EXAMINING THE UTILISATION OF VIRTUAL ENGAGEMENT BY ETHEKWINI PHARMACEUTICAL REPRESENTATIVES DURING COVID-19 RESTRICTIONS

by

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SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

MASTER OF BUSINESS ADMINISTRATION (MBA)

FACUTLY OF MANAGEMENT SCIENCES

DURBAN UNIVERSITY OF TECHNOLOGY

SUPERVISOR:

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June 2023

ABSTRACT

Customer relationship management (CRM) across all platforms is crucial for pharmaceutical companies to fully maximise and implement in meeting customer needs. During the COVID-19 lockdown, pharmaceutical companies were unable to fulfil their obligations of sharing critical education-related clinical information due to strict lockdown measures that were government imposed. The healthcare providers' (HCPs) engagement and products offered by the pharmaceutical industry are regulated by the government. Almost all pharmaceutical companies were forced to re-evaluate and implement different methods of engaging with HCPs. During the COVID-19 period, pharmaceutical companies reviewed how they engage with HCPs.

Pharmaceutical representatives' role are crucial in ensuring that relevant product-related information is shared to the HCPs. The correct product information is cascaded from pharmaceutical representatives to the patients via their HCPs. It was expected that pharmaceutical representatives continue to engage with HCPs irrespective of lockdown restrictions. This gave a rise to virtual engagement as a method of engaging with HCPs.

This study examined of utilising virtual engagement by eThekwini-based pharmaceutical representatives in meeting their targets and key performance indicators while engaging with HCPs.

A quantitative study method using seventy-one respondents was employed to collect data related to virtual engagement by administering a questionnaire to the targeted respondents. The respondents completed the questionnaires which were purposely sent to a specific WhatsApp group consisting of eThekwini-based pharmaceutical representatives.

Data was statistically analysed using the Statistical Package for Social Science (SPSS) software. The research questions focused on understanding: the influence of COVID-19 lockdown in successfully marketing products and services virtually; whether virtual

engagements are an effective method for pharmaceutical representatives to interact with healthcare professionals, and marketing tools are successful in engaging with healthcare professionals.

The results indicate that 68% of respondents engaged both virtually and in-person during the COVID-19 lockdown either 5 – 6 times or more than 8 times a week. Furthermore, there is a significant agreement that the representatives successfully utilised virtual engagement using Teams, WhatsApp and phone call. The results indicate a 53,5% positive effect of virtual engagement on the marketing of products to HCPs.

This study concludes that the results concurred with other studies in the world and present an insight into eThekwini-based representative in utilising virtual engagements. Perception of pharmaceutical representative in utilising these marketing tools provided insight for virtual engagement post COVID-19.

It is recommended that companies may re-adjust their state of preparedness in adopting virtual engagement where face-to-face interactions are limited and when investigating newer ways of implementing and migrating towards virtual customer engagements post-COVID-19.

DECLARATION

I, Thabisile Gumede, hereby declare that this dissertation is original, and all the contents are appropriately acknowledged and explicitly referenced. A bibliography is appended to the thesis. Furthermore, it represents my opinions and not necessarily those of the Durban University of Technology.

I also certify that the thesis has not heretofore been submitted in any of its parts or entirety for a degree of Master of Business Administration (MBA) in any other institution of higher learning locally or internationally.

I hereby give permission for my work to be available for photocopying and/or re-printing, for inter-library loan, and for the title and abstract of this thesis to be made available to other educational institutions and students.

Thabisile Gumede (20202361) Date 18 June 2023

DEDICATION

This dissertation is dedicated to my husband, Sanele Shazi and my kids Kuyenzeka and Siminaye for their endless prayers and guidance while continually providing me with emotional and moral support.

To my mom, dad and siblings for cheering me when I thought of giving up.

And most importantly to my Mighty Heavenly Father for giving me the strength, power and skills to be the best version of myself.

ACKNOWLEDGEMENTS

I would like to convey my sincere appreciation to my supervisor Prof BI Dlamini for his insight, support, and expertise.

I am grateful to my previous Director, Sandra Lambert for inspiring me to pursue my studies and a dream that I had shelved years ago. Your inspiration to pursue my career aspirations does not go unnoticed.

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LIST OF ABBREVIATIONS

HCPs	Healthcare Providers
COVID-19	Coronavirus Disease 2019
DUT	Durban University of Technology
CRM	Customer Relationship Management
SPSS	Statistical Package for Social Science Software program
SAMED	South African Medical Technology Industry Association
WHO	World Health Organisation
SARV-COV-2	Severe ACUTE Respiratory Coronavirus infection

CHAPTER 1: INTRODUCTION/OVERVIEW

1.1 INTRODUCTION

Companies employ a pharmaceutical sales representative to act as a link between the healthcare providers (HCPs) and the pharmaceutical company whose main role is to market and promote company products and services to the HCP. This was primarily done through face-to-face sales detailing with HCPs before COVID-19 lockdown.

Due to the global pandemic, the South African government enforced restricted COVID-19 lockdown resulting in constrained HCP interactions with pharmaceutical representatives, limiting opportunity for sharing valuable product information and services to offer optimal care for the patients. Furthermore, this resulted in companies migrating towards digitalisation while interacting with HCPs through virtual methods while ensuring information sharing, meeting organisational key performance indicators, and striving to meet targets.

This chapter of the dissertation introduces the research including the problem statement, aim and objectives of the study.

1.2 BACKGROUND OF THE STUDY

Some pharmaceutical companies were not implementing digitisation to interact with HCPs at such a high rate as seen before the COVID-19 lockdown restrictions (Couchbase, 2017). Post COVID-19 some of the HCPs did not return to face-to face interactions with company representatives. These pharmaceutical companies turned to virtual form of engagement to communicate with HCPs. This gave a rise to virtual clutter within the pharmaceutical sector as means marketing their products and services.

This research, based in eThekwini Municipality, seeks to understand the influence of COVID-19 lockdown on pharmaceutical representatives using virtual engagement to interact with HCPs. The research sought to understand how the lockdown may have impacted pharmaceutical representatives in meeting their key performance indicators.

The information may assist pharmaceutical companies in evaluating which type of virtual sales promotional tools may be beneficial in meeting organisational goals. This research may also indicate the state of preparedness for companies in adopting virtual engagements during pandemics where customer face-to-face interactions are limited, and when pharmaceutical companies are migrating towards digital marketing of their services.

This research for this mini dissertation used a quantitative research method that generates statistics using a large-scale survey. Questionnaires were sent to the identified target audience. Descriptive analysis was used to analyse the current situation of eThekwini-based pharmaceutical representatives in using virtual engagements in interacting with HCPs. The major purpose of descriptive research was to obtain an accurate description of the situation as it exists within eThekwini Municipality. The research was cross-sectional in nature as it was a once-off study due to limited time. Probability sampling was used as there is availability of the target sample frame based on the representatives that are on the WhatsApp group. The number of respondents were known and were all given equal opportunity of being selected.

1.3 CONTEXT OF THE RESEARCH

Companies employ a pharmaceutical sales representative to act as a link between the HCPs and the pharmaceutical company. Their role is to market and promote company products and services to the HCPs. Their time, which represents significant contribution to the pharmaceutical marketing budget, is spent on face-to-face sales detailing with HCPs (Harindranath, Sivakumaran, Bharadhwaj, Jacob and Jayanth, 2019).

The lockdown limited opportunity for sharing valuable product information and services with HCPs whose role is to offer optimal care for their patients (Arndt, Davies, Gabriel, Harris, Makrelov, Robinson, Levy, Simbanegavi, Van Seventer and Anderson, 2020). The highly restricted lockdown which was implemented in March 2020 changed the way HCPs interacted with pharmaceutical representatives (Mbunge, 2020). Quarantine restrictions locked-down hospitals from being accessible by pharmaceutical representatives to allow

more focus on healthcare workers on saving lives instead of marketing and customer engagements (Stiegler and Bouchard, 2020).

Continued ongoing lockdown restrictions meant hospitals and HCPs were inaccessible to many pharmaceutical sales representatives thus rendering a loss of physical access and face-to-face marketing of their products. The HCP practice rooms, hospitals and hospital personnel were inaccessible to many sales representatives for over a year. The number of face-to-face engagements declined considerably to more than 55% in marketing and customer engagements, therefore pushing pharmaceutical companies to re-think of other ways to effectively communicate and engage with the HCPs (Harindranath *et al.,* 2019).

Most pharmaceutical representatives had to move from face-to-face marketing initiatives to virtual and digital platforms at a rapid rate. This had created more digital clutter across different digital medias such as Zoom, Teams and emails used by pharmaceutical companies. This also saw an increase in CRM tools being developed and adopted by pharmaceutical companies (Winn, 2021).

1.4 PROBLEM STATEMENT

Most pharmaceutical companies were not implementing digitalisation at such a high rate as seen before the COVID-19 lockdown restrictions. Companies, trade publications and blogs report inspiring and successful implementation of virtual engagements, while some surveys indicate a less promising picture (Couchbase, 2017). According to a recent report by Accenture (2020), 39% of HCPs would still prefer pharmaceutical representative meetings to be delivered via virtual platforms while only 10% want to engage face-to-face and in-person.

Virtual clutter may have a negative effect on marketing initiatives and the type of products and services that are rendered by the HCPs. This research sought to understand the influence of COVID-19 lockdown on pharmaceutical representative based at eThekwini in using virtual engagements to interact with HCPs and impact on key performance indicators. The information gathered from the research may assist pharmaceutical

companies in evaluating which type of virtual sales promotional tools may be of benef in meeting organisational goals.

1.5 AIM OF THE STUDY

The aim of this study is to examine the utilisation of virtual engagement by pharmaceutical representatives in the eThekwini Municipal during COVID-19 restrictions.

1.6 OBJECTIVES OF THE STUDY

The objectives of the study are as follows:

- To determine the influence of COVID-19 lockdown in successfully marketing products and services by eThekwini-based pharmaceutical representatives while using virtual engagements.

- To determine whether virtual engagements are an effective method for pharmaceutical representatives in interacting with healthcare professionals.

- To examine which marketing tools are used by pharmaceutical representatives in successfully engaging with HCPs virtually within the eThekwini Municipality District.

1.7 RATIONAL OF THE STUDY

It is imperative to explore the willingness of eThekwini-based representatives on virtual engagement in interacting with HCPs in marketing their products and services. The results gathered may enhance understanding of eThekwini-based representatives in virtual engagement and redefine how pharmaceutical representatives communicate, market their products and services while building mutual beneficial relationships with their targeted HCPs.

