5-2020

Health Communication via Social Media: How Pharmaceutical Companies are using Instagram for Corporate Social Responsibility

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A thesis

presented to

College of Arts and Sciences and the Department of Brand and Media Strategy

East Tennessee State University

In partial fulfillment

of the requirements for the degree

Master of Arts in Brand and Media Strategy

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by

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May 2020

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ABSTRACT

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This study examines the depth of audience engagement with six dimensions of Corporate Social Responsibility (CSR) via the Instagram platforms of pharmaceutical companies. Recent research on the relationship between CSR and health communication has established a robust link between both variables but created a gap on the level of audience engagement. Drawing on Voluntary Disclosure, Agenda Setting and Media System Dependency theories, this study finds that voluntary communication of CSR strategies has the maximum potential to set the agenda for audience engagement on social media. The remodeled digitalization of the media has increased the level of media dependency making social media a tool to be leveraged for effective health communication. The results revealed that Community Volunteering had the strongest impact on total audience engagement and revealed that engagement is higher with image posts than video posts. This study is important for the bourgeoning field of CSR in the healthcare industry.

DEDICATION

This study is dedicated to my two precious daughters, best friends and study partners;

Anjola and Anjore. The journey was worth it because of you in the picture. This is dedicated to

all the sacrifices we put in this to make this vision a reality, we made it!

ACKNOWLEDGEMENTS

I am thankful to God almighty for the grace to complete this journey despite all odds and the support system He blessed me with.

My immense gratitude goes to Dr. Susan Waters for her guidance, mentorship, and conscious efforts to strengthen my research and writing abilities through this study. I could not have attained this goal without you, and I am grateful for all you have done for me throughout my stay at ETSU.

To my Committee members: Dr. Stephen Marshall, and Dr. Chase Mitchell, I am thankful for the support throughout my degree. Your encouraging words and constructive criticism have helped shape me into an improved writer and boosted my confidence for the world before me.

Special thanks go to my family for supporting my dreams and goals even when I wanted to throw in the towel. Thank you for your faith in me, and I could not have gone through this challenging journey without your love and support.

Thanks to my Uncle, Tunji Akinboboye; your unwavering support of my dreams is second to none. My brother, Folajimi Akinboboye, this acknowledgement is incomplete without a special mention of your name.

To an ever loving and supportive husband who cheered me on this journey from start to the end. I am blessed to have you.

From the depth of my heart, I thank you all.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter 1. Introduction

In health communication and medical decision making, there have been a few discrepancies over the role of the consumers ranging from discussions on patient's self-diagnosis, to the promotion of possibly harmful drugs in the media space (Donohue, 2006). Over the years, Pharmaceutical marketers have earned a bad reputation for providing their publics with inadequate information and ambiguous claims on the drug risks inherent in their products (Huhmann & Limbu, 2016). This criticism served as a major challenge for marketers in the Pharmaceutical industry which has questioned the ethics of Pharmaceutical marketing in the media space (Cunningham & Iyer, 2005). These controversies have resulted in health policy debates about protecting the healthcare patients. New Zealand and America are the only two countries globally that permit the advertisement of prescription drugs to consumers in a method known as direct-to-customer advertising (Zuppello, 2019).

Various strategies have been devised by public relations practitioners to communicate health topics; some have adopted the use of press releases because the dissemination of health messages is a crucial role. It goes beyond publishing information about diseases to provide content that include health promotion and prevention, best practices and Corporate Social Responsibility strategies of such companies that they represent (Avery, Lariscy, & Sohn 2010). However, the growth of Social Media has provided a more interactive means of communicating with the audience which is two-way conversational and enhanced with feedback (Michel, Ruggiero, & Yang 2016). As such, PR professionals do not depend only on traditional media to communicate with their audience. Current practice involves adopting a balanced mix of both traditional and new media to employ an effective communication process that will ensure the message is adequately delivered to its target audiences (Baruah, 2012). Photo-sharing and

9

messaging apps such as Instagram are major contributors to the Social Media revolution. The combination of text, audio, pictographic and video information in communicating health information has made the platform more popular among health professionals, and pharmaceutical companies as a tool to encourage social and mobile forms of learning health promotion and prevention (Boulos, Giustini, & Wheeler, 2016).

How then, do pharmaceutical companies tell better stories through Instagram, considering that their activities on Social Media platforms are highly monitored by regulatory compliance? Lau (2019) suggests that pharmaceutical organizations use their Instagram pages to showcase a mixture of images and videos that reflect their history, achievements and Corporate Social Responsibility strategies. Other industries have been more active on Social Media and embraced its innovations at a faster pace when compared to the Pharmaceutical industry. This has resulted in the limited knowledge of CSR communication by pharmaceutical industries (Huhmann & Conner, 2014).

Instagram is now the sixth most popular social platform in the world, having reached more than 1 billion users (Worthy, 2019). According to a Pew Research Center survey conducted Jan. 8 to Feb. 7, 2019, Instagram was the only platform that showed an uptick in subscribers since the year 2016; the research reveals that 76% of Instagram subscribers visit the platform on a daily basis, with 60% reporting that they do so several times in a day. Instagram has very deep engagement for brands. A Hubspot Academy survey (2018) reveals that 80% of Instagram users follow at least one brand account, and engagement on the platform is higher than Facebook by 10%, and higher than Pinterest and Twitter by over 50%.

Furthermore, there is a quest to unravel the capacity for the strategically designed CSR messages via this unique Social Media platform to engage the attention of the audience till it can

influence behavioral change which will improve the reputation and operational efficiency of the Pharmaceutical companies (Vogel, 2006). This study aims to contribute to the research surrounding the medias role in this space; that is by investigating its role of communicating Corporate Social Responsibility on Social Media and setting the agenda for audience engagement in the Pharmaceutical industry.

Chapter 2. Literature Review

This chapter discusses the concept of CSR, corporate brand, and Social Media as a source of big data. It also elaborates on the significance of Social Media in communicating CSR Activities, and the application of Social Media to propagate Corporate Social Responsibility endeavors by Health Organizations. It covers discussion surrounding improving corporate image and organizational performance through CSR disclosure on Social Media platforms. The chapter discusses the theories adopted for the study, including Voluntary disclosure theory, Media System Dependency Theory and Agenda Setting Theory respectively. After discussing the theories, they are contextualized to the discourse on the use of Social Media as a CSR communication tool. Relevant empirical studies are also embedded in the thematic discussions as enumerated in the foregoing.

Review of Concepts

Corporate Social Responsibility

Corporate Social Responsibility is increasing gaining research attention all over the world possibly because stakeholders are taking keener interest in the way activities of commercial enterprises are impacting the economy, environment and the society (Maguire, 2011). In recent times, the Corporate Social Responsibility terminology is thinning out and is been replaced with the concept of sustainability (Oyewo & Isa, 2017). Not surprisingly therefore CSR is used interchangeably with sustainability in some climes. The three popular ramifications of CSR or sustainability are economic, environmental and social. Environmental sustainability is about the impact of an organization's activities on the natural environment such as living plants and animals created, as well as non-living things such as the natural ecosystem (GRI, 2013a).

Economic CSR or sustainability is concerned about how the activities of an organization affects

the economic and financial system to cause improvement in the standard of living of people,

create wealth for economic agents and bring about prosperity in human systems connected to the

utilization of economic or financial resources (GRI, 2013b). Social CSR or sustainability

involves improvement in social system and welfare of people in the society. It also extends to

how organizations provide goods and services that meet the needs of the public by ensuring

product/service responsibility (Gonçalves, Medeiros, Niyama, & Weffort, 2013).

