the internet cannot easily become eliminated (Kim & Lee 2015). Customers may feel irate upon receiving a mobile advertisement message and consumers may lose interest when they are overwhelmed with irritating mobile advertisements (Hashim & Sajali 2018). The mobile marketing platform is increasingly experiencing heightened competition thus, advertisers sometimes may employ practices that exasperate, affront, or are deemed machiavellian on the part of consumers (Kim & Lee 2015).

Consumers are prone to snub most advertisements that appear in their inboxes without their consent being first sought as they consider such messages as interruptions (Sabir & Kirmani 2020). On the other hand, Scharl et al., (2005) reiterates that there is a need for advertisers to ensure that messages conveyed through mobile advertising are precise and not lengthy. According to Masocha (2018), mobile communication gadgets are susceptible to constraints in capacity, thus messages that are not lengthy are convenient and likely to be non-irritating for consumers. In a Korean study by Koo et al. (2012), researching generation Y mobile consumers, irritation was found as an antecedent to attitude in m-advertising. Comparable findings were also attained in Pakistan, that irritation influenced significantly the attitude of customers regarding SMS advertising (Muzaffar & Kamran 2011). Thus, this study hypothesised that irritation significantly influences consumers' attitude towards mobile advertising from the Covid 19 pandemic perspective.

Credibility and Attitude

Advertisement credibility is defined by Stewart and Pavlou (2002) as how consumers perceive the brand in regard to being truthful and believable according to that which is mentioned in the message. Credibility is deemed as a consumer's regard of how candid and credible an advertisement is (Kim & Lee 2015; Hashim & Sajali 2018). The authenticity of an advertisement depends on a myriad of attributes which encapsulate the firm's integrity as the conveyer of the communication (Goldsmith & Newel 2002). Thus, in this case, the consumer attitude towards Covid 19 conveying advisement can possibly depend on the credibility perspectives of messages transmitted to mobile phone users. According to Hayland-Wood et al. (2021), as a strategy to establish credibility in the midst of the pandemic, trusted and authoritative agencies such as medical and public-health experts should communicate critical messages.

The credibility of the source of message is essential in determining consumer attitude because it pertains to the degree to which consumers consider the aptitude of a firm to create and provide offerings that lead to the gratification of customers (Muzaffar & Kamran 2011). Credibility has been observed to significantly influence the attitude of customers toward an advertisement and accompanying brand as well as the purchasing intentions (Muzaffar & Kamran 2011). However, credibility in advertising is increasingly facing challenges, as such marketers are coherently facing the pressure to find inventive techniques to connect with their target audience (da Silva et al., 2024). According to Giao and Vuong (2020), a printed message achieves less credibility than one conveyed on the internet except that particular message is conveyed by a well-established brand. Credibility of the advertisement is reckoned as a paramount factor in shaping the attitude toward advertisement. In this regard, there is need to establish the impact of credibility of messages that delivered to mobile devices pertaining to the Covid 19 virus. In the inception of the pandemic, questions were posed concerning the credibility of the virus and efforts by the World Health Organisations (WHO) and governments across the globe were met with widespread severe resistance (Rutledge 2020). Empirical African studies have established that the prevalence of negative attitude may be primarily because of lack of trust with governments and world bodies in general (Nwagbara et al. 2021). Thus, this study hypothesised that credibility significantly influences consumers' attitude towards mobile advertising from the Covid 19 pandemic perspective.

RESEARCH METHODOLOGY

This study employed a quantitative research design to numerically analyze data related to consumer attitudes toward mobile COVID-19 communications. The target population consisted of individuals from all nine provinces of South Africa who own smartphones and had received mobile advertisements related to COVID-19 from either government agencies or businesses. Purposive sampling was applied, selecting participants who met specific inclusion criteria, namely active smartphone users who had been exposed to COVID-19-related mobile advertisements.

Data were collected through an internet-based self-completion questionnaire, which primarily consisted of closed-ended Likert-scale items. Prior to full deployment, the questionnaire was pre-tested with a small group of respondents to assess clarity, relevance, and alignment with the research objectives. Necessary adjustments were made based on the pre-test feedback to ensure content validity.

