



# Viral Marketing and Brand Performance of Pharmaceutical Companies in South-South, Nigeria: The Moderating Role of Technology

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**Abstract:** This study examined viral marketing and brand performance of pharmaceutical companies in South-South, Nigeria. Data for the study was collected through questionnaire from the sixty (60) respondents, however, fifty four (54) of the distributed copies of questionnaire were valid and used for the analysis. The hypothesis was tested Partial Correlation coefficient. The finding revealed that, there is a significant relationship between viral marketing and brand performance and technological factor significantly influence the relationship viral marketing and brand performance. Based on that, the study recommends that; Companies should include Viral Marketing Techniques in their marketing plan so as to make improvements in their brand performance. Before making a campaign go viral, companies should ensure contents are well structured so as to avoid sending the wrong signals. This is vital because the viral nature of the internet today might make keeping the circulation of a campaign within the targeted audience difficult.

**Keywords:** Viral Marketing Technique, Brand Performance

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## INTRODUCTION

The last years witnessed regular marketing mechanisms and communication deemed less effective (Oosterwijk & Loeffen 2015). Firms questioned the effectiveness of these strategies as they seem not to be satisfied with their marketing results when compared against the expenses made. With less people paying attention and trusting on traditional advertising, marketers are now on the go for more innovative ways to reach their customers. Developments of communication and information technologies has helped in encouraging the upsurge of recent communication routes that have further improved available ways for businesses in strengthening associations with customers. Technological advancement brought about other forms of marketing, especially mass marketing. First of all, radios were used to reach thousands of listeners, and then the television that served a larger audience. Today, the internet has taken over as the new generation marketing methods (Wilson, 2012). The internet is used in building the reputation of brands all over the world today. “ Its emergence, proliferation, and ubiquity has not only transformed businesses, but also altered the association between businesses and customers” (Singha, et al, 2008). I.e. the way in which companies communicate their

brands to customers in the past is not the same with what is obtainable today. Technological advancement has helped in moving company and consumer associations to a level of interaction where technology helps build a brand by the creation and sustenance of long-term associations with the customers. De Bruyn and Lilien (2008) added that “with the growth and evolution of the internet, electronic peer-to-peer referrals have become an important phenomenon, and marketers have tried to exploit their potential through viral marketing campaigns”. Many Nigerians for instance, now depend on the internet for their news, booking of travel reservations, among others. For online entertainment, news and information, consumers tend to trust and rely on recommendations from relatives and close associates. more than a billion consumers who are connected and sharing messages by just clicking on their laptop or mobile According to Olanye and Onobrakpeya (2017), the recent trend toward viral marketing technique has been triggered by the upsurge of trending social network platforms like Facebook, that have recorded devices. Also, the increasing development of mobile technology has given access to social networking sites everywhere by devices that are handheld. This makes it possible for marketers to make use of viral marketing strategies in achieving massive results for minimal cost and a short period of time. This has radically improved the manner information is developed and sent out to end customers.

Because of the positives attached to viral marketing, companies such as Unilever, MTN, Fidson Healthcare, Coca Cola, etc. have come to embrace and make viral marketing one of their major tools. Bampo et al (2008), explained that “those companies value viral marketing technique as a strategy to gain from, and the added trust sources they get and at the same time remaining largely in charge of the message content”. One example of a remarkable viral campaign was the Arthemed End Malaria For Good campaign. In 2019, the Fidson Pharmaceutical Company ran a social media campaign that sensitized the public on the dangers of malaria and its preventive measures. In trying to keep it exciting so as to drive home their message, the company created a participatory contest. Participating required an individual to make a video that is not more than 30-seconds with the words “END MALARIA FOR GOOD” in his native language. This video will be uploaded on his social media page using the hashtags #Arthemed #End Malaria For Good. The person is further asked to ensure he follows their social media pages (Facebook/Twitter/Instagram). The last thing the individual is compelled to do is to tag them and at least five of the participant’s friends. At the end of the day, the top 15 most liked videos wins #5,000 shopping voucher. This got the campaign exposed to many people. Here, viral marketing strategy played a major role as consumer-to-consumer (or peer-to-peer) communications were recorded as against to marketer-to-consumer communications to share information concerning a brand.