The inculcation of Corporate Social Responsibility in business practice is underpinned by

the consideration that it could engender social change. Social change can be regarded as

adjustment of the *status quo* or the way things are done in the society in such a manner that the

social conditions pertaining to human beings alter (Choules, 2007). Alterations in the social

conditions of people may be positive or negative, suggesting that there could be social change

could be classified as either positive or negative. Positive social change is described as measures

taken to ameliorate worsening social conditions pertaining to human beings existing in a society.

Negative social change can be regarded as measures that worsens or deteriorates the social

conditions pertaining to human beings existing in a society.

Corporate Social Responsibility initiatives such as community volunteering, corporate

philanthropy, cause promotion, human rights, and product responsibility also have implications

for corporate branding, as they shape the perception of members of the public on the image of an

entity, which may affect the interaction of stakeholders with such organizations. Not surprisingly

therefore, it is typical of organizations to publish Corporate Social Responsibility reports, either

as part of annual reports or standalone sustainability reports, as a means of showcasing their

responsibility endeavors in order to manage public perception and promote corporate brand

(Eccles, 2011; Maguire, 2011; Makiwane & Padia, 2013). Studies show that involvement in CSR activities is one of the investments organizations undertake to promote their brands (Cravens, & Guilding, 1999; Guilding, Cravens, & Tayles, 2000).

Corporate Brand

A brand is a name, symbol, term, mark or design that enables customers to identify and distinguish an organization's products from that of its competitors (BPP, 2009). A brand helps consumers to distinguish a product or service from other competitors, it is not unusual for firms to invest in promoting their brands by engaging in corporate social responsibility activities because brands contribute to sales drive, conveying message of assurance, value and dependability in their target market (BPP, 2009). Brand-value budgeting and monitoring involves the analysis of the costs and advantages of building brands. Considering that engagement in corporate social responsibility may rouse positive perception about an organization and promote company brand, it is crucial to track the amount expended in engendering positive public image; thus, brand value budgeting falls under the purview of strategic investment appraisal issue. Expenditure on brands and marketing is treated as investments because such expenditure is often significant and strategic: they must therefore be evaluated accordingly. Branding and brand valuation issues therefore involves the evaluation of a brand by measuring its brand strengths in relation to brand equity, brand perception, sentiment score, share of voice and market share.

Social Media

Meaning of social media. The concept of Social Media refers to applications and websites that aid the dissemination of information quickly and conveniently. Contextually designed to facilitate the timely dispersal of information, in the business world of today, there are

now a notable number of applications installed in computer devices that facilitate the sharing of information (Jiang & Chai, 2016). Social Media enables the building of virtual networks because many people can be connected electronically through such platforms (Assunção, Calheiros, Bianchi, Netto, & Buyya, 2015). This provides opportunity for networking, marketing and creating awareness on issues affecting people and organizations. Social Media provides the opportunity to share information on any theme or subject of interest including business, education, sports, health, politics, weather, and entertainment, amongst other subject matters (Demirkan & Delen, 2013). The awareness that Social Media has attracted a lot of users reinforces the argument that it is a veritable tool for commercial enterprises and other organizations to reach their customers and clientele. In other words, Social Media is now an indispensable tool to drive sales promotion, create awareness for products, engage customers, and monitor market sentiment due to its ubiquity and popularity.

Social media as a source of big data. Social Media is also one of the popular sources of gathering big data from Social network data (i.e. vast data from social network sites like Facebook, LinkedIn, Instagram). Social Media provides opportunity for big data and invariably, big data analytics (Guesalaga, 2016; Ang & Seng, 2016). Meanwhile, big data is high-volume data that cannot be analyzed using conventional data analysis methods. The complexity and veracity of such data requires specialized data processing facilities, methodologies and techniques to unlock patterns and uncover trends, relationship or causal connection between items or variables of interests (Chen, Chiang, & Storey, 2012). Such insights are useful for crafting competitive strategies and managerial decision making (Mohammadpoor & Torabi, 2019). When companies analyze discussions and level of brand engagements on Social Media,

this provides opportunity to gain insights on customer sentiments which could be leveraged upon to improve the quality of goods and services.

Instagram as a social media platform. There are various Social Media platforms, including Facebook, Twitter, Snapchat, and YouTube, amongst others. However, this study focused on the use of Instagram by pharmaceutical companies as the Social Media platform explored to communicate health issues to customers and members of the public. The selection of Instagram was informed by the consideration that it provides avenue to upload both textual, audio and audio-visual contents. Thus, since it is rich in content, its analysis will provide rich and voluminous data on various activities of users (pharmaceutical companies).

The growth of Instagram since its launch in October 2010, has made it a relatively novel platform of communication embraced by contemporary Social Media users. Hu, Manikonda, and Kambhampati (2019) submit that the growth of Instagram in the international media space is geometrical and gaining attention as a prospective health campaign tool. Its capacity to disseminate information to diverse audiences increases its reach and facilitates intense discussions about health-related topics with the aid of captivating images as posts.

Over the years there has been an increase in the utilization of Social Media in health communication for promotion and prevention campaigns. According to Hu et al. (2019), the potential dualism between the receiver and sender in the communication process has facilitated the drift from traditional media. The receiver switch roles and become senders who strengthen the content and reach of health messages.

The internet as a basic communication tool in this digital age has become a veritable means for sharing personal experiences and accessing social networks. Carceller-Maicas (2016)

describes Instagram as a unique communication tool that has the potential for social health research with its captivating appeal to young people and ethnographical reach. Instagram is a more diverse, far-reaching and communicative platform, that gives its users room to share a higher quantity of substantial information that will provide more data for any health-related research. Carceller-Maicas (2016) further opines that Instagram as a new-generation dialogic communication tool that helps health researchers to establish a strong connection with conversations that are instant and two- sided. Irrespective of the health topic, utilizing a tool like Instagram makes it easier to connect with the audience and have a closer feel of their experiences and emotional apprehensions.

Lee, Lee, Moon and Sung (2015) conceptualize Instagram as an image machine that captures the attention of its audiences with the ability to deliver photographic messages to various recipients instantly and seamlessly; this nonverbal communication process is an authentic tool for social, political reforms and marketing. Posting a photograph of an essential social or health issue on Instagram, gives it instant exposure to the audience which begins to form and reevaluate opinions about the post (Messner, Medina-Messner, & Guidry, 2016). The posts have the potential of sparking discussions that will birth a new research topic, discovery or insight, strengthening Instagram as a communication tool with the power of feedback which is crucial for every communication process (Lee et al., 2015).

Corporate communications is employing the use of Instagram increasingly and US companies are at the forefront with 45% of the Fortune 500 reported active on the platform in the year 2016 (Russmann, 2017). Utilized as an instrument for managing brand reputation and perception, the Instagram posts which elicit an emotional appeal from the stakeholders are shared with an objective of managing the perception of existing stakeholders and reaching out to

potential stakeholders. This emotional appeal will increase the attitudes towards the brand and also stimulate purchase decision. Russman (2017) describes the redistributing and interactive functions of Instagram as a facilitating agent to the relationship building goal of an organization with its online publics. The images posted by a company depicts reality, aiding trust and regenerated confidence in the brand and its products or services.

Hines and Warring (2019) explain that Instagram's image focused model is a powerful tool for science communication; Baruah (2012) further highlights its advantage as a public relations tool for companies, stating that it can be used to reach out to the publics in a crisis situation that have to do with disasters. The role of the corporate communications experts would be to leverage on the advantages of the platform as a communication tool and downplay the drawbacks to the benefit of the organization. Companies place more value on creating a socially responsible image as a result of its reputable contribution in building brand equity (Crosno, Freling, & Henard, 2011).