Data analysis was conducted using the SPSS version 29. Descriptive statistics summarized the demographic characteristics of the sample, while inferential statistics—specifically one-way ANOVA, Spearman's correlation coefficient, and Cronbach's alpha—were used to test the hypotheses and evaluate the reliability and validity of the constructs. A Cronbach's alpha value of 0.70 or higher was considered acceptable for reliability. Divergent validity was assessed through Spearman's correlations to ensure constructs measured distinct concepts.

Ethical considerations were carefully addressed. Participants' rights and confidentiality were protected throughout the research process. Participation was entirely voluntary, and respondents could withdraw at any point without consequence. Although formal ethical approval is not mentioned, the study adhered strictly to ethical research principles in data collection and reporting.

An aggregate of 216 persons from across South Africa were involved as respondents to survey which transpired between the month of January to March 2023. The data was analysed using the IBM Statistical Package for Social Science (IBM SPSS) version 29. The demonstration of data is provided through an array of mechanisms such as frequencies, tables, and percentages.

Demographic Characteristics

The demographic data collected included gender, age, and education level. Table 1 underneath shows that the gender of the participants with regards to the sample presentation, 47% were males and 53% were females.

Table 1.
Sample
Description

Variable	Frequency
Gender	Male (47%), Female (53%)
Age in years	Below 25 (20%), 25-35 (37%), 36-45 (35%), 46-55 (5%), Above (3%)
Qualifications	Undergrad (64%), Postgrad (11%), Matric (19%), diploma/certificate
Monthly income	R0-R1000 (31%), R1001-R3000 (49%), R3001-R5000 (7%), Above
Ownership of	Android smartphone (88%), iPhone (8%), Android tablet (4%)

In terms of age, 20% were below 25 years old, 37% (25-35), 35% (36-45), and 5% (45-55). As for the respondents' educational qualifications, 19% of the respondents had a high school qualification, 6% had post matric diploma or certificate, 64% had post-matric degree; and 11% had a postgraduate degree. The data further shown that 31% of the participants received the average monthly earnings of R0-R1000, 49% receive R1001-R3000; 7% receive R3001-5000 and 13% receive R5001 and above. Finally, 88% of the studied millennials owned android smartphones, 8% iPhone and 4% android tablets.

Descriptive, Reliability and Validity Statistics

Table below shows the mean graph below shows that informativeness had the uppermost weighted score, followed by personalisation in second place, then irritation and lastly credibility. Furthermore, reliability and validity of questionnaire are shown in Table 2 below shows that the coefficient range of Cronbach's alpha for the variables was 0.801, which is above 0.7. Therefore, this concludes that the items in the questionnaire for this study are reliable.

Table 2.
Descriptive, Factor
loadings and
Cronbach's alpha

Constructs	Items	Min	Max	Mean	Std. Dev	Loadings	Cronbach
Personalisation	PE1	2	5	3.49	.934	,906	0.854
	PE2	1	5	3.03	1.126	,824	
	PE3	1	5	3.40	1.134	,725	
	PE4	1	5	3.19	1.146	,732	
Entertainment	EN1	1	5	2.71	1.204	,693	0.730
	EN2	1	5	3.17	1.061	,764	
	EN3	1	5	2.96	1.192	,783	
	EN4	1	5	2.65	1.344	,776	
Informative	IN1	1	5	3.72	.982	,898	0.901
	IN2	1	5	3.61	.848	,925	
	IN3	2	5	3.57	.901	,906	
	IN4	1	5	2.75	1.045	,965	
Irritation	IR1	1	5	3.22	1.456	,848	0.852
	IR2	1	5	3.25	1.422	,908	
	IR3	1	5	3.12	1.352	,816	
	IR4	1	5	3.32	1.402	,684	

Credibility	CR1	1	5	3.19	1.171	,896	0.784
	CR2	1	5	3.36	.969	,704	
	CR3	1	5	3.29	.999	,806	
	CR4	1	5	2.78	1.091	,884	
Attitude	AT1	1	5	3.44	1.086	,984	0.824
	AT2	1	5	3.50	1.021	,748	
	AT3	1	5	2.97	1.233	,806	
	AT4	1	5	3.40	1.109	,716	
	AT5	1	5	3.12	1.113	,764	
	AT6	1	5	3.12	1.198	,683	

Antecedents To Consumers' Attitude Towards Mobile Advertising Covid-19 Communications: A Post-Pandemic South African Perspective

Table 3 below shows that credibility and personalisation have the strongest correlation (0.513) while irritation and credibility have the lowest value (0.35). There were no multicollinearity issues in this study with the correlation statistics being in between 0.35 to 0.513, which is all less than 0.9.