The findings may also be beneficial in understanding the limitations that may decrease pharmaceutical representatives' efforts to implement virtual engagement in marketing and promoting their products and services to meet company objectives. The results may also indicate the state of preparedness for companies in adopting virtual engagements during pandemics where customer face-to-face interactions are limited, and when

pharmaceutical companies are investigating into migrating towards digital customer interactions.

1.8 STRUCTURE OF THE MINI-DISSERTATION

This dissertation is structured into five chapters that present the main aspects of the study relating to the research process.

Chapter 1 provides the introduction and background of the study, research problem, aim and objectives of the study, rationale for the study, and preliminary literature review.

Chapter 2 covers the literature review on pharmaceutical representatives' utilisation of virtual engagement during COVID-19 lockdown specifically and its impact on the global pharmaceutical industry and referring to the South African industry of the study population.

Chapter 3 provides the research design and methodology of the study, a quantitative research model, population, sampling methods specifically selected for the study, measurement tools utilised, data collection methods and analysis and ethical considerations will be presented in greater detail within this chapter.

Chapter 4 provides the data analysis and interpretation of the results of the study being undertaken.

Chapter 5 provides the conclusion and recommendations based on the collected data and findings of the study.

1.9 CONCLUSION

This first chapter introduced the study while presenting the background of the study as well as the aims, objectives, and rationale for undertaking the study. The chapter also presented an outline along with brief explanations of the dissertation chapters. The next chapter will therefore build on the current chapter by providing an in-depth literature review of the study.

CHAPTER TWO: LITERATURE REVIEW: OVERVIEW OF PHARMACEUTICAL INDUSTRY

2.1 INTRODUCTION

The previous chapter provided an orientation of the study by providing the background and overview of the study being undertaken. Furthermore, the previous chapter detailed the problem statement and the aims of the study. Within this chapter literature review and the theoretical framework will be discussed in greater detail.

Within this chapter, the literature review available locally and internationally on the role of pharmaceutical representatives within the pharmaceutical industry will be discussed. Critical aspects such as the use and type different virtual engagement during COVID-19 when pharmaceutical representatives globally interact with healthcare providers will be discussed.

2.2 COVID-19 AND THE PHARMACEUTICAL INDUSTRY

This chapter will focus on presentation of how the researcher defines his or her study methodologically, philosophically, and analytically (Ahmad, Shah, Latada, and Wahab, 2019).

The COVID-19 pandemic negatively impacted the pharmaceutical industry, their marketing strategies, macro and micro business environment due to lockdown regulations, quarantine measures, drastic slowdown in global economic, decrease in exchange rate and social distancing (Almurisi, Al Khalidi, AL-Japairai, Mahmood, Chilakamarry, Kadiyala, and Mohananaidu, 2020; Tirivangani, Alpo, Kibuule, Gaeseb, and Adenuga, 2021).

This resulted in many companies reassessing and seek alternative ways to continue marketing and engaging with HCPs in-order to maintain business objectives (Sawad and Turkistani, 2021). Furthermore, increased difficulty regarding supply chain management such as securing raw material for production purposes while ensuring that the final goods reach their targeted customers (Chowdhury, Paul, Kaisar, and Moktadir, 2021). Sawad and Turkistani (2021) also agreed that within the pharmaceutical industry sales were not

negatively affected due to high demand for medicines. However, the marketing of products was a major problem.

2.3 IMPACT OF GLOBAL PANDEMICS

Pandemics such as COVID-19 have increased health concern globally. The recent global pandemic is not the first pandemic to have a negative effect on the global public health. There have been similar pandemics as declared the World Health Organisation (WHO) in history such as the Severe ACUTE Respiratory Coronavirus infection (SARS-COV-2), smallpox, the black death, cholera, Spanish flu, and most recent the COVID-19 pandemic which was reported in China in December 2019.

According to Tirivangani *et al.* (2021), such pandemics with a global health concern are likely to increase due to migration and globalisation. They may also have a negative impact on socioeconomic status of the community at large including that of the pharmaceutical industry.

2.4 GLOBAL REVENUE OF PHARMACEUTICAL INDUSTRY

This industry is amongst the five industries contributing to the global economy. One third of the market is dominated by the ten biggest pharmaceutical companies with more that 30% profit margins and over US$10 billion sales per year (Prakash, 2022).

The role of the pharmaceutical industry is critical in providing healthcare services globally. The important role this industry contributes towards mankind, preserving and sustaining lives was further brought to light during the global pandemic (Tirivangani *et al.,* 2021).

2.5 THE PHARMACEUTICAL OPERATIONAL ENVIRONMENT IN SOUTH AFRICA

This industry is complex and highly regulated internationally and nationally which leads to the discovery, production, marketing, and sales to all be rigorously supervised in South Africa. Almost all the pharmaceutical companies operating in South Africa are part of the global environment. These multinational pharmaceutical corporations dominate the local pharmaceutical industry. The industry is mainly made up of public and private sector. Many active pharmaceutical components and completed pharmaceutical goods are

imported, even though roughly 70% of the used pharmaceutical products are made locally (Research and Markets, 2022).

The South African Code of Marketing Practice represents the industry's commitment to ensuring that the promotion of medical products is carried out in a legally, ethical, and dignified way, regulates the advertising and promotion of medications to healthcare professionals and the public (Krebs and Marais, 2018).

As pharma companies compete for business within this highly regulated and competitive industry by providing cost effective products, it is imperative that they remain relevant to their customers' needs. It is therefore becoming increasing important that companies within this industry strive to succeed while remaining profitable when interacting with their customers through their pharmaceutical representatives (Court, 2020; Turkistani and Sawad, 2021).

2.6 SOUTH AFRICA'S PHARMACEUTICAL CODE OF MARKETING PRACTICE

The South African Medical Technology Industry Association (SAMED) is one of the associations formed in 1985 within the pharmaceutical industries comprising of multinational companies, distributors, wholesalers and local manufacturers of medical devices, medical equipment to name a few (SAMED, 2021).

The SAMED members are further governed by the Code whose purpose is to encourage fair competition amongst companies in the pharmaceutical sector and promote ethical business practices amongst its members, interactions amongst pharmaceutical representative and HCPs. Furthermore, the Code details a set of guidelines for the promotion of drugs to patients and healthcare professionals. Its definition of marketing is broad as it includes all activities intended to increase the number of prescriptions, usage, and purchases of medicines. The pharmaceutical businesses' marketing efforts cannot be masked and must be readily identified as such by all members who abide to the Code. Virtual engagements and face-to-face engagements by pharmaceutical representatives are also subjectable to the SAMED Code (SAMED, 2021; Turkistani and Sawad, 2021).

2.7 OVERVIEW OF PHARMACEUTICAL REPRESENTATIVES

Within the pharmaceutical industry, pharmaceutical companies make use of their sales team to educate, market, and influence HCPs about the company's products leading to prescription behaviours of different customers. Product detailing and marketing to HCPs is an effective tool in the promotion process. According to Court (2020), pharmaceutical companies rely on sales and marketing initiatives of the field sales force to sell company products and services for achieving companies' profits.

South Africa had several disease peak surges of the COVID-19 pandemic like most other countries globally. These disease peak surges had an impact on how the pharmaceutical representatives perform their duties. Historically it took years for pandemics to be fully eradicated and the same may be said for the COVID-19 pandemic. South Africa, like the rest of the world may have to learn to live with another possibility of an outbreak or resurfacing of future variants (Rutty, 2021).

2.8 NATURE OF PHARMACEUTICAL REPRESENTATIVE JOB DESCRIPTION

Prior to the lockdown, pharmaceutical representatives were expected to physically see HCPs to market their products and services to meet their key performance areas. The COVID-19 lockdown restrictions imposed by the government as well as company decisions in retracting their field sales force personnel from the field hindered face-to-face marketing initiatives of the pharmaceutical sales representatives (Chiplunkar, Gowda and Shivakumar, 2020).

Lockdown restrictions further decreased face-to-face engagements with HCPs. It is upon this limitation that pharmaceutical companies use digitalisation and virtual engagements to enhance sales effectiveness.

2.9 DYNAMICS OF PHARMACEUTICAL REPRESENTATIVES

According to Rahul and Prakash (2022), pharmaceutical companies continue to explore new ways to research new medicines and ensure that they reach their target customers. This is done by strategically launching a product in the market while establishing organisation's brand. This leads them to ensure that their branding and marketing

techniques yield profits in the shortest possible period. Pharmaceutical representatives are important in realisation of these marketing initiatives.

Pharmaceutical representatives are professionals who educate, market, distribute and provide after-sale service of medical products and goods manufactured by companies such as prescription medication and surgical devices. For the pharmaceutical company, pharmaceutical representatives are revenue generators, face of the company and accountability holders (Harindranath *et al.,* 2019). They furnish HCPs with a variety of product-based information as means of generating sales for their organisations. Furthermore, these experts ensure therapy, share product updates timeously while ensuring availability of medication and surgical devices to the HCPs and general consumers (Accenture 2020; Court, 2020).

Prior to the COVID-19 pandemic, pharmaceutical representatives were expected to promote their organisational products in front of the HCPs. This is known as face-to-face detailing and took place in the surgical rooms and hospital environment. According to Phillips (2020), there has been a noticeable decline for pharmaceutical representatives to access HCPs for over a decade. This has significantly declined further due to COVID-19 restrictions and quarantine policies.

2.10 REDEFINED HCP'S ENGAGEMENT AND COMMUNICATION

The pharmaceutical industry went through certain changes as means of communicating with their customers. South Africa went into level 5 lockdown as means to curb and relieve the healthcare sector to deal with the increase in COVID-19 positive cases soon after the first cases of COVID-19 were detected in the country. HCPs practices and hospitals were inaccessible for most of the field sales force. According to Winn (2021), in the United States, China and Australia this resulted in a decline of more than 55% in face-to-face marketing initiatives in 2020.

2.11 INCREASE IN VIRTUAL INTERACTIONS

Worldwide lockdown led to a rise to virtual engagements such as Zoom and Teams, as HCPs expected product related information to be attended to. More than 85% of pharmaceutical sales representatives used digital marketing tactics to reach out to HCPs in America during the lockdown (Mahoney, 2021).

Digitalisation may allow pharmaceutical companies an opportunity to continue engaging with HCPs and channel marketing initiatives that are mutually benefiting. For most companies the role of pharmaceutical sales representatives may not return to pre-COVID norms soon (Phillips, 2020).

2.12 THE FUTURE OF MARKETING INITIATIVES USING VIRTUAL INTERACTION

Companies, trade publications and blogs report inspiring and successful implementation of virtual engagements, while some surveys indicate a less rosy picture (Couchbase 2017). The intensity of future pandemics and lockdowns may become a reality. It is upon this concept that companies continue to be profitable in their marketing and detailing efforts to completely incorporate alternative customer engagement strategies (Aditya, 2021).