Relevance of Social Media in Communicating CSR Activities

The use of social media for CSR purpose. Social Media is a popular tool used by most people working in various organizations and can be an important channel in expressing the vision, value and purpose of the brand to its consumers. The objective of CSR strategies by any brand is 'social capital', and through these tactics, Social Media helps meets the needs of its publics, elicit important information from them and establish good relationships (Farooq, Hao, & Sun, 2018). Various metrics and different media channels are employed across organizations and industries when reporting CSR initiatives; however, most large international businesses ensure that this performance data is captured in their annual reports (Clark, 2008).

According to Curley and Noormohamed (2014), since customers place a high demand on connection and service to the community from organizations that they support, work and invest with; companies must constantly invent techniques to disseminate the socially responsible strategies through a tactical platform capable of promoting and instilling such corporate messages. This has resulted in many companies adding Social Media as major channels for corporate communications to all stakeholders.

The control of traditional media is gradually being challenged by new media which provides faster, interactive and novel methods of engagement with its audiences. Companies will therefore explore innovative ways to restructure corporate social responsibility messages in this budding communications landscape for improved engagement with stakeholders. Social Media also redesigns CSR reporting for an effective and more productive corporate communication process by providing an abundance of channels and strategies to engage with stakeholders (Nwagbara & Reid, 2013).

While theoretical considerations often focus solely on the potential advantages of Social Media, Du and Vieira (2012) state that some establishments with controversial historical backgrounds, maximize corporate social responsibility through new media as a tool of obtaining legitimacy. With the aid of CSR messages on their websites, multimedia skills and Social Media, they make information about the companies more accessible and boost the reliability of the messages using a combination of factual arguments and two-sided messages.

Using social media to propagate CSR endeavors by health organizations. Major health organizations employ the media for propagating health information, establishing relationships and encouraging actions geared towards social change and health improvement. According to (Hyojung, Jon, & Shelly, 2011), health organizations have advanced to using the

interactive features of contemporary Social Media to achieve its brand awareness, marketing and advertising goals. Establishing and maintaining a positive brand image of health organizations on social networking sites require a detailed strategic approach of 'organizational self-presentations' while delivering health literacy messages (Hyojung et al., 2011). Research by Deluca and Enmark (2000) supports that the compatibility between the audiences' cultural features and the corresponding message will strengthen the effectiveness of health communication. Schiavo (2014) further posits that health communication approaches work better when the beliefs, attitudes, social norms and barriers to change are considered when drafting health literacy messages with an in-depth understanding and research into the social, cultural and political environment of the target audience.

Interactive health communication using Social Media tactics and internet skills is increasing the reach and impact of literacy health messages. Targeting the communication to fit into the new "information environments," enhances consistency and dependability of the information delivered which will further boost brand image and perception of the external publics (Fotheringham, Leslie, Owen, & Owies 2000).

E-Health is one of the forms in which health issues are communicated through Social Media platforms. The term E-health has grown rapidly as a very vital component of health communication. E health according to (Eysenbach, 2001), is characterized as an intensive strategy by the pharmaceutical industries to leverage on the advantages that come from merging the internet and health care. It can be described as health topics communicated or improved with the help of technology; Social Media and other mediated and related technologies. As an evolving field in the intersection between health, business and marketing, the objective of e-health will be centered on showcasing organizational information such as CSR strategies in a bid

to attract new patients and deliver wellness information to prospective patients (Deluca & Enmark, 2000).

Olszewski (2015) states that occupational health professionals can advance their practices through the use of virtual platforms such as Social Media. The features of these platforms equip them to disseminate health information proficiently to both internal publics, external publics and other stakeholders. Incorporating Social Media tactics into health communication drives and events allows health communicators to utilize social networks as participatory, conversational and community building channels for health information. This improves the quality and availability of the content because it is delivered to the target audience "when, where, and how they want to receive the health messages" (Pillai, 2012, p.792).

Improving corporate image and organizational performance through CSR disclosure on social media platforms. The practice of communicating health issues by pharmaceutical companies on Social Media platforms could be conceived as CSR initiative. When pharmaceutical companies, as stakeholders in health and safety of the members of the public, share information on health in public domain, such information is freely available to both their customers and non-customers alike. Thus, to the extent that such health information is not commercialized, it could be perceived that these healthcare organizations are philanthropical to the society, and thus engendering social sustainability.

Freely sharing health and safety information in public domain such as Social Media may be expected to improve corporate image and boost performance of pharmaceutical companies engaging in such practice. This is because by divulging information not required by statutes, pharmaceutical companies engaging in such voluntary disclosure are likely to inspire public confidence, which may result into positive perception about the company and its image. Such

positive public perception may rouse customer patronage and investors' confidence, which culminates to improved brand equity.

Brand equity reflects the authentic output or achievements of a company, measured in terms of its Return on Investments (ROI) and marketing goals. The brand performance also includes non-financial measures as per customer satisfaction, efficiency of internal business process and business growth. Organization performance is a multi-dimensional, and a single performance measure cannot be sufficiently used to communicate or gauge the performance of an entity (Ajibolade & Oyewo, 2017a; Ottenbacher, 2007). Performance could be measured in financial and non-financial terms. The information on financial performance can be obtained from financial statements and measures used includes profitability, liquidity, financial risk (solvency/ gearing). Because financial performance measures have limitations such as short-termism, subjection to manipulation and narrowness of the picture of organization performance portrayed (Ajibolade & Oyewo, 2017b), non-financial performance measures have been advocated. Measures that are not financially evaluated focus on broader, long-term issues including customer satisfaction, delivery, processing time (throughput time in manufacturing settings and turnaround time in service industries), innovation, resource utilization, quality, productivity, excellence and competitiveness (Kaplan, 2013). Studies have linked favorable perception on CSR activities to enhanced corporate image and improved performance (e.g., Duke & Kankpang, 2013; Gonçalves, Medeiros, Niyama & Weffort, 2013).

Theoretical Framework

This study invokes three theories to explain the use of Social Media as a source of communication CSR information, including Voluntary Disclosure Theory, Media System

Dependency Theory and Agenda Setting Theory respectively. After discussing the theories, they are contextualized to the discourse on the use of Social Media as a CSR communication tool.

Voluntary Disclosure Theory

CSR communication involves the disclosing information relating to the achievement of organizations objectives in connection with ensuring sustainability to relevant stakeholders. CSR performance reporting is done for both internal and external purposes. For internal purposes, it is important in motivating employees to enhance sustainable business practice (Jensen & Berg, 2012; Khaled & Fares, 2012) and an essential part of an organization's control system. For external purpose, performance reporting is done through corporate reports made available to stakeholders.

The voluntary disclosure theory posits that an organization may willingly choose the volume and depth of information to disclose to stakeholders beyond the specified minimum legal requirement, especially when such information is believed to enhance the decision-making process of the user of such information. As part of their CSR endeavor, pharmaceutical companies may typically disclose health and safety information and engage with customers and members of the public through Social Media when the topics communicated will add value and elicit social change among its audiences.