	1	2	3	4	5	6
Personalisation (1)	1					
Entertainment (2)	.344**	1				
Informative (3)	.141	.290*	1			
Irritation (4)	.135	.483**	.214	1		
Credibility (5)	.513**	.199	.096	.035	1	
Attitude (6)	.130	.360**	.082	.109	.127	1

Table 3. Pearson's Correlation Coefficients Analysis

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Source: Own calculations

Testing of Hypotheses

This section discusses the testing of the research hypotheses through the statistical analysis that are presented in conjunction with tables of findings. Hypothesis analysis was executed with the significance level established at $p=0.05$ level. The hypotheses in the light of all these investigations were tested using One-way ANOVA test and the results are shown in Table 4 beneath. The first hypothesis (H1) stated that informativeness and attitude in mobile advertising are related. Using One-way ANOVA testing, the F-static was 1.988 with a p-value of 0.038 which is below 0.05, meaning the null hypothesis is rejected. Thus, it is established that there is a nexus between informativeness and consumer attitude concerning mobile advertising.

Hypotheses	Sum of Squares	Df	Mean Square	F	Sig.	Decision
H1: Informativeness and attitude	167.983	21	7.999	1.98	.038	Supported
H2: Irritation and attitude	628.654	21	29.936	2.380	.004	Supported
H3: Entertainment and attitude	628.629	21	29.935	2.882	.001	Supported
H4: Personalisation and attitude	252.591	21	12.028	2.430	.009	Supported
H5: Credibility and attitude	272.577	21	12.980	1.971	.026	Supported

Table 4. Pearson's Hypothesis one testing

Source: Own calculations

The second hypothesis (H2) specified that irritation and consumer attitude towards mobile advertisements are related. According to the One-way ANOVA testing results ($F= 2.380$; $p = 0.04$) the null hypothesis is also rejected, thus, ultimately this implies that there is a nexus between irritation and consumer attitude towards mobile advertisements since the p-value is less than the prescribed 0.05 value. Pertaining to the testing of the third hypothesis, the relationship was found to be significant ($F=2.882$; $p=0.001$). Subsequently, with the p-value being lower than 0.05, the null hypothesis is rejected and the alternative which stipulated that entertainment and consumer attitude are related is upheld.

The fourth hypothesis stated that there is a relationship between personalisation and a consumer attitude towards mobile advertising. Accordingly, the null hypothesis testing at alpha level 0.05 is rejected in this regard ($F=12.980$; $p =0.026$) going by the outcome posited in Table 4. The alternative hypothesis stipulating that personalisation and consumer attitude towards mobile advertising are related is upheld. The fifth hypothesis stated that credibility and consumer attitude are related in mobile advertising. Also, the null hypothesis is rejected at $F=12.980$ and $p=0.026$. Conclusively, the alternative hypothesis stipulating that credibility and consumer attitude towards mobile advertising are related is supported.

Discussion

The results indicate that all the hypotheses were supported, with the null hypotheses rejected at a significance level of less than 0.05. This confirms that informativeness, irritation, credibility, and personalisation are significantly associated with consumers' attitudes towards mobile advertising in COVID-19 communications. These findings align with previous research on mobile advertising attitudes (Hashim & Sajali, 2018). In the context of South Africa, where mobile penetration is high but trust in formal communication channels varies, the significance of credibility may reflect heightened consumer sensitivity to misinformation during the pandemic. Similarly, irritation may have been amplified due to the saturation of COVID-19 messaging, leading to potential message fatigue among mobile users.

While all four factors significantly influenced attitudes, the analysis revealed that entertainment was the strongest determinant. This finding is consistent with prior studies (Bamba & Barnes, 2007; Koo, 2010; Ahmadi, 2013) emphasizing that entertainment enhances consumer engagement with mobile advertisements. In a culturally diverse society like South Africa, where mobile communications often serve both informational and entertainment purposes, the ability of a message to entertain appears critical for positive reception. However, the study also acknowledges that consumer responses to mobile advertising may vary across demographic and cultural segments, suggesting the need for more targeted communication strategies. Future research could further investigate how cultural dimensions, message fatigue, and trust dynamics interact with mobile advertising effectiveness in post-pandemic environments.

