

Behavioural Social Media Engagement Campaign and E-Marketing Effectiveness of Health Care Firms in Nigeria

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Abstract

The purpose of this study was to investigate the relationship between behavioural social media engagement campaign and e-marketing effectiveness of health care firms in Nigeria. The population of this study was thirty-seven (37) healthcare firms in Nigeria. Two hundred and twenty-two (173) employees of the health care firms were drawn to provide data for the study through semi-structure questionnaire that was designed in the Likert scale ranging from 1 to 5 (strongly disagree to strongly agree). The validity and reliability of the instrument was determined through Exploratory Factor Analysis (EFA), and Cronbach's Alpha Coefficients respectively. The hypotheses were tested using Pearson Product Moment Correlation (PPMC), with the aid of the Statistical Package for Social Sciences (SPSS) 22. Results of the analysis revealed that, behavioural social media engagement campaign has positive and significant relationships with click-through-rates, cost-per-click, and cost-per-impression which are the measures of e-marketing effectiveness. In view of the findings of the study, it is concluded that behavioural social media engagement relates positively and significantly with e-marketing effectiveness of health care firms in Nigeria. Hence, it is recommended that, health care firms in Nigeria should continuously improve on their behavioural social media campaigns to facilitate the achievement of e-marketing goals and objectives.

Keywords: *Behavioural social media engagement campaign, e-marketing effectiveness, click-through-rates, cost-per-click, and cost-per-impression*

Introduction

In the operations of business, social media have become recognized and used as very important channels through which prospects, consumers, customers and organizations interact. According to Miller et al. (2016), social media is today are not just platforms that enable people to communicate, they provide opportunities for individuals socialize. Social media are internet-based platforms that allow prospects, consumers and organizations to interrelate; generating and sharing information (Kaplan & Haenlein, 2010). Social media is a broad term that describes software tools that create user generated content that can be shared online. Social media enables marketing communications, which permit firms stay connected with their target market (Goh, 2013). This significant revolution in the way firms communicate customers and other stakeholders is triggered by the development of internet and Web 2.0 technologies. With the advent of Web 2.0, the behaviour of users has metamorphosed from consumers to participants. Consumers are now able to create, interact, collaborate and share while consuming content. The advent of the internet and the emergence of Web 2.0 technologies have made possible the quick transmission of ideas, expanded the reach and strength of computer-mediated interactions between sophisticated consumers, prospects, and organizations (Almeida & Monteiro, 2017). As the internet matures and moves from being largely a luxury to a basic necessity, faster access to richer information becomes more important to users. And the Online Brand Community (OBC) has been used to facilitate relationships between consumers, prospects and brands. Jay (2013) indicate that in this digital age, growth in technology, the intrinsic features of computers, mobile devices, social media and broadband technologies have ominously changed the business environment of most organizations.

Hence, there is an increase in competitive pressures, shift in organizations' roles, the emergence of new service delivery models for instance, digital healthcare, rapid innovations in medical and information technology, patient relationship management, and growing demands for greater transparency by consumers (Awa & Eze 2013). Bolos, Idemudia, Mai, Rasinghani and Smith (2016) argue that e-marketing strategies underscore the need for organizations to engage consumers in order to motivate sales growth. They further stated that, e-marketing effectiveness is measured in terms of click-through-rates, cost-per-click, and cost-per-impression. Tan, Kwek and Li (2013) citing The Interactive Advertising Bureau (IAB) defined e-marketing as all forms of online, wireless and interactive communication, including banners, sponsorships, e-mail, keyword searches, referrals, slotting fees, classified ads and interactive television commercials. Having a good consumer engagement strategy has become important for organizations; social media campaign is one of it, it is a real competitive advantage. Accordingly, businesses can build up dealings with their customers and put up new affairs with prospective consumers via social media. Kaplan and Haenlein (2010) maintained that social media is a group of Internet based applications that are built on the ideological and technological foundations of Web 2.0, and allow the creation and exchange of user

generated content. Social media has the potential to bring users and different brands together in general, they include sites like Facebook, an American conglomerate created in 2004 by Mark Zuckerberg, Twitter, an American micro blogging and social media site created by Jack Dorsey, Evan Williams, Biz Stone and Noah Glass in 2006.