Research suggests increase in usage and popularity of CSR practice and reporting (Marx & Van Dyk, 2011; Molate, Klerk, & Ferreira, 2014; Oyewo & Isa, 2017). As Niven (2005) notes, there are studies supporting that CSR disclosure has been established as a notable business strategy becoming a full-fledged worldwide phenomenon. Although CSR reporting is a performance management model used to provide performance information for both internal and external use (Uwuigbe & Egbide, 2012; Sulkowski & Waddock, 2014), as described by the

voluntary disclosure theory; it is reasonable to expect that pharmaceutical companies seeking to boost their corporate image would become increasingly willing to disclose this information through platforms accessible to the public. It may be expected therefore that to a large extent, pharmaceutical companies will communicate their CSR endeavors through Social Media, and the themes or agenda of such communication will be wide-ranging. Since there will be a plethora of themes discussed through Social Media, it may also be anticipated that the level or intensity of engagement on the various subjects from audience across the various CSR themes on Social Media pages will be heterogeneous. Furthermore, the voluntary disclosure theory also suggests that since CSR disclosure has signaling property of boosting corporate image of companies that freely disclose information, pharmaceutical companies will leverage on this to effectively communicate their CSR activities.

Media System Dependency Theory

The media system dependency (MSD) theory portrays the media as a system that is solely responsible for information and that its powers and effects are secured by the shortage or uniqueness of information resources. The theory sought to find out the level of effects the media has on its audience under societal and individual conditions (Donsbach, 2008). The theory also argues that the mass media has more effects on its audience when the audience actively depends on it to satisfy or achieve her goals. The more importance the audience places on the mass media, the more effects the mass media will have on the audience (Ball-Rokeach & DeFleur, 1976).

The MSD theory explains the dependency relationship between various social entities (i.e., media, individuals, institutions, and organizations). These levels of relationship, according to Ball-Rokeach (1985), are structured into multiple level of analysis. The micro-level which

describes the media's relationship with individuals; the meso-level describing relationship with groups and organizations and the macro-level describing relationships with other social systems. In all of these relationships, there is inter-dependency, however the level of dependency of each party is higher in different situations. The media has more effects in the time of scarcity of information resources because individuals are more dependent on the media in these times. Ball-Rokeach and DeFleur (1976) further state that the dependency on mass media is cultivated in several ways, such as: (1) Individuals depend on the media to understand their environment; (2) Individuals depend on the media for lessons on adapting effectively to their environment; and (3) Individuals depend on the mass media as an entertainment tool for relieving tension and stress encountered in their environment.

The media develops and offers content that is tailored to meet the goals of the audience; there is a variance in the level of dependence experienced by individuals. Cognitive appeals elicit attention of the individuals while affective appeals ensure satisfaction. However, the combination of both cognitive and affective appeals will result in a higher level of involvement and dependency.

Media system dependency theory argues that people's dependency on the media tends to be increased in crisis situations. (Ball-Rokeach, 1985). The media is a powerful tool in eliciting changes in the behavioral pattern of individuals who are frequently and actively exposed to them. Research has proven that perceived threat or looming danger and crisis are factors that influence media dependency. Using the September 11 terrorist attack, (Lowrey, 2004) establishes that media use and dependency increased to a large extent immediately after the attack. The coronavirus attack on the international community in the year 2020 is also a valid explanation of this theory as the media audience use the various media platforms as information tools to stay

abreast of the situation in their immediate and not so immediate environment as the drama unfolds. Ball Rokeach and DeFleur (1976) observe that audience dependency on the media is a vital tool for altering beliefs, behavior and pre-existing attitudes; a consequence of frequent exposure to mass communicated information.

The Media dependency theory cannot be discussed without dedicating a significant aspect to internet dependency. Today's world is filled with technology savvy individuals who would rather choose Social Media or the internet as their first choice of news over the traditional media (i.e., television, radio, and newspaper). The number of Americans who go on the internet daily is estimated to be 54 million and still growing because of its unique characteristics of entertainment, convenience, and resourcefulness. (DiMaggio, Hargittai, Neuman, & Robinson, 2001). The application of this theory is quite evident in today's world as we can see in our daily lives across all social stratification that the dependency on the media is high. The structure of a society and ambiguity level experienced by members of the audience are some examples of macro factors that influence the intensity of individual media dependency (Ball-Rokeach, 1998; Loges, 1994). The more complex it is for an individual to understand or fit into a social environment, the higher the dependency on the media to provide variety of important roles.

The strength of this theory lies in the power of the media to play its role as a powerful tool of communication by increasing public awareness, informing the media audience and shaping public opinion.

In domesticating media dependency theory to the study, it may be anticipated that customers and members of the public will rely on Social Media (such as Instagram) to get enlightenment and updates on health issues from pharmaceutical companies. This may therefore explain the intensity of audience engagement on Social Media platforms of pharmaceutical

companies. In essence, an audience will engage more on health subject matter(s) that affects him/her in comparison to another health theme that is of less relevance. As it may be expected that the health-matter interests of individuals would be dissimilar, it may be anticipated that the intensity of audience engagement on various CSR themes discussed on Social Media will be heterogeneous.

Considered from another standpoint, since people will face varying magnitude of health crisis and will depend on Social Media platform of pharmaceutical companies to seek information to remedy the situation, it may be anticipated that the level of engagement of audience on Social Media across different subject of discussion will be different. Individuals facing similar health crisis will engage more on certain topic of interest than other audience facing an array of health issues. Therefore, the media system dependency theory will account for the heterogeneity of audience engagement across health subjects on the Social Media platforms of pharmaceutical companies.

Agenda Setting Theory

The Agenda Setting Theory idea posits that the media is responsible for stimulating the interest of the audience about issues. The foundation of this theory is built on two pinnacles; the media shapes and sieves issues before presenting it to the public, while the channels determine which issues are categorized as important (Alalawi & Sixsmith, 2015).

Shaw (1979) focuses on the gatekeeping function of the mass media as the agenda setting theory uses its persuasive skills to focus the attention and determine the relevance ascribed by its audiences to particular topics, issues, events and policies. His notion is that people will only deposit into their cognitive banks, the content that is included by the mass media. Maxwell and Sebastian (2007) posit that the media has a significant influence on the audience by constant

repetition of messages about issues and consequently argue that the power of the media to set public agenda is declining with the growth of the new media where the audience has many channels and the option of choosing their personal agendas.

A burgeoning number of studies seek to explain what sets the media's agenda and unravel the publics increasing dependence on the media. Dearing 1988; Lazarsfeld & Merton (1948) conceived that big businesses and powerful groups have a subtle level of control on the content in the mass media because they finance the production and the circulation of the content. While Erbring, Goldenberg and Miller (1980) interpret the agenda setting role of the mass media as a mirror-image of the concerns of the general public, on the other hand, the media determines the range and depth of public concerns over certain topics. There is an upsurge of content from fake news from the diverse new media channels because these websites do no exert excessive power (Amazeen, Guo, & Vargo 2018); however, fake news does not have the power to set the agenda through the entire media scape.

Agenda setting in contemporary Social Media anchors on the 'intermedia agenda setting theory' which seeks to describe how content is transferred between different media in the current digitalization trend. Harder, Sevenans, and Aelst (2017) draw from their research that online media channels have a huge impact as opinion leaders in agenda setting for the content that the offline media publish. Harder et al. (2017) have established that the role of creating news stories by the traditional media is currently challenged as their speed does not match up with that of the online media and their strength resides more in authenticating and rebroadcasting content.

The agendas of online and offline media have been found to be interrelated across several media platforms. However, the innovation of new data analysis techniques and new measures has challenged the original paradigm of agenda setting. The internet and Social Media is growing

rapidly and more independently from traditional media; this has spurred the traditional media companies to focus more on their online channels and Social Media to stay relevant in the media ecosystem (Natalia, 2017). Baum and Groeling (2008) and McCombs (1993) postulated that the agenda setting role of the mass media is one of its greatest strengths because of its capability to foster social harmony while shaping an agenda and fortify the media community.