According to Mahoney (2021), virtual marketing engagements with HCPs is still a new and a growing concept. There is limited information available for the South African market especially for eThekwini. The results gathered from this research may assist in understanding how virtual engagement marketing is impacting HCP interactions for eThekwini-based pharmaceutical representatives during lockdowns; understand the limitations of fully implementing virtual engagements and the tools that are mostly preferred by HCPs during these engagements.

2.13 THEORETICAL FRAMEWORK BASED ON CUSTOMER RELATIONS MANAGEMENT

According to Sweeney, Clarke, and Higgs (2018), a theoretical framework is a technique to define concepts, definitions and previous theories that correspond with the current study being done. These frameworks are significant as they demonstrate the researcher's comprehension of the numerous ideas and theories related to any chosen area of study.

Furthermore, a theoretical framework provides a foundation to advance into more expansive fields of study connected to the researcher's first field of study.

Granath (2018) states that it is becoming challenging to succeed within a sales environment in the 21st century and that salespeople that use technology do better than their competitors. Digital tools that assist sales professionals to enhance their work are referred to as sales tools. Sales is an umbrella phrase that incorporates tools such as CRM, sale's intellectual ability and prospecting, marketing acceleration, and data connections and integrations.

Organisations are concerned about their current and potential customers. This highlights the importance of customer value to any organisation such as retaining, acquiring customers, continued building of mutually benefiting relationships to ensure that both organisational goals and customer needs are continually met. The ultimate result is ensuring profitable and long sustainability of any organisation. This has led to a concept that has been growing in relevance over the years known as CRM (Tigari, 2018).

2.14 OVERVIEW OF CUSTOMER RELATIONSHIP MANAGEMENT

A CRM is described as a business process and technology combination that aims to comprehend a company's clients from the aspects of their identities, how they operate, and their current situation (Granath, 2018). The viewpoint is consistent with previous scholars who also view information technology as an important and critical aspect of CRM to maximise customer loyalty (Kampani and Jhamb, 2020).

There are different types of CRM that organisations may choose to focus on based on their business objectives. Analytical CRM deals with procedures that involve identifying target customers, obtaining user input and evaluating customer data to generate and offer value for targeted consumers(Kumar, Sharma and Dutot, 2023).

Strategic CRM is another type that focuses on strategic customer-centric information that is backed up by all organisational departments. Operational CRM is concerned with use of information and communication technologies inclusive of sales, marketing and automation management. The last type is collaborative CRM that includes strategic

elements that make it possible to share consumer data across the organisation's network and focus on specific targeted audience. Some of the key concepts that lead organisations to use CRM is customer satisfaction, relationship management, customer loyalty, electronic CRM, mobile CRM, virtual CRM and automation (Tigari, 2018; Kampani and Jhamb, 2020; Chatterjee, Chaudhuri and Vrontis, 2022).

In the context of the study under investigation, the theory of CRM has been applied in examining the utilisation of virtual engagement by eThekwini-based pharmaceutical representatives during COVID-19 restrictions. Scholars state that CRM is described as a business process and technology in creating and maintaining the proper connections with key clients their respective segments and increasing shareholder value. This theory aids in maintaining the status of current customers, fostering client relationships, boosting client retention, achieving sales and marketing initiatives, and automating communication (Tigari, 2018; Kampani and Jhamb, 2020).

The theory of customer relationship management is befitting for this study as it will guide the researcher in answering the critical research questions that are concerned with utilisation of virtual engagement by pharmaceutical representatives during COVID-19 restrictions.

2.15 GLOBAL CRM MARKETING STRATEGIES DURING COVID-19

Based of literature from United States, Germany, India and China, organisations moved to a variety of technology-based approaches as a means of reaching their customers being the HCPs to promote their products(Sawad and Turkistani, 2021).

A study done by Accenture (2020), determined that COVID-19 changed HCP and pharmaceutical business to higher value-added virtual interactions. The same study also stated that pharmaceutical companies may need to redefine and plan how they interact with HCPs. Virtual engagement may be the new approach of creating long-term mutual benefiting and meaningful connections with customers. Almost 87% of respondents were considering implementing virtual interactions with HCPs on a permanent bases after COVID-19 pandemic.

Rahula and Prakash (2022) indicated that the pandemic may have introduced newer digital means of communication with HCPs to enhance marketing initiatives. Another study done by Mahoney (2021) found that 85,3% of pharmaceutical sales representatives used digital marketing tactics to reach out the HCPs in America during COVID-19 lockdown. The same author also concluded that virtual pharmaceutical representatives' engagements with HCPs is still a new and growing concept.

2.16 OMNICHANNEL MARKETING AS AN APPROACH FOR PHARMACEUTICAL REPRESENTATIVES

Within the pharmaceutical industry omni-channel marketing involves integrating the customer's experience across all touchpoints, whether they are online or offline. This implies that all channels should provide a fluid and cohesive customer experience. Currently, mobile devices act as a communication medium between the platforms in omnichannel marketing. One of the main goals of this type of marketing is a consistent experience for customers throughout their interactions with the different platforms available from the company (Payne, Peltier, Barger, 2017).

Scholars Houghton (2019) and Yohn (2018) state that omni-channel marketing may be used for pharmaceutical representatives. For omni-channel marketing to be successful in the pharmaceutical industry, organisations should create a customer-centric approach. This must entail prioritising their customers' needs while proactively meeting their needs appropriately Mockus (2020).

Figure 1. Example of customer centric approach though out the organisation (Smith 2019)

Figure 1 illustrates an approach a customer centric approach that ensures the greatest possible customer experience whereby the customer chooses to employ multiple forms of communication. The use of consistent marketing customer centric messages and visuals sent across a variety of platforms, devices, and media, omnichannel marketing enables pharmaceutical companies to market their products and devises to consumers at any given time (Kaiponen, 2021).

2.17 CONCLUSION

This second chapter indicated the impact that COVID-19 lockdown had on pharmaceutical representatives' engagement with HCPs. It examined the virtual tools utilised by the industry to engage with HCPs during restrictions. The next chapter will discuss methodology pertaining to the study.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter describes and justifies the research methodology and further discusses the design adopted to gather and analyse data. Included in this chapter is the research design, sampling methods, target population, data collection methods and data analysis methods will be explained. Furthermore, the validity and reliability and important ethical issues will also be discussed.

The conceptual foundations of quantitative research, including sample techniques, data collection tools, and the justifications for selecting quantitative approach for this this research are discussed. The research methodology ensured and assisted in answering the research objectives.

3.2 DEFINITION OF RESEARCH METHODOLOGY

Research methodology is the study of how scientific research is conducted. This is a system for strategically implementing different procedures to answer the research challenge in a systematic manner. Furthermore, this results in a scientific investigation while the process itself is better understood with the support of a methodology (Patel and Patel, 2019).

3.3 RESEARCH DESIGN

Avella (2016) defines research design as the method used to conduct a study. The research design is descriptive analysis as it refers to the statistical process of describing, aggregating, and displaying the key variables (Bhattacherjee, 2019).

Quantitative descriptive research can integrate data gathered from statistics in addition to analysing questionnaire (Hu, Fan, Li, Gou, Li, and Zhou, 2020). A descriptive research design has been used for this study as it allows for the collection of extensive information. The purpose of descriptive research for the study was to obtain an accurate description of the situation as it exists within eThekwini amongst the pharmaceutical representatives.

The research was cross-sectional in nature as it is a once-off study due to limited time. Scholars agree that a once-off study can be undertaken when time is limited (Sürücü and Maslakçi, 2020; Bryman, Bell, Hirschsohn, and Dos Santos, 2021).

Questionnaires were used to collect data as they are a low-cost method of gathering information. Questionnaires are beneficial as they utilize few resources, have few sample mistakes, yield rapid results, and allow respondents to respond at their convenience time (Ganesha and Aithal, 2022).

3.4 TARGET POPULATION

Schraeder, Reid and Brown (2017) define a target population as the cumulative number of items that form the universe under an investigation. Most of the pharmaceutical sales representatives in KwaZulu-Natal cover either the mainline area, coastal area, or the whole province. In addition, it is well known that most of these pharmaceutical sales representatives belong to a WhatsApp group based on their location. The coastal area group, which is made up of pharmaceutical representatives that are eThekwini-based, has 161 representatives registered in their WhatsApp group. This means that the target population of the study is the 161 representatives registered pharmaceutical sales representatives of the coastal group of KwaZulu-Natal.

3.5 SAMPLING METHOD AND SAMPLE SIZE

Thomas (2020) defines simple random sampling as a method used when every member of the population has an equal chance of being selected. The entire population of the pharmaceutical representatives on the WhatsApp group is known and have been included in this study. Simple random sampling has been used as it gives each member of the population an equal chance of participation.

The following equation was used to determine the sample size (Sürücü and Maslakçi 2020).

$$n = \frac{N}{(1 + N\,\alpha\,2)\ x\ 2}$$

n = Sample size

N = Total Population

α = The degree of confidence level

For the research to be statistically significant, a 95% confidence level is used with a marginal error of 5% (Fowler and Lapp 2019) With a population size of 161, the sample size of 114 was adequate to collect statistically significant data from the respondents.

3.6 MEASURING INSTRUMENT

The measuring instrument used in this study was a questionnaire. A decision was taken to construct a measuring instrument rather than using an existing instrument. A questionnaire as a type of research tool was used to gather data from respondents. The measuring instrument for the study consists of twelve closed-ended questions and one open-ended question. Further insight was sought by utilising as open-ended question. This is particularly helpful when researchers want to elicit responses from participants in their own words (Ganesha and Aithal,2022).

Questionnaires do not always have both closed-ended and open-ended questions. They have either of the two with the mixed option being rare when the researcher aims to gather data to assist in answering the research questions (Bhat, 2018). Structured questionnaire as the most appropriate method has been used to undertake this research. The questionnaire was made up of a combination of open-ended questions and one closed-

ended question which were be self-administered. It took ten minutes for the respondents to complete the questionnaire.

Pre-testing of the questionnaire has been done to provide direct evidence for the validity of the questionnaire data. Prior to administering the questionnaire to target audience, it was tested to a group of targeted respondents. These respondents formed part of the pilot study to ensure questionnaire reliability and that the questions were understood by the respondents once administered. There was a consensus that the questionnaire would yield information on virtual engagement during lockdown.

Due to respondents being situated within different locations and the current COVID-19 restrictions, a remote data collection method had been used. Thirteen standardised questionnaires were created online using Google Forms and sent electronically via a link to the relevant WhatsApp group which directed respondents to the questionnaire. Once respondents had completed the questionnaire, the answers were automatically sent for collection.