Furthermore, the role of personalisation of messages was a critical aspect in determining the success of Covid19 communications. The concept of personalisation entails that Covid19 communicators needed to first understand the behavioural patterns of their audience before conveying messages to them (Mehta & Udita 2020). Thus, on a large scale most Covid19 communications were found to be inconsistent with the expectations of the targeted audience. Generalisation of messages was therefore deemed ineffective and undesirable in communicating disaster issues in the context of Covid 19. Finally, credibility as an antecedent to consumers' attitude towards Covid 19 communications was also found to be significantly influential. According to da Silva et al. (2024), credibility of the source of information and the message itself influenced the perceptions and actions of individuals in the face of the pandemic due to the risks embedded therein. Thus, without the source of information being deemed, authentic, competent, and trusty the Covid 19 communications were likely to be met with high levels of apprehensiveness.

CONCLUSION

In conclusion, the significant development in, and rapid adoption of, mobile technologies have led to the development and introduction of mobile advertising, which has altered the world of marketing in many ways. The impact of the Covid 19 pandemic has impacted managerial practices and its implications have been unsparing towards businesses and societies. The initial expectations were that due to the nature of Covid19 and its deadliness any form of message conveyed to customers would be received and welcomed as instrumental. Albeit this study has indicated that there is need on the part of marketers, communicators and government to do more for the messages to be accepted. Consequently, the study unveiled that the success of Covid19 mobile advertising largely depends on consumers' receptiveness towards it in the past and, at present.

The research indicates that in comparison to previous perceptions towards Covid 19, mobile advertising the current findings establish that consumers are more accepting to crisis information when it encapsulates the drivers or attitudinal prerequisites. Therefore, it is important for marketers whether in government or business when faced with a crisis and risks such as Covid 19 to understand consumers attitude in order to accelerate the.

reception of advertising at mobile communication platforms. For advertisers it is important to address the issue of how mobile advertising is less irritating as well as more credible, interesting, informative and personalised. In this study the respondents regarded covid19 mobile advertisements as irritating, i.e. they were annoyed from receiving mobile advertisements. Thus, if the mobile advertisers can present the mobile advertisements pleasingly with appropriate personalisation, informativeness and better credibility, as well as less irritation consumers will not become annoyed and there is fair possibility that they engage in ads they feel they are relevant. For instance, since consumers considered the entertaining aspect of Covid19 messages on whether they would respond to these communications in a positive or negative manner, communicators needed to encapsulate some exciting statistics and developments in order to captivate the attention of audiences.