Yasin and Ozen (2016) explained that despite the increasing level of health-related information available on the internet, it still appears that many health care consumers need assistance in understanding product information as consumers are seen to be confused and sometimes afraid when presented with drugs that are unpopular and yet to be experienced. Delorme (2017) claimed that though TV, radio, newspaper, product leaflets, and in store adverts help

consumers in gaining product information, it has limited impact on pharmaceutical brand choices and level of exposure. That notwithstanding, studies (Lawrence, 2014; Olanye & Onobrakpeya, 2017) have shown how powerful viral marketing strategy is in improving brand performance if properly applied. This however, has not ruled out the evidence of poorly performed pharmaceutical companies despite having some of these firms engaging the strategy. This could be a failure that is hinged on treading on the wrong part in creating and disseminating viral campaigns into online networks. The prevalent low performance may also not be unconnected with firm's inability to inculcate viral marketing strategy in their marketing plan. These assumptions are based on the conviction that viral marketing help firms stand out even in fierce competition as it is effective in creating awareness, building interest and triggering the adoption of products as pointed out by Granata & Scoozzeze (2017). Viral marketing help customers get information about a brand even from his own family and close associates. This builds trust and subsequently adoption of products. Based on the foregoing, the study sought to find out the moderating influence of technology on the association between viral marketing techniques and brand performance of pharmaceutical companies in South-South, Nigeria.

## **Theoretical Foundation**

### **Viral Loop Marketing Theory**

This theory was developed by Adam Penenberg in 2008, it describes the way cultural products or networks are led to popularity. According to Lane (2017), viral loop marketing theory is a theory that explains how users of a product are its primary marketers. It reveals how a brand's loyal customers spread its messages via continued usage of the brand and incite close associates to also use it. Viral loops are included in companies marketing strategies when their desire is to get their marketing messages to consumers with minimal cost. In most cases, viral loops are considered by small to medium sized businesses because of their significantly smaller budgets compared to bigger businesses (Hassan, 2017). This will help them minimize the amount they spend on advertising, and focus on offering outstanding products instead. Outstanding brands should be the focus because the better the quality of the experience of the users, the quicker and larger the loop spreads. The benefits associated with using viral loops are mainly gotten out of its low cost – high spread factor, which exposes a large audience to a company's marketing message. With this, using viral expansion loops are seen to be convenient ways of handling the struggles marketers go through when picking out the elements of content they expect to go viral. The most vital part of the Viral Loop marketing theory is the creation of viral expansion loops. These loops are in three categories; User Actions, Notifications and Conversion, they are dependent on their users disseminating these marketing message to their own network.

The first category hangs on the action a customer takes in buying marketed product. going further, notifications are then sent to other possible customers which can either be synthetic (the company's automated posts), or organic (customers making a post about a brand, or

tagging their friends in a post about the brand). After notifications, most potential customers get to try out the product and become converted. If enough conversions are not generated, there is usually a halt in the spread of the marketing message. Penenberg (2016) opined that viral loop theory as an “engineering alchemy that, done right, almost guarantees a self-replicating, borglike growth”. He argued that viral expansion loops capture offline platforms too since it has been in existence before the internet was discovered. He explained that if an individual should host a Tupperware party for instance, some the attendees will likely be converted into sales people in the future which will bring on a viral expansion loop in an offline environment. The most desired goal of the viral expansion loop is the development of strong user engagement that will at the end convert users into salespeople (Penenberg, 2016; & Lane, 2017). Companies can adopt this theory to make their messages go viral.

## **Conceptual Review**

### **The Concept of Viral Marketing Technique**

Viral marketing technique describes “a strategy where consumers share and disseminate relevant marketing information that is intentionally sent by advertisers in order to promote oral ethics” (Van der Lans, et al. 2010). The term was probably coined by Jurvetson and Draper (1997), the founders of Hotmail. It is used to describe Hotmail's email practice for placing ads on outgoing user mail. They think that if such ads reach out to vulnerable users, they will become infected and sign up for an account and then infect other potential users, they will become infected and sign up for an account and then move on to infect other susceptible users. Hotmail's founders saw viral marketing to be “the vital catalyst for Hotmail's torrid growth”. The style of rapid implementation through various networks was what triggered the usage of the term and not because of the involvement of any traditional virus. According to them, “viral marketing technique can be defined “as making e-mail into a form of advocacy or word-of-mouth referral endorsement from one client to other similar type of prospective clients”. This strategy tackles the strongest of all consumer triggers, which is personal recommendation.