The domestication of the agenda setting theory to this study connotes that since the Social Media is instrumental in stimulating the interest of the audience about issues, pharmaceutical companies will leverage on the popularity and ubiquity of Social Media to spread and reiterate issues of health concern to the public. Based on this reasoning, it may be expected that pharmaceutical companies will extensively communicate their CSR activities through Social Media. The theory also explains the perception of pharmaceutical companies that Social Media is effective in communicating their CSR activities. Expectedly, therefore, pharmaceutical companies will influence their audience by constantly repeating certain health and safety messages as part of their social sustainability practice.

The literature reviewed proposes to answer the following research questions:

RQ1: How dominant are CSR dimensions in pharmaceutical organizations' Instagram posts?

RQ2: Does the frequency of CSR variables differ between posts with videos and posts with images and text?

RQ3: What is the level of audience engagement between posts with Image and text or posts with video only?

RQ4: What is the level of audience engagement between posts with CSR and Non-CSR variables?

RQ5: What is the level of audience engagement with each of the CSR variables?

Chapter 3. Method

Content Analysis

The research method for this study will be content analysis. Commonly employed as a valued research method, the content analysis method is a systematic research approach employed to identify and interpret patterns in texts or media and describe the qualitative data in numerical terms of communication (Adelaar, 2006, p.11). Researchers in the social sciences are keen to cash in on the burgeoning demand of the research method because of its distinctive characteristic of condensing numerous data into fewer ones using the rubrics of coding. Media content analysis, introduced by Harold Lasswell in 1962 is a veritable tool for examining a collection of choice data with the objective of identifying popular discourses and their meaning (Matthes & Kohring, 2008). Content analysis categorizes recorded data into more applicable and handy bits of data.

To answer the research questions, Instagram posts were content analyzed over a one-year period from five (5) pharmaceutical companies ranked as the first five on the fortune 500 2019 list to examine the usage of Social Media platforms by pharmaceutical companies for CSR communication and the level of engagements with the posts.

These companies identified as highly responsible and top- earning in the pharmaceutical industry (Fortune 500, 2020) were selected for the representative sample size ensuring it reflects a significant amount of posts including images, texts and videos. Of all the various Social Media networking sites, Instagram was chosen as the platform for this research study because of its increasing relevance and its growing adoption among top brands (Casalo & Flavian, 2017). The uniqueness of the Instagram app is the convenience to share photos and videos that are captivating with the potential for social health research (Carceller-Maicas, 2016). The publics

engage with these posts (images or videos) by 'liking, commenting or sharing the posts. The Research Methodology is presented in three (3) parts, first, the selection of samples and the procedures of the data collection are explained. The coded variables are also illustrated.

Sample: A purposive sampling method was employed. This was done with the objective of obtaining a sample rationally presumed to reflect the entire population (Lavrakas, 2008). A nonrandom selection of the five pharmaceutical companies used in this study was done in such a manner that the sample represents a cross-section of the population. The following criteria were considered in the selection of the sample size: (1) A history of business existence, (2) Financial performance and market value as at March 29, 2019. (As shown in figure 1), and (3) Established Instagram pages.

RANK	NAME	REVENUE	PROFITS (SM)	MARKET VALUE- AS OF MARCH 29, 2019
37	Johnson & Johnson	$81,581.0	$15,297.0	$372,228.9
61	Pfizer	$53,647.0	$11,153.0	$235,781.1
78	Merck	$42,294.0	$6,220.0	$214,680.1
96	AbbVie	$32,753.0	$5,687.0	$119,125.3
123	Eli Lily	$24,555.7	$3,232.0	$134,355.9
129	Amgen	$23,747.0	$8,394.0	$118,220.4

Figure 1. Annual Earnings and Market Value of Pharmaceutical Companies

Organizations with a history of business presence are more often in the public eye and have more clout; these organizations also with annual earnings and market value have a higher chance of allocating funds to sustainability efforts than the smaller organizations. I also ensured that the samples have established Instagram pages (as shown in table 1) because that is the platform employed for this research study.

Table 1

Fortune 500 Companies

Organization name (Fortune 500 rank order)	Instagram handle	Number of Instagram posts in 2019 n (=329)
Pfizer	@pfizerinc	46
Merck	@merck	92
Abbvie	@abbvie	99
Eli Lily	@elilillyco	53
Amgen	@amgenbiotech	39

Table 1 shows the list of pharmaceutical companies employed for the purpose of this research, arranged according to their Fortune 500 ranking and their Instagram handles. Of the 500 companies ranked by Fortune in 2019, this sample size was taken from the sum total of fifteen pharmaceutical organizations . The list of companies included the likes of Johnson & Johnson, Bristol- Myers Squibb, Gilead Sciences, Celgene, and Biogen who have Instagram accounts. For this case the researcher defaulted to the first five companies on the list. Johnson & Johnson ranking 37th of the 500 organizations and the first on the list of pharmaceutical companies was however omitted from the sample because it had no Instagram posts published for the entire period of research evaluation (2019).

Data Collection and Procedures

Field period. We commenced coding of data on February 4, 2020 and ended February 24, 2020. Samples of posts were recorded for each company from January 1, 2019 till December 31, 2019. Amgen had an oddity of only two posts for the period of evaluation. To achieve the objective of sample representation of Instagram posts by Pharmaceutical companies, an exception was made for Amgen and its evaluation period was extended till Feb 20, 2020 to provide a substantial number of posts by each of the companies represented in the sample. The final sample included a total of 329 Instagram posts (209 Images and 120 videos)

Coded Variables

CSR dimensions. The dimensions of CSR are categorized into six groups as shown in Table 2 below and were coded as separate variables for each post. These variables are described as the six major types of Corporate Social Responsibility engagement and ingredients of successful CSR strategies employed by organizations (Page & Parnell, 2019). The codebook analyzed each Instagram post using the six categories and recorded an absence or presence of each dimension of CSR.

Table 2

Coding Manual with Descriptions of Image Categories

CSR VARIABLE	DESCRIPTION	EXAMPLES
Cause Promotions	Providing or donating money to support or increase awareness and concern for a cause or charity	Pfizer provides #waterforall in its operating environment as a crucial part of quality healthcare around the world.
Cause Related Marketing	Contributions to a cause or charity based on a percentage of sales revenues	Abbvie partners with mercy ships (NGO to offer free surgical procedures for people in need.
Corporate Social Marketing	Support for a behavior changing campaign to improve safety, health, or the environment	Merck supporting the Cervical health month and campaigning for health improvement.
Corporate Philanthropy	Direct contribution to a charity or cause	Lily dedicating a street square park as a charitable donation for an urban oasis.
Community Volunteering	Encouraging and facilitating employees to get involved in	20,000 Lily employees take a day off work

	a cause via time off or sabbaticals	each year for Global day of service to volunteer and give back to the society.
Socially Responsible Business Practices	Adopting discretionary business practices to support causes or issues	Pfizer partaking in Oncology medical congresses to review the latest scientific advancements for cancer treatments.

Source: Page and Parnell (2019, p. 220)

Figure 2 shows an example of Cause Promotion by Pfizer on Instagram.

Figure 2. Example of Cause Promotion

Figure 3 shows an example of Cause Related Marketing by Abbvie on Instagram.

Figure 3. Example of Cause Related Marketing

Figure 4 shows an example of Corporate Social Marketing by Merck on Instagram.