Many companies today are using some or all of the new media to develop targeted campaigns that reach specific segments and engage their customers to a much greater extent than traditional media. According to Mangold and Faulds (2009), social media as a new hybrid element of promotion mix therefore marketing managers should comprise social media in the communication mix when developing and executing their integrated marketing communication strategies. Even as organizations realize the need to engage customers in as many touch points as possible, there is still a need to stay ahead of the rapidly shifting e-marketing and communication landscape by integrating social media into traditional strategies to reach out to all audiences. Successful business organizations use integrated marketing communication through electronic media to form and maintain relationship with consumers, ensuring that all brand messaging is consistent across both traditional and non-traditional marketing channels. This way, the firms can communicate and connect with their customers on a personal level (Peltier, Schibrowsky, & Schultz, 2003). Relatedly, social media platforms have become promising tool for brands and their marketing campaigns. Additionally, the spread of positive word-of-mouth via social platforms may influence potential consumers' decision making and possibly increase their purchase intentions (Baum, Spann, Füller & Thürid, 2019). Therefore, it is not surprising that healthcare firms are increasingly using some form of social media marketing to get consumers engaged in their brands. Health care firms in Nigeria were unable to meet consumers' health-related needs and wants and it reflects on the poor health indicators of the country (Lead Capital Ltd, 2008). Close observation reveals some critical health care delivery challenges in Nigeria include lack of control over infectious and/or pandemic diseases, lack of basic healthcare programs and facilities, and inability to adopt appropriate electronic health techniques (e-health) through broadband technologies to meet the needs and wants of the majority of the Nigerian people (Kolawole & Edward, 2014). The domestic implications of the COVID-19 pandemic have exposed the deep-rooted structural deficiencies and perennial weakness of healthcare firms in Nigeria. The Nigerian social media space is packed with reports of hundreds of mysterious deaths in different parts of Nigeria attributable to COVID-19 and cases of patients' protests in isolation centers due to lack of care, drugs, doctors and medication (Ani, 2020). The dynamic business environment in Nigeria is predisposed to the diffusion of social media (Kaplan & Haenlein, 2010), and social media engagement campaigns can facilitate comprehensive consumer engagement, ensuing strategic marketing advantages for firms (Siriwardane & Dissanayake, 2018). However, Nigerian healthcare firms still suffer some setbacks due to concerns about fake news on social media, internet fraud, breach of patients' privacy, quacks in the Nigerian healthcare system, unethical practices by healthcare providers and the sharing of links to bogus treatments on social media (African Centre for Global Health and Social, 2020).

Hence, application of social media engagement campaigns strategies in health care firms in Nigeria have adopted only "a trial and error approach" as there are no blueprints for firms to emulate as well as limiting factors such as high degree of poverty (not all patients in Nigeria can afford internet connection), underdeveloped marketing infrastructure, large rural population, high level of illiteracy, etc (Osuaquwu, 2006). Furthermore, most healthcare firms in Nigeria are largely focused on traditional marketing tools such as in-store marketing and mass media which are obsolete measures in this digital era. In view of this, the purpose of this study was to ascertain the relationship between behavioural social media engagement campaign and e-marketing effectiveness of health care firms in Nigeria. Behavioural social media engagement campaign is used as a one-dimensional variable while e-marketing effectiveness is multidimensional. Adopting the views of Bolos et al. (2016), e-marketing effectiveness is measured in terms of click-through-rates, cost-per-click, and cost-per-impression. All these variables are shown in a conceptual framework (Figure 1), and discussed in literature review. The study is underpinned by technology acceptance model (TAM).

Conceptual Framework

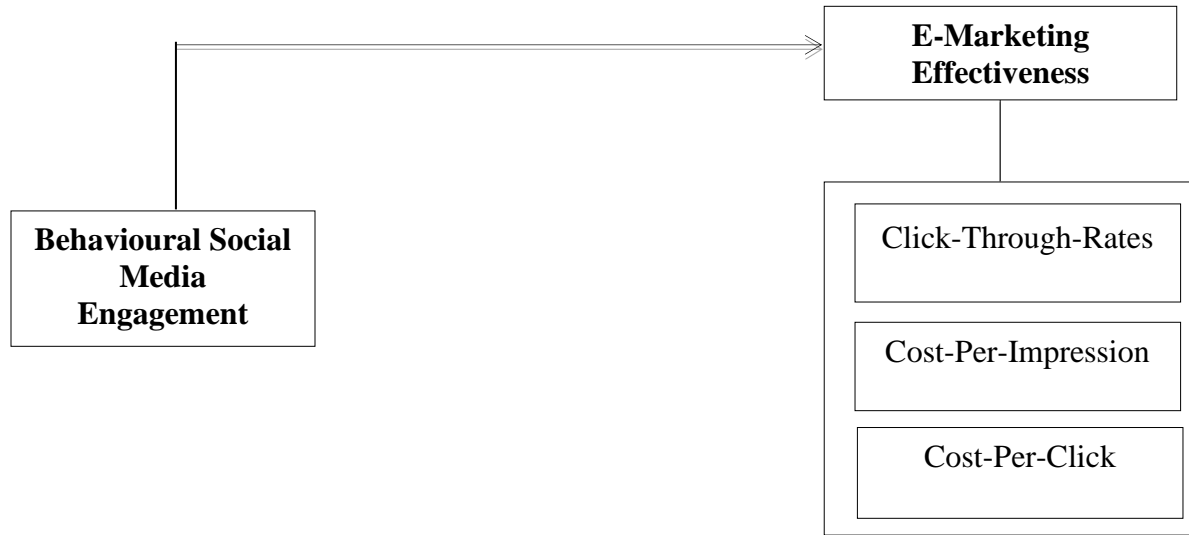


Figure 1: Conceptual framework of behavioural social media engagement campaign and e-marketing effectiveness of health care firms in Nigeria.