Viral marketing has been compared by some analysts with the living biological virus because of its contagious nature. It can be described as similar to a “digitalized sneeze”, and as “millions of tiny particles that can infect others who come into contact with them”. Just like viruses, the strategy uses intense multiplication to pass on the campaign to a large number of individuals that could run into millions. This can be likened to a case where customers who are exposed to the virus (campaign) can easily pass it on to others who they come in contact with. According to Dobelev et al, (2005) viral marketing technique can be liken to a virus that extends a company's information and its product message, to its customers, is that they spread the word to other similar opportunities and eventually create a great network very quickly. In a similar vein, Palka et al. (2009) explain that the term viral marketing “describes a kind of marketing practice that affect customers with an advertising message which they should pass from one customer to the next like a rampant flu virus”. A variety of terminologies have been used to explain what viral marketing is. 'Word-of-Mouse' and 'Internet Word-of-Mouth' can

also be used to describe viral marketing. 'Captured Marketing' (Kaikati & Kaikati, 2004), 'Marketing Buzz' (Thomas, 2004), and 'Referral Marketing' (DeBruyn & Lilien, 2004) have also been used to describe it.

De Pelsmacker, et al. (2010) opined that Viral marketing Technique is a collection of methods used to encourage product users, participants or to support consumers within the category to create their favorite product. By using emails, SMS, social networks and other communication tools on websites, they can spread the word about the product. It is "any marketing strategy that induces websites or users to pass on a marketing message to other sites or users, creating a potentially exponential growth in the message's visibility and effect" (Leskovec, et al., 2007).

To Kaplan and Haenlein (2011), Viral Marketing Technique entails an electronic based word-of-mouth where a firm's or brands marketing message(s) is transmitted in a rampantly growing way. This is mainly done using of social media applications. The nature of the internet is in supports of the fast and growing rate in the exposure of the message and the influence it has in an easy going way. Because of how fast the internet tends to spread messages, marketers deem it fit to spread only messages about brands that are of value. If this is not considered, other viral campaigns from done by the company might be disregarded. According to Daniels (2001), The sharing of messages through the internet is possible given the improvements of information and communication technologies, and this has brought the need to properly structure viral messages in a unique way that will attract a specific target audience, and also interesting and important enough for people to share it.

Buzz marketing includes ads or messages that cause controversy that lead to gossip or chat topic. For example: a character who leaks controversial or confidential information just before a new movie is released. Gossip is spreading like wildfire; surprisingly fast from one person to another and often to another part of the world, too. Develop a strategy that can provoke a controversy, and spread it from one end of the world to the other. Hidden marketing includes a viral message that immediately appears to be a cool or unfamiliar page, activity or clip, without the annoyance of linking it or passing it on to others. This is an indication that something is being advertised. That's the way the message is conveyed - innocently to other people in a quiet way. The Managed Database is a systematic process of viral marketing that involves users inviting others to join their communities. In this way, users create and manage their own contact list using a database provided by an online service provider. By doing this, they create a viral network, which spreads itself with naturally growing contacts and encourages others to subscribe, too.

### **Concept of Brand Performance**

The concept "brand" is often seen to have a distinct identification. On one part it is seen as a name, a trademark, a symbol, a logo, or an identity, and at the other part, brand includes both tangible and intangible attributes of an organization (Prasad & Dev, 2000). According to Franzen and Bouwman (2001), "via branding, a product's functional and sentimental values are

effectively encoded in customers' perceptions". While some brands meet or exceed their functional expectations, for one reason or the other, negative sentiments might becloud the customers' sense of judgment regarding the functional capabilities of a brand.

Going by studies that have been carried out in the field of marketing, it is seen that "performance is often used as a dependent variable in most marketing literature" (Tran Quan Ha Minh, 2006). The brand performance can be seen as a factor that is in line with the evaluation of the success of a brand, this can assist brands achieve their goals in the market place. The performance of a brand points out how successful a brand is in the marketplace and seeks to evaluate the strategic successes of a brand (Kapferer, 1997). It was stressed that brand performance describes how well the product or service meets customers' more functional needs. In other words, the performance of a brand is seen in terms of meeting the primary or basic need of the customers. In reality, brands may be on top notch in terms of functionality in the marketplace, and still be lagging behind when returns are expected. These returns can be in the form of customer satisfaction, brand preference, sales volume, return on investment (ROI), profitability etc.