REFERENCES

- Agbehadji, I., Awuzie, B.O., Ngowi, A. (2021). COVID-19 Pandemic Waves: 4IR Technology Utilisation in Multi-Sector Economy. *Sustainability*, 13. 10168. 10.3390/su131810168.
- Ahmed, R.R., Streimikiene, D., Berchtold, G., Vveinhardt, J., Channar, Z.A., Soomro, R.H. (2019). Effectiveness of Online Digital Media Advertising as A Strategic Tool for Building Brand Sustainability: Evidence from FMCGs and Services Sectors of Pakistan. *Sustainability*, 11(12): 3436. <https://doi.org/10.3390/su11123436>
- Ahmed, S., Ashfaq, A. (2013). Impact of Advertising on Consumers' buying behavior through Persuasiveness, Brand Image, and Celebrity endorsement. *Global Media Journal*, 6: 149.
- Ajzen, I., Fishbein, M. (2000). Attitude and the attitude-behavior relation: Reasoned and automatic processes. *European review of social psychology*, 11: 1-33.
- Al-Qudah, A.A., Al-Okaily, M., Alqudah, G., Ghazlat, A. (2024). Mobile payment adoption in the time of the COVID-19 pandemic. *Electronic Commerce Research*, 24, 427–451 <https://doi.org/10.1007/s10660-022-09577-1>
- Alsulaimani, B., Islam, A. (2022). Impact of 4ir technology and its impact on the current deployment. *International Journal of Computer Science & Information Technology (IJCSIT)*, 14(4), 10.48550/arXiv.2209.01791.
- Asombang, A.W., Akintola-Ogunremi, R., Mateyo, K.J., Mwabe, J., Kpodo, J., Ani- Amponsah, M., Monteiro, F.J.G., Kasongo, N., Wilson, M.M. (2020). COVID-19 in Africa: The nuances of social distancing and handwashing. *Medical Journal of Zambia*, 47(3): 165 – 169.:
- Bamba, F., & Barnes, S.J. (2007). SMS advertising, permission and the consumer: a study. *Business Process Management Journal*, (13): 815-829.
- Barnes, Stuart J., Scornavacca, E. (2004). Mobile marketing: The role of permission and acceptance. *International Journal of Mobile Communications*, (2):128-139. DOI: 10.1504/IJMC.2004.004663
- Billore, S., Anisimova, T. (2021). Panic buying research: A systematic literature review and future research agenda. *International Journal of Consumer Studies*, (45): 777–804. 10.1111/ijcs.12669
- Blanco, C.F., Blasco M.G., Azorín I.I. (2010). Entertainment and Informativeness as Precursory Factors of Successful Mobile Advertising Message. *Communications of the IBIMA* :1-11.
- Carrol, Amy, Scornavacca Eusebio, and Fletcher Keith. 2007. Consumer perceptions and attitude towards SMS advertising: recent evidence from New Zealand. *International Journal of Advertising*, (26): 79–98.
- Chang, A.Y. (2016). Effects of Mobile Advertisement and Advertisement Involvement on Purchase Intention in Tourism Industry. *Filomat* (30): 4235–4242.
- Cheng, J., Blankson, C., Wang, E., Chen, L. (2009). Consumer attitude and interactive digital advertising. *International Journal of Advertising* (28): 501-525.
- da Silva, R.E., Novaes, M.R.C.G., de Oliveira, C., Guilhem, D.B. (2024). The impact of social cohesion and risk communication on excess mortality due to COVID-19 in 213 countries: a retrospective analysis. *BMC Public Health* 24, 1598. <https://doi.org/10.1186/s12889-024-19076-7>
- Das, D., Sarkar, A., Debroy, A. (2022). Impact of COVID-19 on changing consumer behaviour: Lessons from an emerging economy. *International Journal of Consumer Study*, 46(3):692-715. doi: 10.1111/ijcs.12786.
- de Groot, J.I.M. (2022). The Personalization Paradox in Facebook Advertising: The Mediating Effect of Relevance on the Personalization-Brand Attitude Relationship and the Moderating Effect of Intrusiveness. *Journal of Interactive Advertising*, 22(1), 57–74. <https://doi.org/10.1080/15252019.2022.2032492>
- Ducharme, J. (2024). What to Know About the 'FLiRT' Variants of COVID-19. *Time Magazine*. [Online] Available: <https://time.com/6972143/covid-19-flirt-variants-kp-2/> Accessed: 23/05/2024
- El-Adly, M.I. (2010). The impact of advertising attitude on the intensity of TV ads avoiding behavior. *International Journal of Business and Social Science*, 1: 1-14.
- Elnadi, H., Odetokun, I.A., Bolarinwa, O., Ahmed, Z., Okechukwu, O., Al-Mustapha A.I. (2021). Correction: Knowledge, attitude, and perceptions towards the 2019 Coronavirus Pandemic: A bi-national survey in Africa. *Plos one*.;16(2): e0247351. pmid:33596272