Theoretical Foundation

Technology Acceptance Model (TAM)

The technology acceptance model (TAM) is an information system theory that explains how users adopt technological innovations (Subhadin, 2017). Fred Davis in his doctorate proposal introduced the Technology Acceptance Model (TAM) in 1989 as a modification of Ice Ajzen and Mark Fishbein’s 1975 Theory of Reasonable Action (TRA). Davis’ key intent was to unfold the inclusive bases of technology acceptance and it led to illustrating users’ behaviour across end-users’ computing technologies and users’ comprehensive population. Technology acceptance model (TAM) was designed for showing users’ response to technological innovations (Wilson, 2016). Technology acceptance model (TAM) provided a theoretical back up on attitude toward subjective standard, social intention, genuine behaviour, external variables, perceived usefulness and perceived-ease-of-use. The Technology acceptance model (TAM) is an information systems theory that recognized Perceived Usefulness (PU), Perceived Ease of Use (PEU) and external influences as indicators to illustrate how end-users come to accept and use a technology (Wilson, 2016). Wilson (2016) argued that Perceived Usefulness (PU) and Perceived Ease of Use (PEU) are important indicators of the attitudes of users towards new technologies and their eventual adoption or rejection. Perceived Usefulness (PU) is the potential users’ personal believe that the use of a particular technology will improve his/her performance. It is the degree to which a person believes that using a particular technology would boost operations and achieve his/her objectives (Wilson, 2016). Davis argued that when a technology has high perceived usefulness (PU), it is assumed to have positive adoption of the technology.

Perceived usefulness is the degree to which a person believes that using a particular technology will intensify his/ her performance. In the technology acceptance model context, perceived usefulness is assumed to be a direct determinant of the behavioral intention to use (BI) a particular technology (Park, Rhoads, Hou & Lee, 2014). Preliminary studies maintained that perceived usefulness (PU) is positively related with continuance intention in e-text, instant messaging, mobile service provider, online travel services, blog learning, e-learning and knowledge creation (Abbas & Hamdy, 2015). When a technology is comparatively easy to use, people

will be curious about features and eventually use it continuously (Hamida, Razakb, Bakarc & Abdullahc, 2016). In view of the assumptions of this theory it is relevant to provide a basis for this study.

The Concept of Behavioural Social Media Engagement Campaign

Behavioural social media engagement is rooted in the verb “to engage” which refers to curiosity away from the meager fondness for something, and manifesting as a sturdy rationality of the relationship and deed towards it (Hollebeek, Glynn & Brodie, 2014). Behavioral social media engagement is defined in terms of consumers’ participation, effort, attention, persistence and positive conduct towards the brand related activity (Fredricks et al., 2016). Behavioural social media engagement is defined as an interactive expression towards a brand or firm that goes beyond business transactions on social media platforms (Verhoef, Reinartz & Krafft 2010). Wang, Fredricks, Ye, Hofkens and Linn (2016) defined behavioural social media engagement within the context of an individual’s personal interest in a phenomenon on social media which breeds curiosity, relationship, participation, persistence, and disdain. This study sees behavioural social media campaign engagement as focusing on explicit perspective, where social media campaigns spotlight on the behavioral manifestations of consumer engagement. Specified that consumers inquire about using their social media/online behaviours as a means of self-expression and personal branding (Labrecque, Markos & Milne, 2011), it becomes visible that involvement in such activations is endorsed as an appearance of customer behavioural engagement with the brand (Van Varik & Van Oostendorp, 2013). With the advent of Web 2.0 technologies and applications, predominantly the number of behavioral engagement options for customers has grown noticeably (Van Doorn et al., 2010). Behavioural social media engagement is an input pointer of its recognition and is used to evaluate the accomplishment of social media activities. Besides, it is a prerequisite for the affirmative impact of social media content on firms’ online marketing effectiveness. Vivek, Morgan and Beatty (2012) averred that consumer social media engagement manifests through consumers’ social media behavior in connection with a brand. Fredricks, Blumenfeld and Paris (2004) opined that behavioral social media engagement is the consumers’ behavior towards a brand and its market offering, which includes consumers’ resolve, effort, and their contribution towards the brand. Hollebeek (2011) confirms that brand identification substantiates consumer engagement behaviours. Behavioural engagement occurs when customers identify with a brand. It endorses their involvement in the brand’s marketing strategies and tactics which are reliant upon network magnitude, and interactivity (Bourdieu, 1986; González, Paoloni, Donolo & Rinaudo, 2015). Behavioural social media engagement manifests as joining brand-initiated conversations, posting brand-solicited messages, an indication of individuals exercising voice (Mancuso & Stuth, 2014) and signifying brand engagement behaviour. It entails consumers identifying with a brand so as to classify them by it through joining social media campaigns which becomes a way of endorsing the involvement. Behavioural social media engagement can endear positive or negative consequences; showing up as re-purchase decisions, brand switching, referrals, co-creation etc.

Consequently, brand-identified individuals ought to be more enthusiastic to join brand-initiated activations to reveal their links with same. Such reckoning unearths sustenance from Ahearne, Bhattacharya and Gruen (2005) that put forward engagement behaviours to exhibit consumers’ identification with a brand to the degree of aspiring to overtly connect with and sustain it. Most consumers are more active in interactive processes in the virtual environment through chat rooms, newsgroups, personal web pages, social networking sites. Behavioural engagement with social media campaigns manifests as joining brand-initiated conversations/posting brand-solicited messages, an indication of consumers’ exercising voice towards a brands. Behavioural engagement with social media campaigns emanates from a multi-disciplinary theoretical perspective which include; marketing (Lin, Ross & Liu, 2015), sociology (Bourdieu, 1986), psychology (Achterberg et al., 2003), and information systems. Social media campaigns involve encouraging consumers’ communications on company’s own website or through its social presence. Consumers’ behavioral engagement with social media activation campaigns seek to prompt brand conversations amid consumers, purchase and partnerships via social media that contributes to brand narratives and raise visibility as communications go viral (Van Noort, Antheunis & Van Reijmersdal, 2012).