3.7 DATA ANALYSIS

The data was analysed using SPSS statistical package (Version 29). Descriptive statistics and chi-square and binomial test were employed. Frequencies, percentages, and cross tabulations were used to describe the data. Measures of central tendency and dispersion were implemented to understand the data at various points.

3.8 PRETESTING THE QUESTIONNAIRE

Pretesting a questionnaire is crucial and an easy way to determine prior to administration of the questionnaire if it will be problematic for responders to be able to complete the questionnaire. Ikart (2019) further recognised the need for questionnaire preparation testing to ensure that it is able to gathers the information needed for the research and mitigate against issues that may lead to measurement error after it has been administered.

A pilot study was used to assess the feasibility, duration as well as to improve the study design before it is administered for the research study. Piloting of the questionnaires and

mode of delivering the questions was done by sending a link via WhatsApp to five members of the intended sample population thus reflecting the anticipated sample characteristics. Results of the pilot study were captured separately from the main research. These members were thereafter excluded from participating in the actual study.

3.9 ADMINISTRATION OF THE QUESTIONNAIRE

Self-administered questionnaires create on Google Forms were delivered via a link sent to all the participates within the group to voluntary participate in the research. Once a participate had clicked on the link, it redirected them to an electronic version of questionnaire. All questions were standardized so that all participants received the same questions with identical wording. It took the participates 10 minutes to complete the questionnaire. Prior to analysis, the questions were all coded.

3.10 DELIMITATIONS/SCOPE AND GEOGRAPHICAL LOCATION

The research was limited to pharmaceutical representatives that work within the eThekwini Municipality.

3.11 POSSIBLE SHORTCOMINGS

Some of the possible shortcomings may be that the research cannot be generalised to other parts of the country, respondents may not be honest due to the sensitivity of the topic and that they may be low response rates (Ganesha and Aithal, 2022).

The questionnaire is only accessible where there are no connectivity and internet issues. If a respondent attempted to access it and was unable to due to connectivity issues, this may have been a possible shortcoming.

3.12 VALIDITY AND RELIABILITY

According to Surucu and Maslakci (2020) validity measurement is a starting point for insight into the complex issues of investigation in research. Validity in research is important as it is concerned with the generalisation of the research findings (Bannigan and Watson, 2009).

Face validity was undertaken and scrutinised by an academic in the field as well as a practitioner within the pharmaceutical industry. This was done to ensure that the

questionnaire relatively measures what it intended to measure. The instrument was also submitted to the research supervisor to ensure validity. Factor analysis was used to also assess validity. Reliability was addressed using Cronbach Alpha.

3.13 ETHICAL CONSIDERATIONS

Prior to the commencement of this research, the researcher signed documentation disclosing commercial interests as a means of minimising any conflict of interest. For the questionnaire, a consent form was developed in simple language. The purpose of the study was explained and reasons the respondents were chosen to participate. Participants were reassured of confidentiality of the findings. Participants' right to withdraw from the study at any time was clarified and emphasised. All steps were taken to ensure that no physical harm will be suffered by anyone during this research.

Data was collected under strict conditions of anonymity. The respondents' identities were kept confidential. Confidentiality was assured as none of the questionnaires had names or details of the representatives being studied. The purpose of the research project and explanation of the how the respondents were to help in the study were explained in the beginning of the questionnaire and assurance provided for their confidentiality and anonymity. Completed questionnaire have been password protected and stored in a safe storage for five years and thereafter will be deleted. As a result, substantial efforts were taken to ensure that critical business information will not be disclosed to competitors.

3.14 CONCLUSION

Within this chapter the research methodology and study design of the research were stated. Furthermore, this chapter of the dissertation critically justifies the use of quantitative methodology as a suitable method for examining the utilisation of virtual engagement during COVID-19 restrictions. The following chapter interprets the data and uses the findings to either confirm or reject the literature review.

CHAPTER 4: DATA, ANALYSIS, AND INTERPRETATION OF RESULTS

4.1 INTRODUCTION

The previous chapter described and justified the research methodology and further discussed the design adopted to gather and analyse data for the study. This chapter represents the results of the study. Within this chapter of the dissertation, the analysis of the data collected with the intention of examining the utilisation of virtual engagement by eThekwini pharmaceutical representatives during COVID-19 restrictions will be presented.

The data collection tool that was used as the survey instrument was a questionnaire consisted of thirteen questions. Twelve were closed-ended questions. One of the questions was purposely selected as open-ended questions as means to allow the respondents flexibility in how they word the response.

4.2 RESPONSE RATE

The sample size was 114 and of those 81 responded to the electronic questionnaire that was sent via a link to the WhatsApp group. The study had a response rate of 71%. Ten respondents were removed from further participation in the research as they did not use virtual engagement during COVID-19 lockdown.

The final participation rate was 62% which is deemed as acceptable for an online response rate. Statistically a response rate of more than 60% is acceptable for an online survey (Lund, 2023).

The data collected and presented within this chapter is made of data that was analysed using different tests namely descriptive, chi-square goodness-of-fit-test, binominal and one sample t-test. Results are in tables and graphs.

4.3 STATISTITACAL ANALYSIS

The data was statistically analysed using SPSS statistical package (Version 29) using the computer software. Descriptive statistics including the mean, standard deviations and frequencies were used to analyse the data. Frequencies are represented in tables and graphs. The Chi-square test which is a univariate test was used to test whether any of the

response options are selected significantly more or less often than the others. The binomial test was used to test whether a significant proportion of the respondents select one of a possible two responses. One sample t-test was used to test whether a mean score is significantly different from a scalar value.

4.4 DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Descriptive statistics are crucial they provide demographic details of the respondents in a clear manner. The first part of the questionnaire covered questions one to four being the demographic characteristics namely÷ gender, education level and number of years on the job. Findings will be presented within this chapter of data analysis.

4.4.1 Gender

The distribution of the respondents is indicated in Figure 4.1. The female respondents 60 (84,5%) accounted for a higher representation in the research while the remaining 11 (15,5%) were male as shown in Figure 4.1.

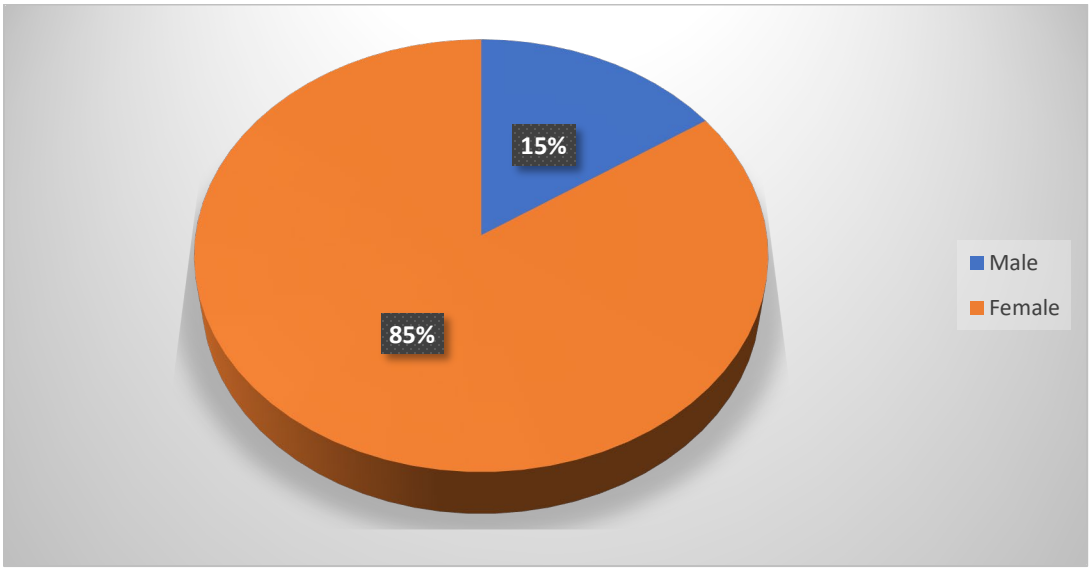

Figure 4.1: Gender of respondents who were included in the study

There has been an increase in female representation within the pharmaceutical representative over the years. The majority of the responded are female which was expected for the pharmaceutical representative as this is consistent with research that

was done by the a few authors (Khazzaka, 2019; Ravindran, Teerawattananon, Tannenbaum, and Vijayasingham, 2020; Potokar, Wilson and Mancini, 2023).

4.4.2 Respondents' education and gender

The research found that most respondents (56,3%) had an undergraduate degree or diploma within the pharmaceutical representative sector as seen in Figure 4.2.

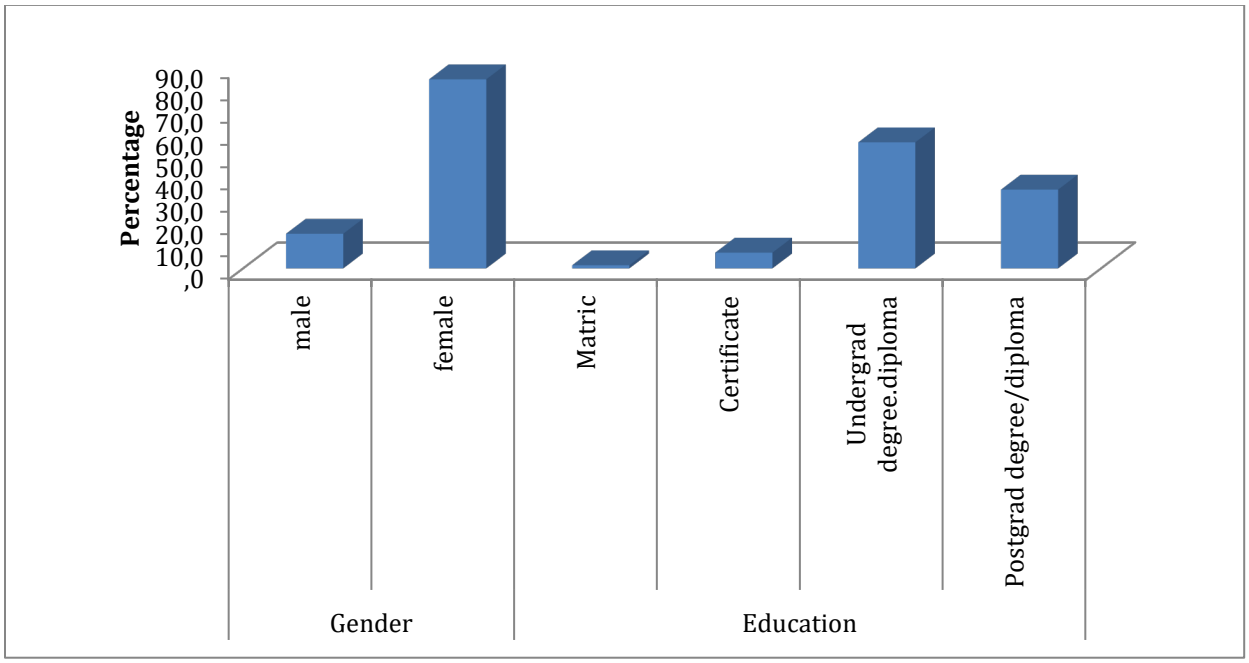

Figure 4.2: Education and gender representation of the respondents

Pharmaceutical representatives are required to engage with HCPs in a scientific manner (Phillips, 2020). The results indicate that 35% of respondents have completed a post graduate qualification to be able to engage technically with HCPs and this is consistent with articles that have been discussed in the research literature chapter. More than 80% of the pharmaceutical representative that are based in eThekwini have obtained at least an undergraduate diploma or degree.