According to Chaudhuri, and Moris (2001), brand performance is the result of desirability and profitability in a brand. For a brand to be termed successful, customers need to long for or desire to possess a brand in a manner that enables the brand to generate revenue in excess of its expenses. Brand performance shows the strength of a brand in the market and is also defined as the relative measurement of the success of a brand in the marketplace (O'Cass & Weerawardena, 2010). It is mirrored in its attainment of a firm's strategy and goals. This can be done through its market share, sales growth or profitability. With this a brand is termed weak when it doesn't achieve its set objective and strong when objectives are met. It is known that no two firms can have the same brand goals and objectives in a particular period of time, and objectives of a firm can also change from time to time. It can be brand awareness at one point, and top of mind or brand loyalty at another time. For example, 'Brand A' might be gaining awareness while 'Brand B' will be recording massive number of loyal customers. The details here doesn't make 'Brand A' a failure if the objective is to gain awareness at that period of time.

Luu (2017) revealed that "Brand performance is reflected in its attainment of organizational strategy and goals as it can be measured through its sales growth, profitability, and market share". This shows that brand performance involves how a brand succeeds in the marketplace financially and non-financially. On their part, Styles and Ambler (1997) looked at the performance of a brand as comprising functional, psychological and economic benefits for customers. They stressed that economic metrics alone shows inadequacy for the construct "brand performance". In other words, brand performance shows how a brand financially and non-financially succeeds in the marketplace. Overwhelmed with myriads of choices, customers tend to fall back on brands that give them extra satisfaction.

Adding to the measures of brand performance established by academics, commercial research organizations have also come up with brand performance models on the basis of financial performance measures like return on investment and revenue employed by Forbes (Badenhausen, 2017). When comparing brands with competitors, some researchers emphasized on the efficacy of consumer-based measures because of its accuracy in getting consumers opinions about when compared against financial data of that brand. An example of this can be seen when Johansson et al (2012) exposed how consumer-based brand equity outperform financially-based brand performance measures in determining the performance of GBs in the financial crisis of 2008. According to Rust et al (2004), as far as marketing productivity is concerned, financial metrics have proven to be inadequate. This birthed and increased the use of non-financial metrics. It was further seen that academic studies (e.g. De Chernatony et al 2004, Dawes 2009; Çifci, et al 2016; Dawes 2009) and commercial research organizations (e.g. EquiTrend, Brand Asset Valuator, the Global Brand Simplicity Index and the Future Brand,) advocate consumer-based brand performance measures.

### **Viral Marketing and Brand Performance**

Studies have shown the association between viral marketing and brand performance.

Olanny and Onobrakpeya (2017) in their study on “evaluating the effect of viral marketing on customer brand equity” found a positive association between viral marketing and brand performance. The study was carried out in Nigeria with empirical evidence from eleven (11) nonalcoholic beverage firms in Lagos State, Nigeria. They adopted social networks, electronic word-of-mouth and online trust as the dimensions of viral marketing. The study adopted the same research design (correlational research design) and main instrument (questionnaires) with this study. The authors asserted that through the use of viral marketing, more customers can be reached geographical and by reaching out to more customers, businesses can improve their marketing strategies and create brand equity. They also noted that in viral marketing, the type of associations among customers have psychological effect higher than the nature of the association themselves. With their findings, the authors recommended a broad incorporation of viral marketing in all levels of existing marketing literature alongside the adoption of this strategy by business organizations.

Mehran, et al., (2013) in Tehran Iran, also carried out a study on “investigation of viral marketing effect on customer based brand equity in mobile market”. The study was a descriptive of correlation based on structural equations and questionnaires were employed to gather data analysis was done through structural methods and Lisrel software (version 8.53). Nokia, Sony Ericson, Samsung brands known to be widely used were chosen for the study. From the study they gather that volume, attraction and visual cues of messages that appear as a result of viral marketing is effective on brand awareness and brand loyalty. They also showed that viral marketing is accompanied by low cost with a high impact on a viable investment. With this, they stated that in addition to other marketing components a special attention should be on this because it is the most important factor influencing brand equity.