The Concept of E-marketing Effectiveness

Marketing effectiveness is described marketing effectiveness as the extent to which marketing actions have helped the company to achieve its business goals (Ambler, Kokkinaki, Puntoni & Riley, 2001). Mavondo (2004) it is the ability of the organization to meet short-term goals that might positively impact financial performance such as increasing market share, increasing sales, improving gross margin, and successful new product introduction. Nwokah and Ahiauzu (2008) define it as the extent to which an organization acquires market share over competitors, advertising and promotional share of the market. According to Žostautienė

and Vaičiulėnaitė (2010), it is the process where value is created using organization's resources for marketing activities and creation of competitive advantage. E-marketing is a symbolic extensive assortment of service, product and brand marketing strategies which principally utilize internet as an indispensable promotional intermediate as well as mobile and traditional television TV and radio (Yasnin, Tasneem & Fatema 2015). E-marketing is accredited as not only a flourishing form of advertising, but also as one of the most exceedingly revealed form of performance-oriented advertising strategies for customers' acquisition, satisfaction, retention and loyalty (Guillory & Sundar, 2013). E-marketing is considered one of the most effective multi-channel marketing strategies sought after by organizations for the achievement of set goals and objectives. Amruta (2014) indicated that e-marketing is the art and science of selling products and/or services over digital networks, such as the Internet and cellular phone networks. Technological innovations relating to the constant developments of hardware, software, and big data assist electronic marketers in analyzing the effectiveness of specific promotional and organizational objectives by using tangible indicators in achieving successful consumer engagement. E-marketing is today seen by many practitioners as the new arena for market communication and on top of the list of users of the different mediums is Facebook, Blogs, Twitter, YouTube and LinkedIn. E-marketing effectiveness (EE) is achieved when marketers go online with the goal of optimizing their marketing expenses to achieve even better results for both the short- and long-term objectives. The measures of e-marketing effectiveness include; click-through-rates, cost-per-click, cost-per-impression (Bolos et al., 2016).

Measures of E-marketing Effectiveness

Adopting the views of Bolos et al. (2016), e-marketing effectiveness is measured in terms of click-through-rates, cost-per-click, and cost-per-impression. Click-through-rate is a metric that measures the number of clicks advertisers receive on their ads per number of impressions (percentage of people who view the firm's advert) (Lim, 2020). Each time someone clicks on your ad, you pay a small fee, ranging from a few Kobos to a few Nairas (Weedmark, 2019). Achieving a high click-through-rate means the firm is driving the highest possible number of people to its market offering(s). Click-through-rate is the percentage of impressions that resulted in a click. This number is the percentage of people who viewed a firm's advert (impressions) and then actually go on to click the ad (clicks). The idea of cost-per-click (CPC) advertising involves the cost advertisers will pay when their advert is clicked on. Cost-per-click (CPC) is closely tied to the idea of pay-per-click advertising, many people use pay per click (PPC) and cost-per-click (CPC) interchangeably. Cost-per-click (CPC) is a paid advertising term where an advertiser pays a cost to a publisher for every click on an advert. It is used to determine costs of showing users adverts on search engines, Google Display Network, and social media platforms and other publishers. Cost-per-click (CPC) is a digital marketing method used to measure the cost or cost-equivalent for each click on your advert in a cost-per-click (CPC) campaign. It's a metric that determines the success and return on investment of your paid search campaigns. Cost-per-impression, also referred to as cost-per-mille (CPM) is a term used in internet marketing to mean an advertising model where companies pay a specific amount of money each time an advert is displayed. Scheduling of adverts on a website has also recently become a popular topic. Cost-per-impression (CPM) is the price a marketer would pay to receive one thousand (1,000) campaign impressions (Bolos, et al. 2016). This represents a category of online advertising where the marketers who invest in it get remunerated anytime internet users click on their adverts and engage with them. Cost per impression (CPM) refers to the rate that an advertiser has settled to pay per 1000 views of a given advertisement. Web publishers seek the cost-per-impression (CPM) prices that maximize their expected revenues based on the uncertain arrival of advertisers through the ad network and the uncertain supply of visits from viewers.

Empirical Review of Related Studies

Scholars around the world have conducted empirical studies to investigate the concept of behavioural social media engagement campaigns and e-marketing effectiveness in various industries with different results. For instance, González et al. (2015) investigated "behavioral engagement and disaffection in school activities: exploring a model of motivational facilitators and performance outcomes". Participants were four hundred and forty six (446) students (51.3% girls) ranging in age from 12 to 16 years attending six Spanish compulsory secondary schools (from 7th to 10th grades). Structural equation models results confirmed that, control and value significantly predicted engagement, disaffection, and performance; engagement and disaffection predicted performance and partially mediated the effects from control and value on performance. Implications for psycho-educational theory and practice are discussed. Also, Al Mamun et al. (2016) studied "student behavioural engagement in self-paced online learning". The total number of participants in this study was thirty (30) first-year science students from an Australian university. The online modules were designed to engage students for about 50-60 minutes. Once students finished the activity, the researcher conducted a stimulated recall interview using the recorded student activity as the stimulus. The data derived from the recorded student activity, observational notes and interviews were