4.4.3 Tenure and number of companies worked for in three years

A 52% of respondents have worked for the same company in the last three years as shown in Figure 4.3. A further 32% of respondents have worked for the same company in the last three years. The pharmaceutical industry takes into account novel and cutting-edge tactics in an effort to inspire and retain pharmaceutical representatives for a long period within the same company (Mustica, Cates and Jackson, 2018).

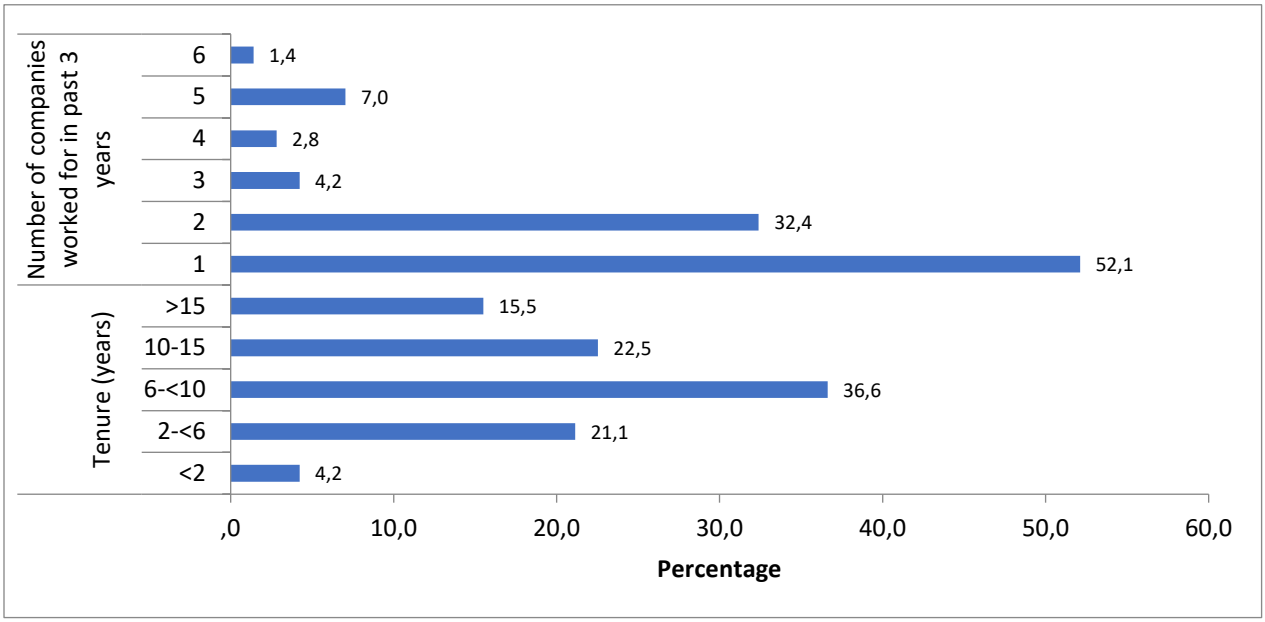

Figure 4.3: Tenure and number of companies worked for in the past three years

According to Tirivangani *et al*., (2021), the role of the pharmaceutical industry is critical in providing healthcare services. This has been noted during global pandemics. This is also seen in Figure 4.3 where almost 40% of the pharmaceutical representatives in eThekwini District have been in the industry for more than 6 to less than 10 years. It is observed that there is also a significant number (22,5%) of pharmaceutical representatives that have been in the industry for more than 10 years to 15 years.

4.5 VIRTUAL ENGAGEMENT

This section of the data analysis will discuss eThekwini-based pharmaceutical representatives' virtual engagement during the COVID-19 pandemic. The SPSS was utilised to analyse the data by performing a Chi-square goodness-of-fit-test, binomial and

one sample t-test while linking the results to the study objectives. The results of these tests will be discussed further within this session.

The binomial test which is used to test if a significant proportion selected one of the two options was used to analyse the data. It is worth noting that ten people were excluded from completing the questionnaire as they did not engage virtually during lockdown.

Virtual engagement increased significantly during lockdown as companies explored alternative ways to engage with HCPs. eThekwini pharmaceutical representatives were also not spared from the impact of the lockdown in their engagements with their customers. (Sawad and Turkistani, 2021; Tirivangani *et al.,* 2021).

4.5.1 Engaging virtually with HCPs

The respondents were asked to indicate how they engaged with HCPs prior COVID-19 lockdown and to compare how often in a week they engaged with HCPs. A significant 48 (68%) indicated that they engaged with healthcare professionals both virtually and in person during lockdown as shown in Figure 4.4 below.

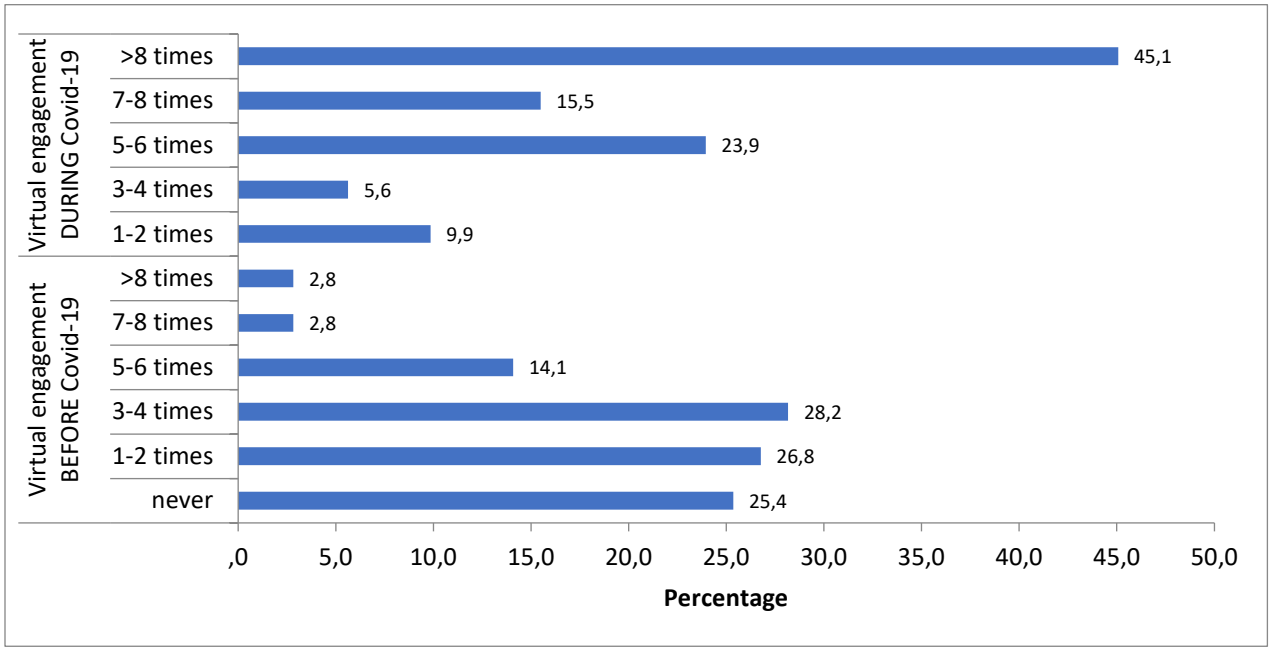

Figure 4.4: Virtual engagement before and during COVID-19 lockdown

Prior to COVID-19 lockdown, the number of virtual engagements per week was significantly less. During lockdown the number of virtual engagements increased to more than eight per week. The results correlate with other studies by Rahula and Prakash (2022) and Phillips (2020) in other parts of the world. The frequency of virtual engagement prior and during COVID-19 lockdown are tabulated in table 4.1.

Table 4.1: Frequency of virtual engagement

Virtual engagement	Responses as Frequency (%)						X^2	df	p-value
	Never	**1-2 times**	**3-4 times**	**5-6 times**	**7-8 times**	**>8 times**			
Before COVID-19	***18 (25.4)***	***19 (26.8)***	***20 (28.2)***	10 (14.1)	2 (2.8)	2 (2.8)	29.817	5	<.001*
During COVID-19	-	7 (9.9)	4 (5.6)	***17 (23.9)***	11 (15.5)	***32 (45.1)***	34.563	4	<.001*

* Indicates significance at the 95% level

A significant 80.3% engaged virtually at most 4 times a week before COVID-19. Almost 70% engaged virtually either 5-6 times or >8 times a week during COVID-19. This highlights that pharmaceutical companies in eThekwini were turning to other ways of engaging with healthcare professionals during COVID-19. According to Phillips (2020), this was amongst some of the early indications that healthcare professionals were willing to be kept updated with the latest product related information by other means instead of face-to-face interactions.

4.5.2 Preferred method of engaging virtually

It was important to gather which method of virtual engagement was mostly preferred by HCPs. The results of the most preferred data collection tool are shown in figure 4.5 below.