According to De Bruyn and Lilien (2008), the main drivers in viral marketing are the potency of the free-willed electronic referrals to create awareness, stimulate interest, and generate the adoption of product and sales. Zarella (2010) specifies the goals of online viral marketing as “customer attraction, increasing the level of loyalty, and achieving a higher level of brand awareness and recall at the Point Of Purchase”. Waldow and Falls (2012) also noted that the difference between viral marketing and advertising is that it promotes brand salience in an indirect manner. According to Hassan (2018), viral marketing keeps brand information fresh in the memory of customers more than other promotional tools. This triggers brand salience as it is reflected in how many, how relevant, and how fresh, is the network of brand information in the customer’s memory.

The positive association between viral marketing and brand performance was also displayed in a study on “the impact of viral marketing on corporate brand reputation”, carried out by Lawrence and Lekhanya in 2014. The study was carried out in South Africa, using a stratified sampling method to select 75 companies from four provinces. With the assistance of an interviewer, questionnaires were completed. What triggered their study was the difficulty perceived in managing news flow and reputation as well as the challenges posed by social media, the internet and the urgency to respond quickly. The study employed both quantitative and qualitative techniques to collect data. Their findings showed that viral marketing helps in building strong associations with target customers and also increasing associations’ with target customers and also increases brand reputation. They went further to explain how viral marketing helps in promoting businesses through its cost benefits and its ability to strengthen brands. According to the researchers, viral marketing “has the potential of increasing company brand awareness, popularity, image, trust, and ensuring long-term company and customer associations”

In 2017, Hairiani, Noraishati, and Intan on their part also found a positive and significant association between viral marketing and brand performance when they carried out a study on “the impact of viral marketing via social media in Malaysia”. Fifty (50) respondents from specific locations in Selengor and Kuala Lumpur, Malaysia were picked with the use of simple random sampling. Questionnaires were distributed via the internet and face to face. According to the authors, viral marketing plays an important role in promoting the products of a company as customers point out the advantages viral marketing provide for them in the market. They concluded that viral marketing is one of the vital tools of promotion that organizations should properly consider so as to enhance the sale of their brands in the market. Implementation of viral marketing strategy they say can help a company reduce cost of other promotional methods.

Eda (2013) used one viral video to measure “the effect of viral marketing on consumption behavior” and gathered that, viral marketing has a power that creates online word of mouth activities which in turn affects consumption behaviour and subsequently brand success. This was found in his study on ‘the effect of viral marketing on Y generations purchasing behaviour in Turkey. The study investigated emotional and rational components in viral campaigns so as

to ascertain the effect they have on attitude towards brand and sharing motivation gotten from the content. According to Radoslave and Piotr (2016), consumers who have emotional connections with brands are willing to share information about brands with close associates. This increases virility and subsequently new patronages. In their study ‘on impact of viral marketing on consumer attitudes towards brands’, the duo showed that once a viral marketing campaign shows elements of surprise, portrays the trustworthiness and credibility of the organizations, adverts are targeted towards specific demographics, and supports strong association with other firms in the marketplace, then explosive brand success is inevitable.

In 2018, Ayed Al Muala embarked on a study on “the influence of viral marketing dimensions on customer satisfaction” in fast food restaurants in Jordan. Promotion, brand awareness, trusts and brand association were used as the dimensions in the study. After distributing 159 questionnaires in several fast food restaurants in Jordan, especially in Zarqa city and eliciting data from the participants, the SPSS was used for analyses and reliability analysis, descriptive statistics as well as regression analyses were performed. The study found a significant association between viral marketing and customer satisfaction, and customer satisfaction goes a long way in influencing the performance of a brand. According to the researcher, “viral marketing can influence the feeling of customers toward the value and personality of the brand”. According to Ati Mustikasari, Sri Widaningsih (2018), viral marketing is capable of producing or influencing brand awareness and subsequently, purchase decision on brands. This was gathered in their study on the influence of viral marketing toward brand awareness and purchase decision, carried out in Bandung, Indonesia.

In Sweden, Low Jiun and Goh Yng (2019) found out that viral marketing technique helps in raising consumer awareness and not viewed as spam messages by consumers as they are more receptive to it. This was seen in their study on “viral marketing communication: the internet word-of-mouth: a study on consumer perception and consumer response”. The degree of perception consumers have on viral marketing was also revealed by Chaarlas and Rajkumar in 2014, when they studied “perception on viral marketing among consumers”. They found that the degree of perception individuals and consumers have is moderate and fair.