examined and coded to find the patterns and relationships across the data sets. The findings were further interpreted with the focus on the construct of student behavioural engagement. Student engagement was found to be high on the video activities and reading the feedback of their responses compared to the core simulation activities. Singh and Sharma (2019) investigated “consumers’ engagement with social media activation campaign: Construct conceptualization and scale development”. They conceptualized consumers’ engagement with social media activation campaigns, which are major tools in improving the interactions between brands and consumers and reported the advancement and validation of a 12-item scale for measuring the construct. The scale development process began with a pool of items which a panel of experts, some Instagram users examined the content validity via online surveys in subsequent studies. Exploratory and Confirmatory Factor Analyses (CFA) were used to evaluate the dimensionality of the constructs. And structural equation modeling was also used to test the validity. Findings revealed that consumers’ engagement with social media activation campaigns is second orders construct encompassing three first order dimensions cognitive, emotional, and behavioral engagement. Fjell (2010) studied Online advertising: pay-per-view versus pay-per-click with market power designed to analyze the choice of pay-per-view (PPV) and pay-per-click (PPC) under imperfect competition where a web publisher is a price setter in the market for advertising banners, the number of visit to the website is decreasing in advertising, and the click-through rate is constant. The main results for this study: The optimal amount of advertising under pure PPV or PPC pricing is decreasing in market power, and smaller than for a price-taking web publisher. If the web publisher sells both PPV and PPC advertising, then the ratio of the PPV to PPC prices should equal the click-through rate if the market power is the same in both markets. However, if the market power for PPV advertising exceeds that for PPC advertising, then the ratio of the PPV to PPC prices should also exceed the click-through rate. In view of the findings of previous studies, the researcher was speculating that behavioural social media engagement campaign will enhance e-marketing effectiveness of health care firms in Nigeria. Therefore, the following hypotheses were tested in the study.

- H_{a1}:** Behavioral social media engagement has a significant relationship with click-through-rates.
- H_{a2}:** Behavioral social media engagement has a significant relationship with cost-per-click.
- H_{a3}:** Behavioral social media engagement has a significant relationship with cost-per-impression.

Methodology

This study adopted the positivism paradigm, also referred to as the scientific view. The positivism paradigm, under objectivism epistemology is a methodological philosophy in quantitative research where natural scientific methods are applied to discover the study of social sciences phenomena (Crotty, 1998). This study is an explanatory study; hence, a correlation investigation was carried out without any form of manipulation in a non-contrived setting to ascertain the relationship between behavioural social media engagement campaigns and e-marketing effectiveness of healthcare firms in Nigeria. The population of this study was thirty-seven (37) healthcare firms in Nigeria outlined in Business List (2020). No sampling technique was used, that is, non-probability method was used in the study and the entire population as a census. However, two hundred and twenty-two (173) employees of the health care firms were drawn to provide data for the study through semi-structure questionnaire that was designed in the Likert scale ranging from 1 to 5 (strongly disagree to strongly agree). The construct validity of the questionnaire was determined through Exploratory Factor Analysis (EFA), and the internal reliability of the questionnaire was through Cronbach’s Alpha Coefficients using a threshold of 0.7 (Nunnally, 1978). The hypotheses were tested using Pearson Product Moment Correlation (PPMC), with the aid of the Statistical Package for Social Sciences (SPSS) 22. The tables below show the results of the validity and reliability analyses as well as the results of the test of hypotheses.

Table 1: Factor Analysis

S/N	Variables	Number of Items	FactorLoadings
1	Behavioural Social Media Engagement	3	0.773
2	Click-Through-Rates	3	0.683
3	Cost-Per-Click	3	0.720
4	Cost-Per-Impression	3	0.733

Source: SPSS Output from Survey Research

As shown from results of Factor Analysis in Table 1, all the variables have high factor loadings, indicating that the items and variables in the questionnaire measured what they were supposed to measure.

Table 2: Reliability Analysis

S/N	Variables	Number of Items	Cronbach's Alpha Coefficients
1	Behavioural Social Media Engagement	3	0.810
2	Click-Through-Rates	3	0.713
3	Cost-Per-Click	3	0.762
4	Cost-Per-Impression	3	0.774

Source: SPSS Output form Survey Research

The reliability results on Table 2 showed that variables in the study have high correlation coefficient, surpassing the threshold of 0.7 set by Nunally (1978). This means that if this study is carried out again in a similar condition the results may not vary significantly from the present result.

Test of Hypotheses

Three alternate hypotheses were tested using Pearson Product Moment Correlation to ascertain the relationship between behavioural social media engagement campaigns and e-marketing effectiveness of healthcare firms in Nigeria.

Table 3: Test of hypotheses one – relationship between behavioural social media engagement statement and click-through-rates statement

		Behavioural Social Media Engagement Statement	Click-Through-Rates Statement
Behavioural Social Media Engagement Statement	Pearson Correlation	1	.876**
	Sig. (2-tailed)		.000
	N	173	173
Click-Through-Rates Statement	Pearson Correlation	.876**	1
	Sig. (2-tailed)	.000	
	N	173	173

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

Source: SPSS output for test of hypothesis, 2021.