- Gaber, H.R., Wright, L.T., Kooli, K. (2019). Consumer Attitude towards Instagram Advertisements in Egypt: The Role of the Perceived Advertising Value and Personalization. *Cogent Business & Management*, 6(1), DOI:10.1080/23311975.2019.1618431
- Giao, H.N.K., Vuong, B.N. (2020). Vietnamese Consumer Attitude towards Smartphone Advertising. *Journal of Economics and Business* 7: 195-204.
- Goldsmith, R.E., Lafferty, B.A. (2002). Consumer response to Web sites and their influence on advertising effectiveness. *Internet Research*, 12: 318-328. <https://doi.org/10.1108/10662240210438407>
- Hashim, N.H., Sajali, N.N. (2018). The Influence Factors Towards Mobile Advertising Message Content on Consumer Purchase Intention. *Global Business Review*, 19: 1187–1206.
- Hoekstra, J.C., Leeftang, P.S.H. (2020). Marketing in the era of COVID-19. *Italian Journal of Marketing*, 249–260 <https://doi.org/10.1007/s43039-020-00016-3>
- Hum, M., Jordaan, Y. (2018). Factors that Predict Attitudinal Grouping towards SMS Advertising. *International Journal of Interactive Mobile Technologies*, 12: 97-111. doi.org/10.3991/ijim.v12i5.8985
- Huq, S.M., Alam, S.S.M., Nekmahmud. Md., Aktar S.M., Alam, S.S.M. (2015). Customer's Attitude Towards Mobile Advertising in Bangladesh. *International Journal of Business and Economics Research*, 4: 281-292.
- Hyland-Wood, B., Gardner, J., Leask, J., Ecker, U.K.H. (2021). Toward effective government communication strategies in the era of COVID-19. *Humanities and Social Sciences Communications*, 8(30). <https://doi.org/10.1057/s41599-020-00701-w>
- Hyland-Wood, B., Gardner, J., Leask, J., Ullrich, K.H. (2021). Toward effective government communication strategies in the era of COVID-19. *Humanity Social Science Communication*, 8(30). <https://doi.org/10.1057/s41599-020-00701-w>
- Jang, H., Seok, J., Kim, J. (2024) Crisis to Opportunity: The Role of Consumer Awareness in Mergers and Acquisitions (M&As) during the COVID-19 Pandemic. *Asia Marketing Journal*, 26(1): <https://doi.org/10.53728/2765-6500.1624>
- Kansiime, M.K., Tambo, J.A., Mugambi, I., Bundi, M., Kara, A., Owuor, C. (2021). COVID - 19 implications on household income and food security in Kenya and Uganda: Findings from a rapid assessment. *World Development*, 137, 105199. [10.1016/j.worlddev.2020.105199](https://doi.org/10.1016/j.worlddev.2020.105199)
- Kavassalis, P., Spyropoulou N.D.D., Mitrokostas, E., Gikas, G., Hatzistamatiou, A. (2003). Mobile Permission Marketing: Framing the Market Inquiry. *International Journal of Electronic Commerce*, 8: 55-79.
- Keshtgary, M., Khajehpour, S. (2011). Exploring and Analysis of Factors Affecting Mobile Advertising Adoption- an Empirical Investigation Among Iranian Users. *Canadian Journal on Computing in Mathematics, Natural Sciences, Engineering and Medicine*, 2: 144-151.
- Kim, K.Y., Lee, B.G. (2015). Marketing insights for mobile advertising and consumer segmentation in the cloud era: A Q-R hybrid methodology and practices. *Technological Forecasting and Social Change*, 91: 78-92.
- Komulainen, R., Lappeman, J.R., Islam, A.K.M.N. (2019). Determining banner advertisement effectiveness in mobile games: A study from South Africa. *The Retail and Marketing Review*, 15: 57-71.
- Koo, W., Knight, D.K., Yang, K., Xiang, Z. (2012). Generation Y consumers' value perceptions toward apparel mobile advertising: Functions of modality and culture. *International Journal of Marketing Studies* 4(2): 56-66.
- KPMG, 2012. *Consumers and Convergence Ireland 2012*, s.l.: s.n.
- Krafft, M., Arden, C.M., Verhoef, P.C. (2017). Permission Marketing and Privacy Concerns — Why Do Customers (Not) Grant Permissions? *Journal of Interactive Marketing* 39: 39-54. <https://doi.org/10.1016/j.intmar.2017.03.001>

Kwasawneh, M., Shuhaiber, A. (2013). A comprehensive model of factors influencing attitude towards and acceptance of SMS advertising: An empirical investigation in Jordan. *International Journal of Sales & Marketing Management Research and Development*, 31: 1-22.

Kwek, C.L., Piew, T.H., Lau, T. (2010). The Determinants of Consumers' Attitude Towards Advertising. *CANADIAN SOCIAL SCIENCE* 6: 114-126.