Radoslar and Piotr (2016) concluded that viral marketing technique helps companies in establishing emotional relationships with consumers that are connected emotionally with brands, and ready to share their emotions and attitudes towards brands with their close associates. They explained that it is a very powerful tool for marketers to strongly attach their consumers to the brand idea, and consumers’ willingness to disseminate that positive idea to other people. This was established in their study on the “impact of viral marketing on consumer’s attitudes towards brands” carried out in Kuwait.

One of the positives associated with viral marketing is its ability to increase brand knowledge. A study carried out by Darel (2017) on the impact of viral marketing through Instagram, targeted the effectiveness of viral marketing on consumer brand knowledge of fashion designer clothing line Maatin Shakir. According to him, “understanding the impact of viral marketing on

consumer brand knowledge will help derive the most effective management approaches for the company". The researcher distributed one hundred (100) questionnaires to active users of social media applications. From the findings, he concluded that the company's viral marketing activities through social media really have an impact on its consumer brand knowledge. Kusumadjaja, (2014) opined that most marketers now pay attention to viral marketing to promote their brands and dive into reputation management as the area is rapidly becoming highly regarded.

One of the largest advantages of viral marketing is that, compared to advertising made through traditional media such as television or print ads, it is very inexpensive. There is no need to pay large sums of money in order to get airtime, no need to pay for printing or even for distribution. It is the design of viral marketing that makes this possible and it is therefore more effective than traditional forms of advertising media. Studies have shown that the generation most active on social media is millennial and this generation is also the one with the lowest trust for traditional advertising (Arnold, 2018). Millennials are shown to be more affected by influencer advertising than advertising made independently by companies. The reason behind this is both that they have more trust for their favorite internet personalities than companies and that they are more inclined to watch ads that will help support content creators (Arnold, 2018).

### **The Moderating Role of Technology on the Association between Viral Marketing and Brand Performance**

Early marketing thoughts concentrated on offering products in the market where consumers had no choice but to purchase what was available. The deployment of economies made companies to become more market and customer positioned. In recent years, technological changes have also reflected in the products in the market. To keep up with their competitiveness, companies need to adapt these changes because of the varieties of substitutes in the market. There is now a greater regard for communication in the internet market, and companies now see social media such as YouTube, Facebook, and blogs as one of the most important ways to be heard (Lusch, 2007).

The internet can be used to send messages to a large number of people, this makes the visibility of the message grow quickly since millions of people use the internet. These communities are used by these people to interact with their close associates and new contacts are also created. Big brands and small ones now launch viral videos via YouTube, post new product information on their Myspace pages, court the blog sphere and send forth armies of evangelists to spread the gospel by word of mouth in order to make people aware of their products and hopefully create a need at the customers for just their products". According to Fergusson (2008), adapting these new media strategies is cost saving, especially in recessions, and also gives companies avenues to increase brand awareness and access the marketing strategy that has been termed the most influential of them all which is viral marketing.

Larson (2009) in her work on “the rise of viral marketing through the new media of social media” also explained that the balance of communication power has without a doubt shifted. Customers now connect with and draw power from each other via empowerment by online social technologies. Barnes et al (2008) in their work on “exploring the link between customer care and brand reputation in the age of social media research study”, 320 respondents were surveyed. They found out that more than 70% of respondents engage in pre-purchase search online. The study also showed that purchase decisions are many times strongly influenced by search engine results, forums for discussions online rating systems, and blogs. In the study, a high number of con

sumers surveyed agreed that their selection of a brand is hinged on reviews of customers gotten from online information gathered and the sharing of knowledge. Sometimes customer's testimonies on the effectiveness of certain brands are recorded and sent out via the internet, this gives it an opportunity to go viral and also attract others to try out the brand. The authors also found out that 81% of their respondents were of the opinion that sharing experiences via social media formats helps foster change in how organizations interact with their customers.