Figure 4. Example of Corporate Social Marketing

Figure 5 shows an example of Corporate Philanthropy by Lily on Instagram.

Figure 5. Example of Corporate Philanthropy

Figure 6 shows an example of Community Volunteering by Lily on Instagram.

Figure 6. Example of Community Volunteering

Figure 7 shows an example of Socially Responsible Business Practices by Pfizer on Instagram.
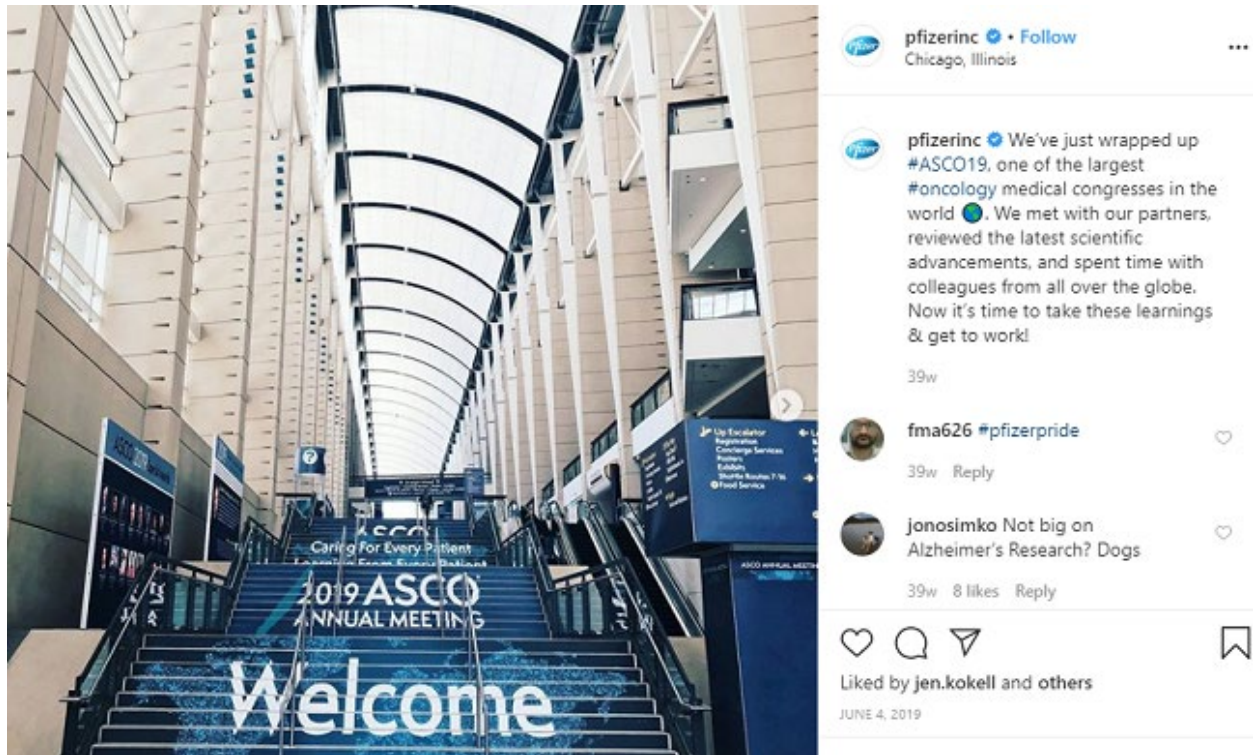
Figure 7. Example of Socially Responsible Business Practices

Procedure

      Instrumentation. Primary data was used from information gathered using the code book. The instrument is written in English language and it has three major spread columns. Column one covers the CSR dimensions, column two measures the post types (Image or video) while column measures the Instagram metrics (i.e. likes and comments). The total number of posts evaluated is 329(i.e., n=329). The data includes CSR, Non-CSR terms and counts of Instagram metrics.

      Data analysis. Data gathered was analyzed using frequency distribution, and percentages while the findings are presented using graphs and tables. Each comment was analyzed in a methodical approach using a codebook and a basic understanding of the CSR

variables definitions. Thus, images that did not have any of these variables was classified as Non-CSR (code identifier: 0). The images were coded into categories, next the number of likes and comments were documented; these metrics were further used to calculate the total engagement per image. Various studies have employed various approaches to measure Social Media engagement while evaluating the behavioral outcomes of audience engagement with posts in Social Media (De Vries, Gensler, & Leeflang, 2012). It has been established that different types of brand messages elicit dynamic levels of consumer engagement in Social Media (Eriksson, Sjöberg, Rosenbröijer, & Fagerstrøm, 2019). For the purpose of this study, we used the definition of total engagement by De Vries et al. (2012) which defines total engagement (TE) as the sum of likes and comments.

Point of analysis. We will find out from this study if pharmaceutical companies are using Social Media (Instagram) as a veritable tool for communicating CSR and if those posts are actively engaging with their audiences.

Table 3

Image Category Coding

Image Category	Identifier
Cause Promotions	1
Cause Related Marketing	2
Corporate Social Marketing	4
Corporate Philanthropy	5
Community Volunteering	6
Socially Responsible Business Practices	7
Non-CSR	0

Coding reliability. To ensure the reliability of the results which include categorical items, two sets of data was coded. The entire data set (n=329) was coded by the researcher while one third (n=110) of the data was coded by a graduate assistant. Using Cohen's Kappa on the SPSS software, we ran the data to see if there was an agreement between the two data sets. The results yielded an acceptable level of κ=.6 which interprets for a moderate chance agreement.

Chapter 4. Results

This study examines the tactics adopted by pharmaceutical companies while communicating CSR on Social Media platforms. The results gathered from the content analysis of Instagram posts will be explained in the section.

The frequencies of the CSR dimensions in the Instagram posts were observed to answer the research questions about the dominance of CSR dimensions in the posts of pharmaceutical companies. Statistical Package for the Social Sciences (SPSS) was used to conduct a chi-square test to determine the level of prevalence of CSR dimensions in post types while frequencies and percentages were used to compare the level of engagement with the various CSR dimensions and post types.

CSR Variables

Overall prevalence of CSR variables. RQ1 sought to determine the prevalence of CSR dimensions in the Instagram posts of pharmaceutical companies. "Community Volunteering" had the highest mention, appearing in 18.54% ($n = 61$) of the posts. "Corporate Social Marketing" followed appearing in 14.29% ($n = 47$) of the posts. "Cause Promotion" and "Corporate Philanthropy" had a tie appearing in 8.51% ($n = 28$) for both. All other CSR variables appeared in fewer than 5% of all the posts. "Socially Responsible Business Practices" appeared in 3.65% ($n = 12$) of the posts while "Cause Related Marketing" appeared in 2.43% ($n = 8$) of the posts. The prevalence of all the CSR variables in all the posts is 55.93% ($n = 184$) as shown in Table 4 and Figure 8.

Table 4.