The Correlation Coefficient in Table 3 shows that there is a very strong and positive relationship between behavioural social media engagement and click-through-rates. More so, significance of the relationship is shown by the probability value which is 0.001 less than the threshold of 0.01 indicating that the relationship between behavioural social media engagement and click-through-rates is statistically significant. That is to say, there is a very strong, positive and statistically significant relationship between behavioural social media engagement and click-through-rates ($r = 0.876$, $N = 173$, $p = 0.001 < 0.01$). In view of this result, we accepted the alternate hypothesis which states that there is a significant relationship between behavioural social media engagement and click-through-rates of health care firms in Nigeria.

Table 4: Test of hypotheses two – relationship between behavioural social media engagement statement and cost-per-click statement

		Behavioural Social Media Engagement Statement	Cost-Per-Click Statement
Behavioural Social Media Engagement Statement	Pearson Correlation	1	.771**
	Sig. (2-tailed)		.000
	N	173	173
Cost-Per-Click Statement	Pearson Correlation	.771**	1
	Sig. (2-tailed)	.000	
	N	173	173

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

Source: SPSS output for test of hypothesis, 2021.

The Correlation Coefficient in Table 4 shows that there is a strong and positive relationship between behavioural social media engagement and cost-per-click. More so, significance of the relationship is shown by the probability value which is 0.001 less than the threshold of 0.01 indicating that the relationship between behavioural social media engagement and cost-per-click is statistically significant. That is to say, there is a strong, positive and statistically significant relationship between behavioural social media engagement and cost-per-click ($r = 0.771$, $N = 173$, $p = 0.001 < 0.01$). In view of this result, we accepted the alternate hypothesis which states that there is a significant relationship between behavioural social media engagement and cost-per-click of health care firms in Nigeria.

Table 5: Test of hypotheses three – relationship between behavioural social media engagement statement and cost-per-impression statement

		Behavioural Social Media Engagement Statement	Cost-Per-Impression Statement
Behavioural Social Media Engagement Statement	Pearson Correlation	1	.826**
	Sig. (2-tailed)		.000
	N	173	173
Cost-Per-Impression Statement	Pearson Correlation	.826**	1
	Sig. (2-tailed)	.000	
	N	173	173

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

Source: SPSS output for test of hypothesis, 2021.

The Correlation Coefficient in Table 5 shows that there is a very strong and positive relationship between behavioural social media engagement and cost-per-impression. More so, significance of the relationship is shown by the probability value which is 0.001 less than the threshold of 0.01 indicating that the relationship between behavioural social media engagement and cost-per-impression is statistically significant. That is to say, there is a very strong, positive and statistically significant relationship between behavioural social media engagement and cost-per-impression ($r = 0.826$, $N = 173$, $p = 0.001 < 0.01$). In view of this result, we accepted the alternate hypothesis which states that there is no significant relationship between behavioural social media engagement and cost-per-impression of health care firms in Nigeria; and accepted the alternate hypothesis which states that there is a significant relationship between behavioural social media engagement and cost-per-impression.

Discussion of Findings

Relationship between Behavioural Social Media Engagement and E-marketing Effectiveness

Outcome of the analysis to ascertain how behavioural social media engagement relates with click-through-rates indicated that there is a very strong and positive relationship between behavioural social media engagement and click-through-rates. This is based on the Correlation Coefficient and probability value from test of hypothesis one. More so, results of the analysis to ascertain how behavioural social media engagement relates with cost-per-click indicated that there is a strong and positive relationship between behavioural social media engagement and cost-per-click evident in the Correlation Coefficient and probability value from test of hypothesis two. Similarly, results of the analysis to ascertain how behavioural social media engagement relates with cost-per-impression revealed that there is a strong and positive relationship between behavioural social media engagement and cost-per-impression. In view of this result, the three alternate hypotheses were accepted. The findings of this research are in agreement with the findings of González et al. (2015) that investigated the relationship between behavioral engagement and disaffection among Spanish students which showed that, control and value significantly predicted engagement, disaffection, and performance; engagement and disaffection predicted performance and partially mediated the effects from control and value on performance. Also, findings of this research align with the results of Al Mamun et al. (2016) who studied the influence of student behavioural engagement in self-paced online learning among students an Australian university. Student engagement was found to be high on the video activities and reading the feedback of their responses compared to the core simulation activities. The findings of this research are also consistent with the findings of Singh and Sharma (2019) who investigated “consumers’ engagement with social media activation campaign revealed that consumers' engagement with social media activation campaigns is second orders construct encompassing three first order dimensions cognitive, emotional, and behavioral engagement. Therefore, the deployments of behavioral social media engagement will enhance-marketing effectiveness of health care firms in Nigeria.

Conclusion

In view of the findings of the study, it is concluded that behavioural social media engagement relates positively and significantly with e-marketing effectiveness of health care firms in Nigeria. In other words, improving behavioural social media engagement campaigns will make consumers to view advertising posts often, and increase revenue of the firms as consumers click on advertisement.

Recommendations

Based on the findings of the study, it is recommended that, health care firms in Nigeria should continuously improve on their behavioural social media campaigns to facilitate the achievement of e-marketing goals and objectives.