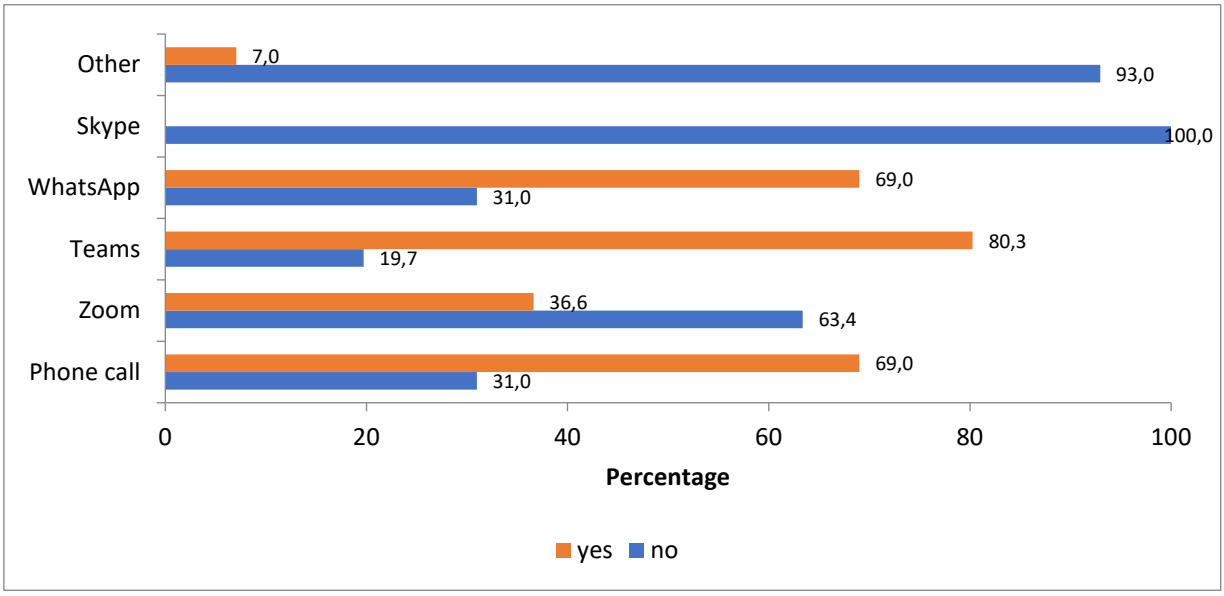

Figure 4.5: Preferred method of engagement

A significant proportion of respondents used Teams (80,3%) followed by phone call (69%) and WhatsApp (69%) respectively to communicate with healthcare professionals during lockdown. This is contrary to Court (2020) where Zoom was a preferred method of engagement.

4.5.3 Perception of virtual engagement

Results from Couchbase (2018) showed a less positive outlook towards the implementation and perception of virtual engagement by pharmaceutical representatives. It was therefore important to gather data on how the pharmaceutical representatives perceive implementation of virtual engagement. This data is crucial as companies may want to remain relevant in their detailing and marketing initiatives to fully implement other methods of engaging with their customers to remain profitable in the future.

The t-test was used whereby the average agreement score is tested against the central score of '3' to determine if it differs significantly from '3'. Where there is a significant difference (p<.05), there is a significant agreement if mean score >3 likewise there is a significant disagreement if mean score <3. Where there is not significant (p>=.05), it means that there is neither significant agreement nor significant disagreement as shown in table 4.2.

Table 4.2: Perception of virtual engagement

Statement	n	Mean (SD)	t	df	p-value
I was successful in marketing the company products using virtual engagement during lockdown	71	3.94 (1.107)	7.183	70	<.001*
It is easy to set up appointments for virtual engagement with HCPs	71	3.15 (1.338)	.976	70	.333
Virtual engagement is effective for me to interact with healthcare professionals	71	3.93 (1.073)	7.297	70	<.001*
Virtual appointments that I set up were honoured by healthcare professionals	71	3.92 (1.011)	7.622	70	<.001*
Virtual appointments generally go on for longer than face-to-face appointments	71	3.75 (1.033)	7.585	70	<.001*

Healthcare professionals are adequately engaged during virtual appointments	71	3.93 (1.080)	7.585	70	<.001*
Virtual engagement is convenient to reach healthcare professionals in remote areas	71	4.46 (1.080)	11.427	70	<.001*
Virtual engagement saves on buying the health professional lunch	71	4.39 (0.918)	12.802	70	<.001*
I have a positive attitude towards virtual engagement with healthcare professionals	71	4.14 (1.046)	9.190	70	<.001*

* Indicates significance at the 95% level

The data indicates that there is significant agreement that pharmaceutical representatives were successful in marketing using virtual engagement; virtual engagement was effective; virtual appointments generally go on for longer than face-to-face appointments; healthcare professionals are adequately engaged during virtual appointments; convenient to reach healthcare professionals in remote areas; saves on buying the health professional lunch; and that there is a positive attitude towards virtual engagement with healthcare professionals.

The data in Figure 4.6 is contrarily to a publication by Couchbase (2018) which stated a less positive outlook on the implementation and perception of virtual engagement by pharmaceutical representatives.

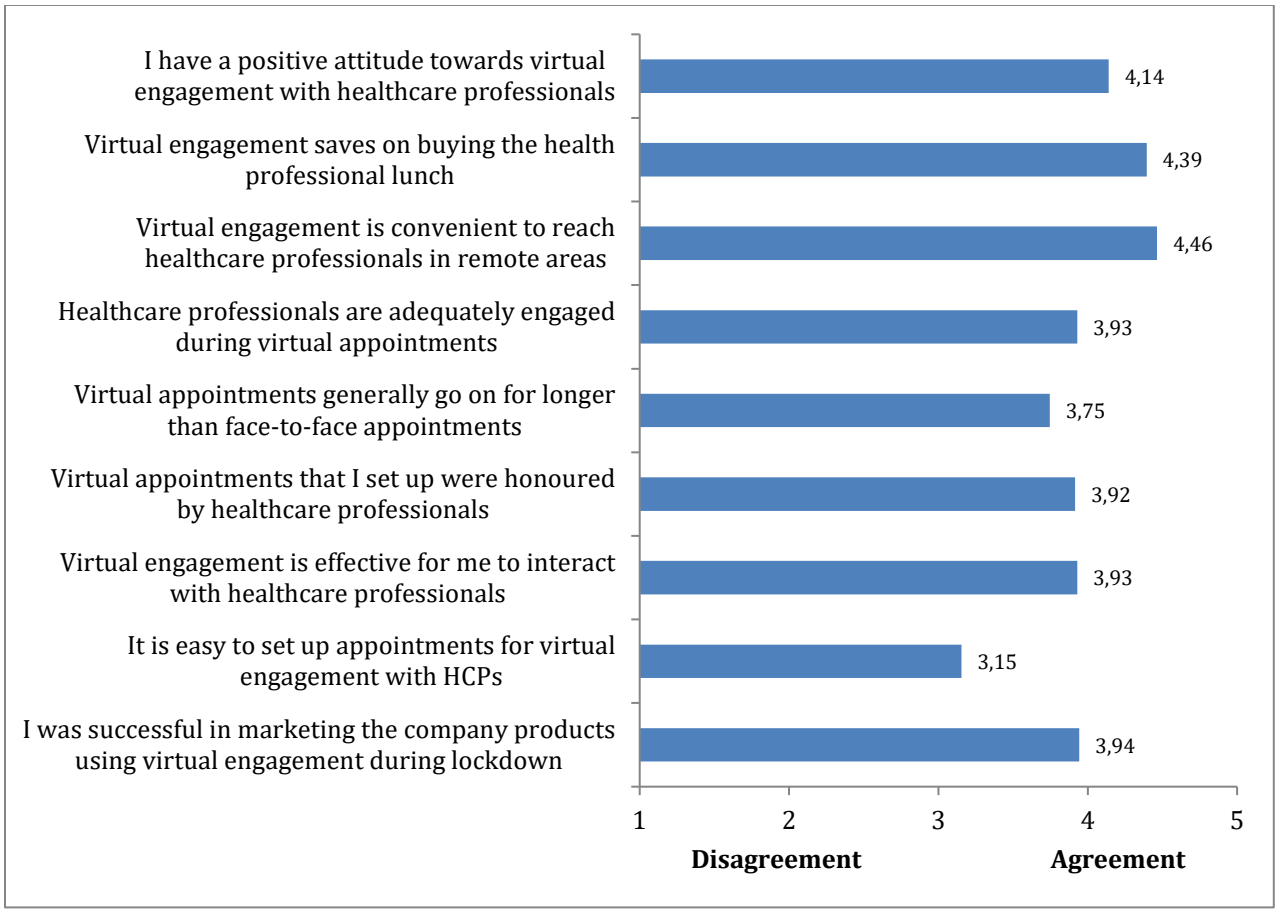

Figure 4.6: Virtual appointment as a means of conducting business.

The respondents agree that virtual engagement is a convenient method to reach HCPs in remote areas. The result agrees with a study done by Mahoney (2021). The same study also mentioned that marketing spend was re-allocated to other business units within the organisation.

The results indicate that marketing budget allocated for HCPs meals may have also been reallocated to other business activities. Court (2020) indicated that prior to lockdown pharmaceutical representatives spent less than five minutes for face-to-face detailing. The study results state that virtual engagements were generally longer during lockdown.

4.5.3 Effect of virtual engagements on marketing of products

The COVID-19 lockdown restrictions resulted in most pharmaceutical organisations shifting how they engage with HCPs and that had an effect on marketing of products as seen in Figure 4.7.

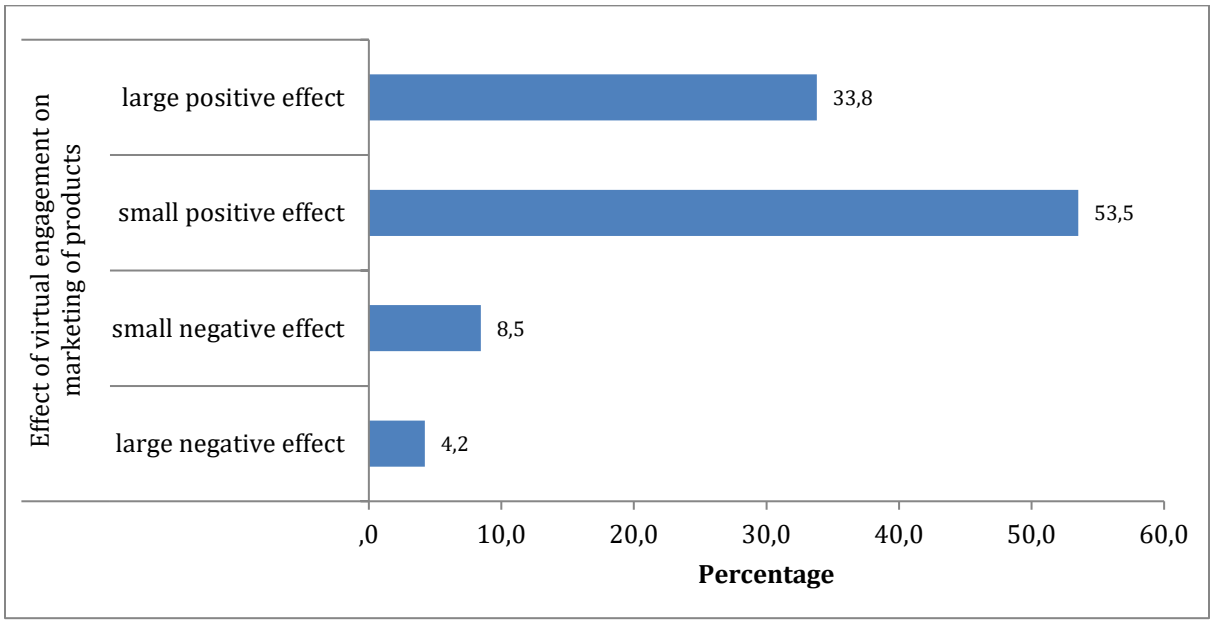

Figure 4.7: Effect of virtual engagement on marketing of products

A binomial test was used to determine if there is a significant proportion to indicate a positive or negative effect (grouped) on marketing of virtual products to healthcare professionals. The results show that there is a significant 87% of respondents that believe that virtual engagement had a positive effect on marketing products to healthcare professionals during COVID-19 restriction as seen in Table 4.3.