Prevalence of CSR Related Terms

| Instagram Post	Absent N (%)	Present N (%)
All CSR	145(44.07)	184(55.93)
Cause promotion	301(91.49)	28(8.51)
Cause Related Marketing	321(97.57)	8(2.43)
Corporate Social Marketing	282(85.71)	47(14.29)
Corporate Philanthropy	301(91.49)	28(8.51)
Community Volunteering	268(81.46)	61(18.54)
Socially Responsible Business Practices	317(96.35)	12(3.65)
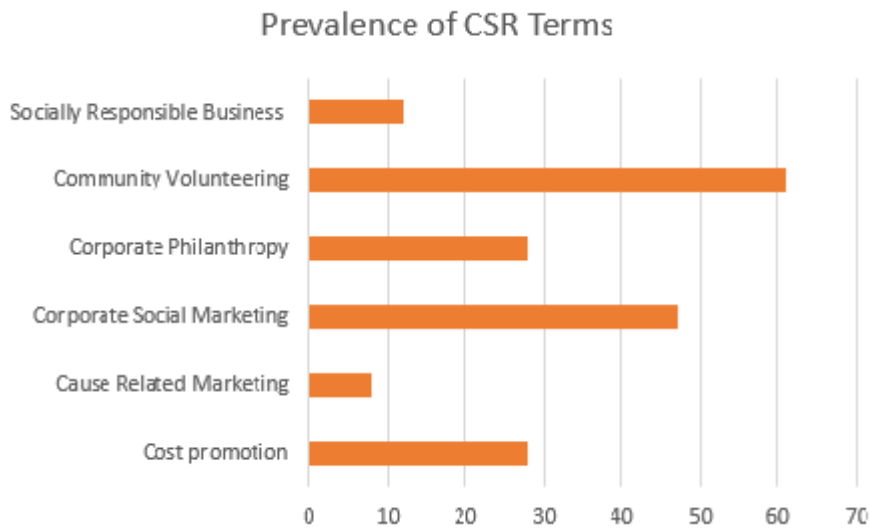
Figure 8. Prevalence of CSR Terms

Prevalence of CSR Variables in Image and text posts Vs. Video only posts

Research question 2 asked if the CSR variables were more dominant in image posts or video posts (Table 5). For "Corporate Social Marketing," video posts referred more to Corporate Social Marketing (16.75%, $n = 35$) than image posts (10.0%, $n = 12$), $\chi 2$ (1, $N = 120$) = 2.8335, $p = 0.0923$. For Community Volunteering, video posts referred more to Community Volunteering (16.27%, $n = 34$) than image posts (22.5%, $n = 27$), $\chi 2$ (1, $N = 120$) = 1.9603, $p = 0.3214$. For Corporate Philanthropy, video posts referred more to Corporate Philanthropy (9.57%, $n = 20$) than posts with image and text only (6.67%, $n = 8$), $\chi 2$ (1, $N = 120$) = 0.8249, $p = 0.3637$.

For Cause Promotion, video posts referred more to Cause Promotion (8.61%, $n = 18$) than image posts (8.33%, $n = 10$), $\chi 2$ (1, $N = 120$) = 0.0076, $p = 0.9304$. For posts with Cause Related Marketing, posts with image and text were more likely to refer to Cause Related Marketing (4.17%, $n = 5$) than video posts (1.44%, $n = 3$), $\chi 2$ (1, $N = 120$) = 2.3969, $p = 0.1216$.

For Socially Responsible Business Practices, posts with text and image only had the same data with posts with video only. There is no statistical significance recorded for any of the variables' relationship to post type (image/text and videos), however, the variable of Corporate Social Marketing is tending towards significance ($p = 0.0923$).

Table 5

Comparison of the Prevalence of CSR related Terms by Images and Videos

Variable	Video N (%)	Image and Text, N (%)	Pearson $\chi 2$	P-value
Cause Promotion				
Absent	110(91.67)	191(91.39)		
Present	10(8.33)	18(8.61)	0.0076	0.9304
Cause Related Marketing				
Absent	115(95.83)	206(98.56)		
Present	5(4.17)	3(1.44)	2.3969	0.1216
Corporate Social Marketing				
Absent	108(90.00)	174(83.25)		
Present	12(10.00)	35(16.75)	2.8335	0.0923
Corporate Philanthropy				
Absent	112(93.33)	189(90.43)		
Present	8(6.67)	20(9.57)	0.8249	0.3637
Community Volunteering				
Absent	93(77.50)	175(83.73)		

Present	27(22.50)	34(16.27)	1.9603	0.1615
Socially Responsible Business Practices				
Absent	114(95.00)	203(97.13)		
Present	6(5.00)	6(2.87)	0.9834	0.3214

Comparison of Audience Engagement between Image and Text Posts Vs. Video Only Posts

Research question 3 asks if there is any difference in the level of audience engagement between posts with image and text and posts with videos only (see Table 6). The image and text category had the higher total engagement of the two categories. The image and text category ($n =$ 209) had a total engagement (TE) of 60,930 which is 54.32 % of the total TE. The video category had the lower TE; for this category, ($n = 120$) and TE = 51,233 representing 45.68% of the total engagement ($N = 329$).

Table 6

Level of Audience Engagement between Posts with Videos and Posts with Image and Text Only

Image category	Likes	Comments	Total engagement	n	% Total engagement
Videos	50,046	1,187	51,233	120	45.68
Images and text	59,420	1,510	60,930	209	54.32
Total	109,466	2,697	112,163	329	100

Comparison of Audience Engagement between CSR Posts Vs. Non-CSR Posts

Research question 4 asks if there is any difference in the level of audience engagement between posts with CSR variables and the posts with Non-CSR variables (see Table 7). The CSR category had the higher total engagement of the two categories. For this category, (n = 184) and had a total engagement (TE) of 68,533 which is 61.1 % of the total TE. The Non-CSR category had the lower TE; for this category, (n = 145) and TE = 43,630 representing 38.9% of the total engagement (N = 329).

Table 7

Level of Audience Engagement between Posts with CSR and Non-CSR Posts

Image category	Likes	Comments	Total engagement	n	% Total engagement
Non-CSR	42,527	1,103	43,630	145	38.9
CSR	66,939	1,594	68,533	284	61.1
Total	109,466	2,697	112,163	329	100

Research Question 5 asked for the level of audience engagement with each of the CSR variables (Table 8). The highest engagement category (TE = 26,006) was the community volunteering category which accounted for 18.5% of all the posts analyzed and 37.94% of total engagement. This category also had the highest number of likes, comments and CSR posts. The lowest total engagement CSR variable (TE = 1,429) was the Cause Related Marketing which accounted for 2.43% of all the posts analyzed and 2.1% of total engagement. This category also had the lowest number of likes, comments and CSR posts. The number of CSR posts in each

category also descended along with TE except for Socially Responsible Business Practices (*n* =

12, TE = 6,864) where engagement was higher than Corporate Philanthropy who had a lower

number of CSR posts (*n* = 28, TE = 6,489).

Table 8

Level of Audience Engagement Between Each of the CSR Posts

Image Category /Variable	Likes	Comments	Total Engagement	N	% Total engagement
Cause promotion	11,102	383	11,485	28	17
Cause Related Marketing	1,393	36	1,429	8	2
Corporate Social Marketing	15,949	311	16,260	47	24
Corporate Philanthropy	6,369	120	6,489	28	9
Community Volunteering	25,566	440	26,006	61	38
Socially Responsible Business Practices	6,560	304	6,864	12	10
Total CSR	66,939	1,594	68,533	184	100

Chapter 5. Discussion

Summary of Findings

Previous studies have examined pharmaceutical companies, their Corporate Social Responsibility strategies, Social Media tactics and the impact on brand perception, brand equity and financial performance (Adi & Grigore, 2015; Malik & Kanwal, 2018), but have not examined the level of engagement of the audience with CSR messages on Social Media platforms. Therefore, this study attempted to expand on this body of knowledge by contributing to the research surrounding pharmaceutical companies' utilization of new media tactics to boost the level of audience engagement as it relates to CSR messages. This study reveals that CSR has not been on the priority list of messages to disseminate via Social Media platforms of pharmaceutical companies.