REFERENCES

- Abbas, H. A., Hamdy, H. I. (2015). Determinants of continuance intention factor in Kuwait communication market: Case study of Zain-Kuwait. *Computers in Human Behavior*, 49(10), 648-657.
- Achterberg, W., Pot, A. M., Kerkstra, A., Ooms, M., Muller, M., & Ribbe, M. (2003). The effect of depression on social engagement in newly admitted Dutch nursing home residents. *The Gerontologist*, 43(2), 213-218.
- African Centre for Global Health and Social (2020). *Health professionals attend Nigeria's first social media & healthcare master class*. Retrieved 12th July, 2020, from <https://africa-health.com/news/health-professionals-attend-nigerias-first-social-media-healthcare-masterclass/>

- Ahearne, M., Bhattacharya, C. B., & Gruen T. (2005). Antecedents and consequences of customer-company identification: Expanding the role of relationship marketing. *Journal of Applied Psychology, 90*, 574–585.
- Al Mamun, M.A., Lawrie, G., & Wright, T. (2016). *Student behavioural engagement in self-paced online learning*. Retrieved 12th July, 2020, from https://www.016conference.ascilite.org/wpcontent/uploads/ascilite2016_mamun_concise.pdf
- Almeida, F., & Monteiro, J. (2017). The role of responsive design in web development. *Webology, 14*(2), 48-65.
- Ambler, T., Kokkinaki, F., Puntoni, S. & Riley, D. (2001). *Assessing market performance: The current state of metrics*. London: London Business School.
- Amruta, V. P.(2014). *Study of the effectiveness of online marketing on integrated marketing communication*. Retrieved 12th July, 2020, from <https://www.e-ir.info/2020/06/22/.Study-of-the-effectiveness-of-online-marketing> Accessed
- Ani, M. (2020). *Corona virus patients protest poor state of isolation centres in Gombe*. Retrieved 20th July, 2020 from <https://businessdayng/coronavirus/articles/corona>
- Awa, H.O. & Eze, S.O. (2013). The marketing challenges of healthcare entrepreneurship: An empirical investigation in Nigeria. *British Journal of Marketing Studies, 1*(2)1-16.
- Baum, D., Spann, M., Füller, J., & Thürridl, C. (2019). The impact of social media campaigns on the success of new product introductions. *Journal of Retailing and Consumer Services, 50*, 289-297.
- Bolos, C., Idemudia, E. C., Mai, P., Rasinghani, M. & Smith, S. (2016). Conceptual models on the effectiveness of e-marketing strategies in engaging consumers. *Journal of International Technology and Information Management, 25*(4), 38-50.
- Bourdieu, P. (1986). *The forms of capital*. New York: Greenwood Press.
- Business List (2020). *Healthcare*. Retrieved 12th July, 2020, from <https://www.businesslist.com.ng/companies/healthcare>
- Crotty, M. (1998). *The Foundations of Social Research: Meaning and Perspective in the Research Process*. St Leonards: Allen & Unwin
- Fjell, K. (2010). Online advertising: pay-per-view versus pay-per-click with market power. *Journal of Revenue and Pricing Management, 9*(3), 198-203.
- Fredricks, J. A., Wang, M.-T., Schall Linn, J., Hofkens, T. L., Sung, H., Parr, A., & Allerton, J. (2016). Using qualitative methods to develop a survey measure of math and science engagement. *Learning and Instruction, 43*(2), 5-15.
- Fredricks, J., Blumenfeld, P., & Paris, A. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research, 74*(1), 59-109.
- Goh, K.Y., Heng, C.S., & Lin, Z. (2013). Social media brand community and consumer behavior: Quantifying the relative impact of user- and marketer-generated content. *Information Systems Research, 24*(1), 88–107.

- González, A., Paoloni, P., Donolo, D. & Rinaudo, C. (2015). Behavioral engagement and disaffection in school activities: Exploring a model of motivational facilitators and performance outcomes. *Anales de Psicología*, 31, 869-878.
- Guillory, J. E., & Sundar, S. S. (2013). How does web site interactivity affect our perceptions of an organization? *Journal of Public Relations Research*, 26, 44-61.
- Hamida, A., Razakb, F.Z.A. Bakarc, A. A., & Abdullahc, W.S.W. (2016). The effects of perceived usefulness and perceived ease of use on continuance intention to use e-government. *Procedia Economics and Finance*, 35, 644 – 649.
- Hollebeek, L. (2011). Demystifying customer brand engagement: Exploring the loyalty nexus. *Journal of Marketing Management*, 27(7/8), 785–807.
- Hollebeek, L. D., Glynn, M. S., & Brodie, R. J. (2014). Consumer brand engagement in social media: Conceptualization, scale development and validation. *Journal of Interactive Marketing*, 28(2), 149-165.
- Jay,S.R. (2013). Mobile marketing communications in the retail environment: a comparison of QR code users and non-users. *Mobile Marketing Association*, 8 (2), 19-29.
- Kaplan, A.M. & Michael, H. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 53 (1), 59-68.
- Kolawole, J. A. & Edward, O. O. (2014). Issues on e-health adoption in Nigeria. *International Journal of Modern Education and Computer Science*, 9, 36-46.
- Labrecque, L. I., Markos, E. & Milne, G. R. (2011). Online personal branding: processes, challenges, and implications. *Journal of Interactive Marketing*, 25(1), 37–50.
- Lead Capital Limited (2008). Nigeria's Pharmaceutical and health care sector: A critical analysis. In R. Lynch (Ed), *Corporate strategy*. London: Pitman Publishing.
- Lim, K. (2020). *Click-through-rate (CTR): Understanding click-through rate for PPC*. Retrieved 20th July, 2020 from <https://www.wordstream.com/click-through-rate>
- Lin, S.,Ross, W.J. & Liu, H.(2015). *Does the social value of a brand matter? An empirical investigation of the impact of brand social engagement on firm's financial performance*. Retrieved 20th July, 2020 from <http://ssrn.com/abstract=2670894>
- Mackey, M. (2019). *What is click-through rate & why CTR is important*. Retrieved 20th July, 2020 from <https://www.searchenginejournal.com/ppc-guide/click-through-rate-ctr/>
- Mangold, W.G. & Faulds, D.J., (2009). Social media: The new hybrid element of the promotion mix. *Business Horizons*, 52 (4), 357–365.
- Mancuso, J. & Stuth,K. (2014). *Storytelling and marketing: The perfect pairing*. Retrieved 20th July, 2020 from <https://www.ama.org/publications/MarketingInsights/Pages/storytelling-and-marketing-theperfect-pairing.aspx>
- Mavondo, F. T. (2004). Learning orientation and market orientation. *European Journal of Marketing*, 39(11), 1235–1263.