Table 4.3: Impact of virtual engagement

Item	Frequency (%)		n	p-value
	Negative effect	Positive effect		
Effect of virtual engagement on marketing of products	9 (13)	62 (87)	71	<.001*

* Indicates significance at the 95% level

There is a significant number 62 (87%) of pharmaceutical representatives that perceived that virtual tools have a positive effect and may be useful in marketing and detailing scientific product information to HCPs. Only nine who perceived there is a negative effect of marketing virtually. Similar results were found by Kim and Chang (2022).

4.5.4 Perception on virtual tools used to market products

Respondents were asked to rate the degree of success they perceived different forms of virtual engagement. This was done using a rating scale of 1= not at all successful to 5= extremely successful. The average score was tested against the central score of '3' to determine if there was a significant perception of success or lack thereof with each type of engagement. The results are tabulated in Table 4.4.

Table 4.4: Perception on marketing tools used to engage with HCPs

Type of engagement	n	Mean (SD)	t	df	p-value
face-to-face	71	4.58 (.647)	20.537	70	<.001*
phone call	71	2.90 (1.364)	-.609	70	.545
Zoom	71	3.23 (1.149)	1.653	70	.103
Teams	71	3.72 (1.149)	5.269	70	<.001*
WhatsApp	71	4.17 (1.149)	9.216	70	<.001*
Skype	71	1.86 (.946)	10.166	70	<.001*

* Indicates significance at the 95% level

As indicated in the above, engagement was perceived as successful by a significant portion of the respondents when using face-to-face, Teams and WhatsApp. The results further stated that Skype was not perceived as successful when engaging with HCPs.

The results from this question are useful as one of the objectives of the study was to examine which marketing tools were used by pharmaceutical representatives in successfully engaging with HCPs virtually. Furthermore, these results are adding to the knowledge base so pharmaceutical companies may be aware of which tools are generally perceived as being successful to market their products and services.

4.5.5 Challenges in engaging with HCPs

Respondent were asked an open-ended question to list the challenges that they encountered when engaging with HCPs virtually. The following comments were observed:

- Fifteen respondents stated that appointments were not honoured by the HCPs and were easily cancelled.
- Ten of the respondents indicated that connectivity and low signal was a challenge especially during load shedding.
- Over twenty respondents reported that it was a challenge to secure a convenient time for the HCPs as their priority was on attending to sick patients during the COVID-19 lockdown.
- Depending on the type of virtual tools being utilised, some were not necessarily aligned or compatible HCPs tools. This was stated as challenge by five respondents.
- Three respondents indicated that it was a challenge to assess HCPs engagement during a virtual appointment.
- One respondent reported that HCPs preferred face-to-face interactions.

4.6 CONCLUSION

This chapter presented the results of the study. The overall results indicate that pharmaceutical representatives preferred certain tools over others. These tools were an effective method of detailing and engaging with HCPs virtually. Results offer insight to pharmaceutical organisations on the use of virtual engagement. The next chapter will attend to the major conclusions and recommendations based on the results discussed above.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This Chapter will discuss the summary of the study, conclusions as well as recommendations.

The aim of this study was to examine the utilisation of virtual engagement by pharmaceutical representatives in the eThekwini Municipal during COVID-19 restrictions.

The objectives of the study were to:

- To determine the influence of COVID-19 lockdown in successfully marketing products and services by eThekwini-based pharmaceutical representatives while using virtual engagements.

- To determine whether virtual engagements are an effective method for pharmaceutical representatives in interacting with healthcare professionals.

- To examine which marketing tools are used by pharmaceutical representatives in successfully engaging with HCPs virtually within the eThekwini Municipality District.

5.2 SUMMARY OF THE THEORETICAL STUDY

Chapters two and three reviews the literature available locally and internationally on the role of pharmaceutical representatives within the pharmaceutical industry. Critical aspects such as the use and type different virtual engagement during COVID-19 when pharmaceutical representatives globally interact with healthcare providers are also examined. The research describes and justifies the research methodology and discusses the design adopted to gather and analyse data for the study being undertaken.

Included in chapter three is the research design, sampling methods, target population, data collection methods including data analysis. The conceptual foundations of quantitative research as well as sample techniques, data collection tools, and the justifications for selecting quantitative approach for this this research were discussed.

5.3 SUMMARY OF THE EMPIRICAL STUDY

The major findings are presented in alignment with the research objectives that the study sought to answer. Below is the presentation of the major findings.

5.3.1 Summary of the findings

The study found that almost 37% of respondents have been in the pharmaceutical industry for six to less than ten years. This was followed by 22% who have been working in the industry for ten to fifteen years. These findings indicate that companies are putting efforts to retain their personnel within the same organisation (Mustica, Cates and Jackson, 2018).

A significant 48 (68%) of respondents indicated that they engaged with HCPs both virtually and in person during COVID-19 lockdown. Similar studies indicated a high percentage of HCP engagement virtually (Chiplunkar, Gowda and Shivakumar, 2020; Oamen, 2021; Kim and Chang, 2022). The findings indicate that virtual engagement are effective when interacting with HCPs.

A significant 80,3% engaged virtually at most 4 times a week before COVID-19 while a significant 69% engaged virtually either 5-6 times a week or more than 8 times a week during COVID-19 lockdown. Respondents utilised Teams, WhatsApp and phone calls as tools to engage with HCPs during COVID-19. Several studies (Couchbase, 2017; Accenture, 2020; Almurisi *et al.,* 2020; Mahoney, 2021) noted an increase in virtual engagement despite HCPs faced with the demands of patient care during the pandemic.

The results of the study specifically indicated the marketing tools mostly preferred by HCPs. These tools can be strategically incorporated into organisations' CRM objectives. This will further enhance operative and collaborative strategic elements (Tigari, 2018; Kampani and Jhamb, 2020).

There was a significant agreement that respondents were successful in marketing their products using virtual engagement. They also preferred this form of engagement as being affective and their appointments were honoured by HCPs.

A significant 87% believed that virtual engagement had a positive effect on marketing their products to HCPs. Similar studies also indicated similar findings (Payne *et al.,* 2017; Kim and Chang, 2022).

5.4 REALISATION OF THE STUDY OBJECTIVES

Objective 1: To determine the influence of COVID 19 lockdown in successfully marketing products and services by eThekwini-based pharmaceutical representatives while using virtual engagements.

From literature and results of the research, eThekwini-based pharmaceutical representatives sought other means to successfully marketing their products and services. This led to a significant increase in utilisation of virtual engagement while engaging with HCPs which was critical to ensure that product information is shared with the patients.

Objective 2: To determine whether virtual engagements are an effective method for pharmaceutical representatives in interacting with healthcare professionals.

The literature review highlighted that HCPs expected companies to keep them updated with product information irrespective of COVID-19 lockdown. This gave a rise to virtual engagement as an effective method for pharmaceutical representatives in interacting with HCPs.

Objective 3: To examine which marketing tools are used by pharmaceutical representatives in successfully engaging with HCPs virtually within the eThekwini municipal district.

Literature and results from the study indicated that Teams, WhatsApp and phone call were the marketing tools effectively utilised by pharmaceutical representatives within eThekwini Municipal District to successfully engage with HCPs.

It was further observed that these marketing tools were: significantly effective means of engaging; appointments lasted longer than face-to-face appointments thus giving sufficient opportunity to make a sale; virtual appointments were honoured; they were an effective way of reaching HCPs in remote areas; and there is significant agreement that representatives have a positive attitude towards these marketing tools.

5.5 LIMITATIONS OF THE STUDY

The limitation of the study was that pharmaceutical representatives that were not part of the targeted WhatsApp group were not given an opportunity to participate in the study. It is recommended that the study is not only limited to eThekwini but expanded to other parts of the province.

5.6 RECOMMENDATIONS BASED ON THE STUDY

Based on the study these are the following recommendations:

- Pharmaceutical companies need to offer and adapt new virtual engagement model when interacting with HCPs to complement face-to-face detailing.

- Ensure proper planning prior to virtual appointments to ensure scientific and medical discussions while maximizing the longer time allocated by HCPs during these meetings.

- Pharmaceutical representatives should personalise the blended engagement interactions based on consideration of the HCPs preferences and schedules through usage of CRM.

5.7 RECOMMENDATIONS FOR FURTHER RESEARCH

More information can be gained by undertaking research post COVID-19 to ascertain the usage of virtual engagement and the acceptable marketing tools thereafter. It is recommended that future studies be undertaken for HCPs. This will gather their perception of virtual engagement post COVID-19 including their preferred marketing tools.

5.8 CONCLUDING REMARKS

All the research objectives were attained at the completion of the study. Overall, the results of the study concurred with other studies in the world and present an insight into eThekwini-based representative in utilising virtual engagements. Perception of pharmaceutical representative in utilising these marketing tools provided insight for virtual engagement post COVID-19. The results will provide insight for companies should they decide to pursue this form of engagement post COVID-19. The study may be further adopted by multinational companies that operate in other provinces within South Africa.

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- **ANNEXURE 1: CONSENT LETTER**

Full Title of the Study: Examining the utilisation of virtual engagement by eThekwini pharmaceutical representatives during COVID-19 restrictions.

Name of Researcher:

Statement of Agreement to Participate in the Research Study:

I hereby confirm that I have been informed by the researcher _____, about the nature, conduct, benefits, and risks of this study - Research Ethics Clearance Number: _____,

- I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

_____ _____ _____ _____

Full Name of Participant **Date** **Time** **Signature / Right Thumbprint**

I _____ herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

_____ _____ _____

Full Name of Researcher **Date** **Signature**

_____ _____ _____

Full Name of Witness (If applicable) **Date** **Signature**

_____ _____ _____

Full Name of Legal Guardian (If applicable) Date **Signature**

- **ANNEXURE 2: LETTER OF INFORMATION**

LETTER OF INFORMATION

Title of the Research Study: Examining the utilisation of virtual engagement by eThekwini pharmaceutical representatives during COVID-19 restrictions

Principal Investigator/s/researcher: Thabisile Gumede, Post Graduate Diploma in Marketing Management

Supervisor: Prof B Dlamini

Brief Introduction and Purpose of the Study:

The highly restricted lockdown which was implemented in March 2020 changed the way HCPs interacted with pharmaceutical representatives. Quarantine restrictions locked-down hospitals from being accessible by pharmaceutical representatives from marketing their products with HCPs to allow more focus on healthcare workers on saving lives instead of marketing and customer engagements.