In view of the literature, the study proposed that;

H01: Technological factor does not significantly moderate the association between viral marketing technique and brand performance

## **METHODOLOGY**

This study adopted a correlational research design. It was seen as the best available method to the social researchers, since individuals usually constitute the unit of analysis (According to Anyanwu (2000)? The population of this study comprised all pharmaceutical companies, specifically the four (4) quoted pharmaceutical companies in the South-South Region of Nigeria as reported by Nigerian Stock Exchange in 2019. They are Glaxosmithkline Plc, Fidson Plc, Nigeria- German Chemicals Plc, and Ekocorp Plc. However, the staffs in these companies were chosen as the target population. With a breakdown via the use of purposive sampling technique, the sample size was put at sixty (60). Questionnaires were used as the major instrument haven been tested valid and reliable. Finally, the statistical tool for analysis was chosen. To analyse the data, the Spearman Rank Order correlation coefficient with the aid of the Statistical Package for Social Science (SPSS Version 22.0) was used to test the hypotheses of the study.

## **HYPOTHESES TESTING AND RESULT**

The data collected for the study were analyzed and the hypotheses were tested using Partial Correlation Coefficients with the use of the Statistical Package for Social Science (SPSS Version 22.0) was employed to test the hypotheses of the study.

### Decision Rule

The test for moderation is based on 95% confidence level with 0.05 level of significance. Whether the moderating effect will be accepted or rejected depends on the P value relative to the coefficient for control of effect. with this,, where control coefficient is significant at  $P < 0.05$  the null hypothesis will be rejected and where control coefficient is insignificant at  $P < 0.05$ , the null hypothesis will be accepted.

H01: Technological factor does not significantly moderate the association between viral marketing technique and brand performance.

**Table 4.25: partial correlation analysis showing the moderating effect of technological factor on the association between Viral Marketing Technique and Brand Performance.**

### Correlations

Control Variables		Viral Marketing Techniques	Brand Performance	Technological factor
-none- <sup>a</sup>	Viral Marketing Techniques	Correlation Significance (2-tailed) Df	1.000 . .000 0	.857 .000 54
	Brand Performance	Correlation Significance (2-tailed) Df	.857 .000 54	1.000 .000 54
	Technological Factor	Correlation Significance (2-tailed) Df	.241 .000 54	.291 .000 1.000
	Viral Marketing Techniques	Correlation Significance (2-tailed) Df	1.000 . .000 0	.647 .000 53
	Brand Performance	Correlation Significance (2-tailed) Df	.847 .000 53	1.000 .000 0

Source: (SPSS Output of Data Analysis on Viral Marketing Technique and Brand Performance, 2020)

Table 4.25 above shows that the control coefficient is .847. This value shows a very strong moderating effect of technological factors on the association between viral marketing technique and brand performance. Probability / significant value (PV) is  $0.000 < 0.05$  level of significance, consequently, the researcher rejects the null hypothesis and come up with a conclusion that technological factors moderate the association between viral marketing and brand performance

## **Discussion of Findings**

This study earlier hypothesized that; technological factor does not significantly moderate the association between viral marketing technique and brand performance. However, the tested hypothesis revealed that, technological factors moderate the association between viral marketing and brand performance. As shown in Table 1, control coefficient is .847 signifying a very strong moderating effect of technological factors on the association between viral marketing technique and brand performance. This result cohere with Larson (2009) in her work on “the rise of viral marketing through the new media of social media,” explained that the balance of communication power has without a doubt shifted. Customers now connect with and draw power from each other via empowerment by online social technologies. Barnes et al (2008) in their work on “exploring the link between customer care and brand reputation in the age of social media research study”, 320 respondents were surveyed. They found out that more than 70% of respondents engage in pre-purchase search online. The study also showed that purchase decisions are many times strongly influenced by search engine results, forums for discussions online rating systems, and blogs. In the study, a high number of consumers surveyed agreed that their selection of a brand is hinged on reviews of customers gotten from online information gathered and the sharing of knowledge. Sometimes customer’s testimonies on the effectiveness of certain brands are recorded and sent out via the internet, this gives it an opportunity to go viral and also attract others to try out the brand. The authors also found out that 81% of their respondents were of the opinion that sharing experiences via social media formats helps foster change in how organizations interact with their customers.

## **Conclusion and Recommendations**

Based on the finding, the study concludes there is a significant relationship between viral marketing and brand performance and technological factor significantly influence the relationship viral marketing and brand performance. Based on that, the study recommends that; Companies should include viral marketing in their marketing plan so as to make improvements in their brand performance. Before making a campaign go viral, companies should ensure contents are well structured so as to avoid sending the wrong signals. This is vital because the viral nature of the internet today might make keeping the circulation of a campaign within the targeted audience difficult.

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