Lim, K.B., Yeo, S.F., Lee, C.L. (2019). Mobile Advertising: An Insight of Consumers' Attitude. Available online <https://www.researchgate.net/publication/335174358> Accessed 05/02/2020

Lin, C., Shun-Hsyung, C. (2023). Advanced Mobile Communication Techniques in the Fight against the COVID-19 Pandemic Era and Beyond: An Overview of 5G/B5G/6G. *Sensors*, 23(18): 7817. <https://doi.org/10.3390/s23187817>

Madakam, S., Tripathi, S. (2021). Social Media/Networking: Applications, Technologies, Theories, *Journal of Information Systems and Technology Management – Jistem USP*, 18, e202118007, DOI: 10.4301/S1807-1775202118007

Masocha, R. (2018). Contrasting Contemporary Advertising Media Strategies of Small Retail Firms. *Journal of Economics and Behavioral Studies*, 10: 162-170. [https://doi.org/10.22610/jeb.s.v10i6\(J\).2606](https://doi.org/10.22610/jeb.s.v10i6(J).2606)

Matiza, T. (2022). Post-COVID-19 crisis travel behaviour: Towards mitigating the effects of perceived risk. *Journal of Tourism Futures*, 8(1), : 99-108. doi:<https://doi.org/10.1108/JTF-04-2020-0063>

Mbawuni, J., Nimako, G.S. (2018). Factors Affecting Consumer Attitude towards Financial Adverts in Ghana's Banking Industry. *International Journal of Economics and Finance*, 10: 191-203.

Mbunge, E., Fashoto, S., Akinuwesi, B., Gurajena, C., Metfula, A. (2020). Challenges of Social Distancing and Self-Isolation during COVID-19 Pandemic in Africa: A Critical Review. *SSRN Electronic Journal*, 10.2139/ssrn.3740202

McCreesh, N., Dlamini, V., Edwards, A. (2021). Impact of the Covid-19 epidemic and related social distancing regulations on social contact and SARS-CoV-2 transmission potential in rural South Africa: analysis of repeated cross-sectional surveys. *BMC Infect Dis*, 21, 928 <https://doi.org/10.1186/s12879-021-06604-8>

Mehta, R., Udit, K. (2020). Impact of Personalized Social Media Advertisements on Consumer Purchase Intention. *Annals of Dunarea de Jos University of Galati. Fascicle I. Economics and Applied Informatics*, 26. DO - 10.35219/eai15840409101

Micucci, D., Mobilio, M., Napoletano, P. (2017). UniMiB SHAR: A Dataset for Human Activity Recognition Using Acceleration Data from Smartphones. *Applied Science*, 7: 1-19.

Muzaffar, F., Kamran, S. (2011). SMS advertising: youth attitude towards perceived informativeness, irritation and credibility. *Interdisciplinary Journal of Contemporary Research in Business*, 3(1): 230-245.

Nandagopal, R., Ha, H., Balamurugan, R.N., Sathish, M., Sathyanarayanan, R.S., Jublee, D. (2012). Consumer Attitude towards Mobile Advertising and its impacts on consumer behavioural Intention: A case study in Coimbatore City, India. Available: <https://www.g-casa.com/conferences/singapore12/papers/Ha-1.pdf> (accessed on 13/02/2019).

Nwagbara, U.I., Chinonso, O.E., Chireshe, R., Obasanjo, A.B., Saeed, B.Q., Khuzwayo, N., Hlongwana, K.W. (2021). Knowledge, attitude, perception, and preventative practices towards COVID-19 in sub-Saharan Africa: A scoping review. *PLOS ONE*, 16(6): e0253833.

Osinga, E.C., Zevenbergen, M., van Zuijlen, M.W.G. (2019). Do mobile banner ads increase sales? *International Journal of Research in Marketing*, 36: 439-453.

Pakravan - Charvadeh, M.R., Mohammadi - Nasrabadi, F., Gholamrezai, S., Vatanparast, H., Flora, C., Nabavi - Pelesaraei, A. (2021). The short - term effects of COVID - 19 outbreak on dietary diversity and food security status of Iranian households (A case study in Tehran province). *Journal of Cleaner Production*, 281, 124537. [10.1016/j.jclepro.2020.124537](https://doi.org/10.1016/j.jclepro.2020.124537)

Palau-Saumell, R., Matute, J., Derqui, B., Meyer, J.H. (2021). The impact of the perceived risk of COVID-19 on consumers' attitude and behavior toward locally produced food. *British Food Journal*, 123(13), : 281-301. <https://doi.org/10.1108/BJFJ-04-2021-0380>