HCP practice rooms, hospitals and hospital personnel have been inaccessible to many sales representatives for over a year. The number of face-to-face engagements declined considerably to more than 55% in marketing and customer engagements, therefore pushing pharmaceutical companies to re-think of other ways to effectively communicate and engage with the This has created more digital clutter across different digital medias such as Zoom, Teams and emails used by pharmaceutical companies. The purpose of this study is to examine the utilisation of virtual engagement by eThekwini pharmaceutical representatives during COVID-19 restrictions.

Dear Respondent

My name is Thabisile Gumede, I am a Master of Business Administration MBA student at Durban University of Technology. I am conducting research to examine the utilisation of virtual engagement by eThekwini pharmaceutical representatives during COVID-19 restrictions.

I would like to invite you to participate in this research study. Research is the systematic investigation into and study of materials and sources to establish facts and reach new conclusions. This research seeks to understand the influence of COVID-19 lockdown on pharmaceutical representative based at eThekwini in using virtual engagements to interact with healthcare professionals and how that has impacted pharmaceutical representatives in meeting their key performance indicators.

I would appreciate your permission to conduct a questionnaire as part of this research study. This should take approximately 10 minutes to complete the questionnaire that will be shared via a link onto the WhatsApp group that you are a member of. You will be required to participate in a questionnaire that asks for information such as your gender, ethnic group, and number of years in the pharmaceutical industry. In addition, the questionnaire will ask you to respond to questions such as your utilisation of virtual

engagement when interacting with your customers during the COVID-19 lockdown that took place in South Africa.

Please note that the study has no unpredictable risks and is fully voluntary. Therefore, if you are uncomfortable with answering any of the questions, you may not proceed with the interview.

You may withdraw from the study at any time for any reason, including non-compliance, illness, or adverse effects. Your removal from the study will have no negative implications.

Your responses on the interviews question will be kept confidential, and data from this study will only be reported in aggregate. Your information will be encrypted and kept private. The Durban University of Technology will protect confidentiality and anonymity. All information gathered will be stored in a secure location for five years before being destroyed. Under tight conditions, only authorised individuals will have access to the data.

Persons to contact in the Event of Any Problems or Queries: The researcher Thabisile Gumede on 073 403 7865 or thabisilesh@gmail.com or my supervisor Prof B Dlamini on dlaminibi@dut.ac.za or the Institutional Research Ethics Administrator on 031 373 2375. Complaints can be reported to the Acting Director: Research and Postgraduate Support on researchdirector@dut.ac.za.

Thank you for your time and participation.

Yours sincerely,

Thabisile Gumede (researcher)

- **ANNEXURE 2 QUESTIONNAIRE**

Good day,

I kindly request your participation in this industry survey about virtual engagement. This survey is for research purposes only; it is voluntary and for an MBA dissertation with Durban University of Technology Business School. The aim is to investigate aspects of virtual engagement of pharmaceutical representatives with healthcare professionals.

The survey will take approximately 7 minutes to complete.

INSTRUCTIONS TO RESPONDENTS

1. For each question, select the ONE response option that best applies to you

2. Please answer ALL questions – do not leave any blank.

Section A: Demographic Characteristics

1. What is your gender?

Male	Female

2. What is your tenure (in years) within the pharmaceutical sales industry?

< 2	2 - <6	6 - <10	10 - 15	>15

3. Indicate your highest level of education.

No formal of education/ some schooling	Matric	Certificate	Undergraduate Degree/Diploma	Postgraduate Degree/Diploma

4. How many companies have you worked for in the last 3 years?
_____companies.

Section B: Virtual engagement

5. <u>During lockdown</u>, how did you engage with healthcare professionals?

No form of engagement	In person only	All engagement were virtual	A combination of virtual and in-person engagement

<u>IF YOU USED ANY FORM OF VIRTUAL ENGAGEMENT</u>

6. How often, on average, did you use virtual tools in a week to engage with Healthcare Providers **BEFORE** COVID-19 lockdown?

Never	1-2 times	3-4 times	5-6 times	7-8 times	>8 times

7. What method(s) of virtual engagement did you use to communicate with Healthcare Professionals **DURING** COVID-19 (Tick all that apply)

7.1	Phone call	
7.2	Zoom	
7.3	Teams	
7.4	WhatsApp	
7.5	Skype	
7.6	Other	

If you selected OTHER, please specify the type of engagement _____

8. How often, on average, did you use virtual engagement in a week **DURING** lockdown to interact with healthcare professional?

Never	1-2 times per week	3-4 times per week	5-6 times per week	7-8 times per week	>8 times per week

9. Indicate your level of agreement with the following statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
9.1 I was successful in marketing the company products using virtual engagement during lockdown.					
9.2 It is easy to set up appointments for virtual engagement with HCPs.					
9.3 Virtual engagement is effective for me to interact with healthcare professionals					
9.4 Virtual appointments that I set up were honoured by healthcare professionals					
9.5 Virtual appointments generally go on for longer than face-to-face appointments					
9.6 Healthcare professionals are adequately engaged during virtual appointments					
9.7 Virtual engagement is convenient to reach healthcare professionals in remote areas					
9.8 Virtual engagement saves on buying the health professional lunch					
9.10 I have a positive attitude towards virtual engagement with healthcare professionals					

10. Indicate the effect that **virtual engagement during COVID-19** lockdown had on your marketing of products and services with healthcare professionals.

Large negative effect	Small negative effect	No effect	Small positive effect	Large positive effect

11. Indicate which ONE of the following methods of virtual engagement is most preferred by healthcare professionals, in your opinion.

None: they prefer face-to-face	Phone call	Zoom	Teams	WhatsApp	Skype	Other

If you selected OTHER, please specify the type of engagement _____

12. Rate (from 1 = not at all successful to 5 = extremely successful) how successful you perceive each of the following engagement methods to be when marketing products and services to healthcare professionals.

	Not at all successful 1	2	3	4	Extremely successful 5
12.1 face-to-face					
12.2 phone call					
12.3 Zoom					
12.4 Teams					
12.5 WhatsApp					
12.6 Skype					
12.7 Other					

If you selected OTHER, please specify the type of engagement _____

13. List any challenges that you encounter in engaging virtually with healthcare professionals.

_____

_____

- **ANNEXURE 3: GATEKEEPER PERMISSION**

08 June 2023

Re: Gatekeepers Permission (Examining the utilisation of virtual engagement by eThekwini pharmaceutical representatives during COVID-19 restrictions)

Dear Thabisile Gumede

Thank you for considering members of the eThekwini pharmaceutical representatives on the official WhatsApp group to participate for your Durban University of Technology MBA research. It is with great pleasure to inform you that permission and access to all our pharmaceutical representatives on the WhatsApp group has been granted.

Wishing you the best in your research.

Regards,

Mrs Ingrid Sweeney

Founder and Administrator

eThekwini Pharmaceutical Representatives' Group

- **ANNEXURE 4: ETHICAL CLEARANCE**

Institutional Research Ethics Committee
Research and Postgraduate Support Directorate
2nd Floor, Berwyn Court
Gate 1, Steve Biko Campus
Durban University of Technology

P O Box 1334, Durban, South Africa, 4001

Tel: 031 373 2375
Email: lavishad@dut.ac.za
http://www.dut.ac.za/research/institutional_research_ethics

www.dut.ac.za

12 June 2023

Mrs T P Gumede
25 Herrwood Drive
Umhlanga
KZN

Dear Mrs Gumede

Examining the utilisation of virtual engagement by eThekwini pharmaceutical representatives during COVID-19 restrictions
Ethics Clearance Number: IREC 085/23

The DUT-Institutional Research Ethics Committee acknowledges receipt of your notification regarding the piloting of your data collection tool.

Kindly ensure that participants used for the pilot study are not part of the main study.

In addition, the DUT-IREC acknowledges receipt of your gatekeeper permission letter.

Please note that FULL APPROVAL is granted to your research proposal. You may proceed with data collection.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the DUT-IREC according to the DUT-IREC SOP's.

Please note that any deviations from the approved proposal require the approval of the DUT-IREC as outlined in the DUT-IREC SOP's.

It is compulsory for a student or researcher to apply for recertification on an annual basis. The failure to do so will result in withdrawal of ethics clearance. It is the responsibility of the researcher and the supervisor to apply for recertification.

Please note that you are required to submit a Notification of Completion of Study form together with an abstract to the DUT-IREC office on completion of your study.

Yours Sincerely

Prof J K Adam
Chairperson: DUT-IREC

- **ANNEXURE 5: LANGUAGE EDITORS' CLEARANCE LETTER**

The Dissertation Design Master

Phone: +27780248617

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Web: https://thesis-reports-proof-reading-and-editing.business.site/

This is to confirm that the thesis entitled

EXAMINING THE UTILISATION OF VIRTUAL ENGAGEMENT BY ETHEKWINI PHARMACEUTICAL REPRESENTATIVES DURING COVID-19 RESTRICTIONS

Authored by

THABISILE GUMEDE

STUDENT NUMBER: 20202361

was edited according to Durban University of Technology's specifications. The student received a detailed report with suggested changes. The thesis will be fit for submission when the student attends to all suggested changes (**to be reviewed by the supervisor**) and obtains permission to submit from the supervisor.

Report prepared by:

Elizabeth Mnyandu

Signature over printed name

Date: 26 June 2023

Certificate in Copy-editing
Qualification

Contact Number
+27780248617

https://thesis-reports-proof-reading-and-editing.business.site/

- **ANNEXURE 6: TURNITIN REPORT**

EXAMINING THE UTILISATION OF VIRTUAL ENGAGEMENT BY ETHEKWINI PHARMACEUTICAL REPRESENTATIVES DURING COVID-19 RESTRICTIONS

ORIGINALITY REPORT

9%	6%	3%	5%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to Mancosa Student Paper	1%
2	ir.dut.ac.za Internet Source	1%
3	Submitted to Durban University of Technology Student Paper	1%
4	hdl.handle.net Internet Source	<1%
5	researchspace.ukzn.ac.za Internet Source	<1%
6	ulspace.ul.ac.za Internet Source	<1%
7	Submitted to University of Hull Student Paper	<1%
8	core.ac.uk Internet Source	<1%