- Miller, D., Costa, E., Haynes, N., Nicolescu, R., Sinanan, J., Spyer, J., Venkatraman, S. & Wang, X. (2016). *How the world changed social media*. London: University College London Press.
- Nunnally, J. C. (1978). *Psychometric theory* (2nd edn.). New York: McGraw-Hill.
- Nwokah, N. G. & Ahiauzu, A. I. (2009). Emotional intelligence and marketing effectiveness. *Marketing Intelligence & Planning*, 7(27), 864–881.
- Osuagwu, L. (2006). Market orientation in Nigerian companies. *Marketing Intelligence and Planning*, 24(6), 608-631.
- Park, N., Rhoads, M., Hou, J. & Lee, K. M. (2014). Understanding the acceptance of teleconferencing systems among employees: An extension of the technology acceptance model. *Computers in Human Behaviour*, 39(0), 118-127.
- Peltier, J. E., Schibrowsky, J. A., & Schultz, D. E. (2003). Interactive integrated marketing communication: Combining the power of IMC, the new media and database marketing. *International Journal of Advertising*, 22, 93-115.
- Poorrezaei, M. (2016). *Customer engagement: Conceptualization, measurement and validation*. Retrieved 20th July, 2020 from www.usir.salford.ac.uk
- Singh, S., & Sharma, G. (2011). Consumers' engagement with social media activation campaign: Construct conceptualization and scale development. Retrieved 20th July, 2020 from <http://ssrn.com/abstract=1831120>
- Siriwardana, D. & Dissanayake, M.R. (2018). Social customer relationship management (SCRM) in contemporary business era. *International Journal Business and Management Invention*, 7(9), 59-64.
- Subhadin, R. (2017). App adoption and switching behavior: applying the extended tam in smartphone app usage. *Journal of Information Systems and Technology Management*, 14 (2), 239-261.
- Tan, W. J., Kwek, C. L., & Li, Z. (2013). The antecedents of effectiveness interactive advertising in the social media. *International Business Research*, 6(3), 88-99.
- Van Doorn, J., Lemon, K. N., Mittal, V., Nass, S., Pick, D., Pirner, P., & Verhoef, P. C. (2010). Customer engagement behavior: Theoretical foundations and research directions. *Journal of Service Research*, 13(3), 253-266.
- Van Noort, G., Antheunis, M. L. & Van Reijmersdal, E. A. (2012). Social connections and the persuasiveness of viral campaigns in social network sites: Persuasive intent as the underlying mechanism. *Journal of Marketing Communications*, 18(1), 39–53.
- Van Varik, F. J. M., & Van Oostendorp, H. (2013). Enhancing online community activity: development and validation of the CA framework. *Journal of Computer-Mediated Communication*, 18(4), 454–475.
- Verhoef, P. C., Reinartz, W. J. & Krafft, M. (2010). Customer engagement as a new perspective in customer management. *Journal of Service Research*, 13(3), 247-252.

- Vivek, S. D., Morgan, R. M., & Beatty, S. E. (2012). Customer engagement: Exploring customer relationships beyond purchase. *The Journal of Marketing Theory and Practice, 20*(2), 122-146.
- Wang, M.-T., Fredricks, J. A., Ye, F., Hofkens, T. L., & Linn, J. S. (2016). The Math and Science Engagement Scales: Scale development, validation, and psychometric properties. *Learning and Instruction, 43*, 16-26.
- Weedmark, D. (2019). *How do you calculate a CPM?* Retrieved 20th July, 2020 from <https://smallbusiness.chron.com/calculate-cpm-787.html>
- Wilson, O. (2016). Basics of mobile marketing strategy. *United States of America, Business Science Reference, an imprint of IGI Global*.
- Yasnin, A., Tasneem, S. & Fatema, K. (2015). Effectiveness of digital marketing in the challenging age: An empirical study. *International Journal of Management Science and Business Administration, 1*(5), 69-80.
- Žostautienė, D. & Vaičiulėnaitė, L. (2010). Coherence model between marketing culture and marketing effectiveness. *Ekonomika ir vadyba, 15*, 874–879.