Prentice, C., Nguyen, M., Nandy, P., Winardi, M.A., Chen, Y., Le Monkhouse, L., Sergio, D., Stantic, B. (2021). Relevant, or irrelevant, external factors in panic buying. *Journal of Retailing and Consumer Services*, 61, 102587. [10.1016/j.jretconser.2021.102587](https://doi.org/10.1016/j.jretconser.2021.102587)

Rauf, D. (2024). What Are the Symptoms of the New COVID-19 FLiRT Variant? [Online] Available: <https://www.everydayhealth.com/coronavirus/what-are-the-symptoms-of-the-new-covid-19-variant/> Accessed 23/05/2024.

Rutledge P.E. (2020). Trump ,COVID-19, and the War on Expertise. *American Review of Public Administration*, (50)6-7, 505–511.

Sabir, L.B, Kirmani, M.D. (2020). Scale development for M-commerce acceptance vis-à-vis young, educated, non-metropolitan small town consumers in India. *Colombo Business Journal*, 11: 105-131.

Salo, J. 2012. The role of mobile technology in a buyer - supplier relationship: a case study from the steel industry. *Journal of Business & Industrial Marketing*, 27: 554-563. <https://doi.org/10.1108/08858621211257329>

Sandal, J. (2017). How innovation maintains and develops democracy. *Economic Annals-XXI*: 165(5-6), : 23-26. DOI: <https://doi.org/10.21003/ea.V165-05>

Scharl, A., Dickinger, A., Murphy, J. (2005). Diffusion and Success Factors of Mobile Marketing. *Electronic Commerce Research and Applications*, 4(2): 159-173, DOI: [10.1016/j.elerap.2004.10.006](https://doi.org/10.1016/j.elerap.2004.10.006)

Sewpaul, R., Mabaso, M., Cloete, A., Dukhi, N., Naidoo, I., Davids, A.S., Reddy, S.P. (2023). Social distancing behaviour: avoidance of physical contact and related determinants among South Africans: twelve days into the COVID-19 lockdown. *Psychology, Health & Medicine*, 28(1), 260–278. <https://doi.org/10.1080/13548506.2022.2075020>

Stewart, D.W., Pavlou, P.A. (2002). From consumer response to active consumer: Measuring the effectiveness of interactive media. *Journal of the Academy Marketing Science*, 30: 376–396 <https://doi.org/10.1177/009207002236912>

Tsang, M.M., Ho, S., Liang, T. (2004). Consumer Attitude Toward Mobile Advertising: An Empirical Study. *International Journal of Electronic Commerce*, 8: 65-78, DOI: [10.1080/10864415.2004.11044301](https://doi.org/10.1080/10864415.2004.11044301)

Uwalaka, T. (2023). Mobile Internet and Contentious Politics in Nigeria: Using the Organisational Tools of Mobile Social Networking Applications to Sustain Protest Movements. *Journalism and Media*, 4(1): 396-412. <https://doi.org/10.3390/journalmedia4010026>

Vavrek, R., Adamišín, P., Kotulič, R. (2017). Multi-Criteria Evaluation of Municipalities in Slovakia - Case Study in Selected Districts. *Polish Journal of Management Studies*, 16(2), 290-301. doi: [10.17512/pjms.2017.16.2.25](https://doi.org/10.17512/pjms.2017.16.2.25)

Watson, C., McCarthy, J., Rowley, J. (2013). Consumer attitude towards mobile marketing in the smart phone era. *International Journal of Information Management*, 33: 840-849.

WHO (2023), “WHO Chief Declares End to COVID-19 as a Global Health Emergency | UN News” (2023), World Health Organization, (accessed July 1, 2023), <https://news.un.org/en/story/2023/05/1136367>.

Zabadi, A., Shura, M., Elsayed, E. (2012). Consumer Attitude toward SMS Advertising among Jordanian Users. *International Journal of Marketing Studies Archives*, 4: 77-94. <http://dx.doi.org/10.5539/ijms.v4n1p77>

Zhao, H.H., Li, N., Harris, T.B., Rosen, C.C., Zhang, X. (2021). Informational advantages in social networks: The core-periphery divide in peer performance ratings. *Journal of Applied Psychology*, 106(7): 1093–1102. <https://doi.org/10.1037/apl0000822>