The analysis of the results has shown that most pharmaceutical companies are already investing in CSR activities by adopting some dimensions which include but are not limited to Cause Promotion, Corporate Philanthropy and Community Volunteering. Investing in CSR activities and strategically communicating the CSR efforts online has various advantages that will positively impact the organizations brand reputation. Research Question 1 sought to find out the prevalence of CSR variables in the Instagram posts of Pharmaceutical companies. Hence, the study categorized all the Instagram posts into six variables. Findings for Research question 1 revealed that Community Volunteering was most prevalent amongst all the other variables. Plewa, Conduit, Quester, and Johnson (2014) describe community volunteering as an "effective engagement initiative" (p. 645). The high occurrence of this variable in all the posts analyzed could be applied in the context that companies believe that community volunteering has the potential to enhance the corporate brand and improve a corporate culture while also giving back to the society. Findings for Research Question 2 revealed that CSR variables are more prevalent

in Corporate Social Marketing. This is explainable because this CSR dimension accommodates campaigns that target behaviors which relate directly to the products that pharmaceutical companies have to offer its audiences. Polonsky (2017) describes Corporate Social Marketing as an effective tool in promoting social outcomes because it supports behavioral changes that enhance the well-being of the environment.

Research question 3 sought to compare the level of audience engagement between Image and text posts with Video only. Surprisingly, posts in the image and text category had the higher total engagement. This could be justified by the claim stating that Instagram's historical statistic account for higher engagement with Image and text posts than videos because users find them easier to interact with on this platform (Dopson, 2020). A second explanation could be that people digest information on Image and text posts faster than videos; therefore, it has the potential to drive more traffic and clicks. Research question 4 went further to compare the level of audience engagement between posts categorized as CSR Non-CSR posts. Significantly, CSR posts received more engagement i.e likes and comments, than Non-CSR posts. Pharmaceutical companies relatively prioritized CSR posts over Non-CSR posts: and the results find that engagement with these posts were higher than the other variable compared (Non-CSR); this is surprising because it does not reflect the audiences' cynicism of CSR communication (Cho, Furey, & Mohr, 2016). A possible explanation emanates from the conscious efforts of health communication practitioners and lessons learnt from research by previous scholars to strategically craft CSR messages in a way that appeals more to the emotions of the external publics. For Research question 5, Community Volunteering had the most engagement; this finding was expected considering that it had the most prevalence amongst all the CSR variables categorized (Research question 1). Therefore, it is recommended that Pharmaceutical companies

engage in all six areas of CSR but may focus more efforts in Community volunteering, Corporate Social Marketing and Cause Promotion because they have the higher levels of audience engagements.

Furthermore, pharmaceutical companies can take advantage of the strengths in the voluntary disclosure theory by freely disclosing and communicating CSR activities aimed at global impact. The willingness of pharmaceuticals to disclose CSR on their Instagram pages without being mandated or obligated to do so reflects responsibility and will enhance the corporate brand image of the companies. This further strengthens the companies to utilize Instagram as a tool for stimulating the interest of the audience towards what is categorized as important via the CSR posts and furthermore set the agenda; this sort of messages signal more to their emotions as the audience engagement tends to gravitate towards CSR messages than non-CSR messages. In domesticating the Media System Dependency theory to the study, the results reveal that the audience depend on Social Media for informed updates on health issues; therefore, it is imperative to put the patients first by embracing and effectively broadcasting messages such as access to medicine initiatives. The audience is more likely to depend on and engage with the Instagram posts when it has the potential to satisfy their goals or meet their needs.

Implications: The results from this study reveals that CSR plays a dominant role in the Instagram posts of pharmaceutical companies and attracts a higher level of engagement when compared to the Non-CSR posts. The data gathered will serve as a reference point and provide a clearer perspective to business leaders and decision makers in the industry when incorporating CSR into their business strategies. This research is resourceful for pharmaceutical companies who are seeking for effective ways to improve the audience engagement with their CSR

strategies on Social Media platforms, and for researchers that seek to study the effectiveness of these processes. From the analysis and discussion of findings, it is apparent that pharmaceutical companies need to beef up their communication of CSR activities via Social Media platforms as there is no significant difference in the number of CSR posts and non-CSR posts.

Limitations and Future Directions

Limitations. The results of this study have provided substantial findings, however there are still certain limitations to put into perspective which will provide directions for future research. First of them is that a constructed year sample was drawn of posts from January 1, 2019 till December 31, 2019 which resulted in the final sample size of 329 Instagram posts. In the time allowed for this study, the researcher could only code for 329 posts, which could make the study slightly underpowered. Though the relatively small sample size was challenging for data analysis, our results are consistent with the procedures so despite not reaching formal statistical significance, the data are suggestive of a deliberate utilization of Social Media strategies by pharmaceutical companies in communicating CSR.

Secondly, this study only examined the activities of pharmaceutical companies on the Instagram platform. While it is the sixth most popular Social Media platform in the world (Worthy, 2019), there are several other Social Media platforms that could be used to evaluate the activities of Pharmaceutical companies as a CSR communication tool. Future research could explore other samples of Social Media platforms and include other definitions of audience engagement with posts on Social Media which could include metrics like shares, comment replies and video views. Engagement has the potential to change from time to time; comments can be deleted and likes removed whenever the fans desire. This was accounted for by gathering all the engagement values on the same day. Considering that the sample size for this paper is

limited to five pharmaceutical companies Instagram pages which depict a sample within a vast industry, there is need for caution while generalizing these findings.

Future directions: This study is primarily centered on pharmaceutical companies. Future research could examine other industries from the healthcare sector who are also famous for employing CSR strategies as an ethical obligation. Furthermore, the posts were categorized into six dimensions of CSR which were chosen based on the six practice areas of CSR and how it connects to firms by Page and Parnell (2019). Given that there is no absolute rule to this, future studies could further expand on this by categorizing posts into other dimensions. A larger sample size could also be adopted in the future with the objective of obtaining a smaller margin of error.

Conclusion

To conclude, this study examined the medias role in communicating CSR in the pharmaceutical industry and the level of audience engagement with the CSR messages. Results show that CSR messages are more prevalent than Non- CSR messages.

The burgeoning communication of CSR on Social Media over the years has made it more imperative for the health industry to voluntarily communicate its CSR efforts and initiatives. Page and Parnell's (2019) categories of CSR provided a systematic framework to review the level of dependency of the fans on the Instagram pages as the posts set the agenda for audience engagement. Though majority of these messages are categorized as Community Volunteering, the results show that the other CSR dimensions show a tangible amount of representation and audience engagement. These CSR programs are effective tools of communication that produce visible results when encountered by the audience on the Instagram pages.

The current global health crisis and the developments regarding the coronavirus disease 2019 (COVID-19) is an opportunity for Pharmaceutical companies to leverage on the publics dependency on the media and ensure to provide factual and truthful updates on their Social Media platforms. It should be their highest priority to remain committed to their Social Media platforms and utilize them for communicating informed developments such as COVID-19. This is a CSR tactic that will be beneficial for the company's post-crisis because crisis management and CSR work in tandem (Yates, 2018). The contribution to the social development in a crisis will boost reputation capital because crisis management is a vital tool for any organization that recognizes the advantages of being socially responsible.

Finally, to boost the level of audience engagement with these CSR messages (Schreiner, Fischer, & Riedl, 2018), pharmaceutical companies could increase their use of Social Media for CSR messages, strategically frame their CSR strategies, and craft them with an emotional appeal which have the potential to capture audience attention and produce the desired engagement for enhanced reputation of their brand.

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