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Effects of digitalisation on pharmaceutical sales management in South Africa

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2515201

A research article submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Business Administration

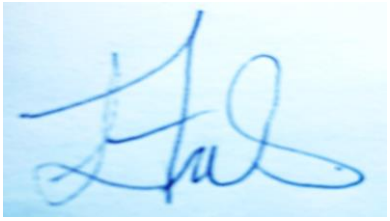
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Supervisor: Dr Emmanuel Quaye

DECLARATION

I, Ludwig Fuls, declare that this research article is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration in the Graduate School of Business Administration, University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.



Ludwig Fuls

Signed at Pretoria on the 23rd day of February 2023

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ABSTRACT

This research qualitatively investigates the effects of digitalisation on pharmaceutical sales management in South Africa, which relates to the research problem statement of slow digital uptake in the pharmaceutical industry when looking at sales force management.

To prove the research problem statement, three research questions was posed. The first research question is “How can digitalisation increase efficiency for the pharmaceutical sales force?”. The results indicated that the customers in the pharmaceutical industry have already started using technological system to increase their efficiency with minimal influence from the sales force which is can further increase efficiencies and speed.

The second research question is “What is required for digitalisation to be successful within the pharmaceutical industry?”. The first requirement is investment from the organisation into digital technologies, the second requirement is in investing into the development of employees in digital technologies, the third requirement being the adaptation of the sales team to incorporate these digital platforms into their value proposition for the customer.

The third research question is “How would digitalisation change the current landscape within the pharmaceutical industry?”, the results indicate that the role of the sales team would evolve to a business partner which would be essential to remain competitive.

The key takeaways from that the current incremental implementation of digitalisation are due to the personal nature of the pharmaceutical industry and the unvalidated success of digital components in the industry. The managerial implications being upskilling of the employees which influence the stakeholders in the pharmaceutical industry and management of the digital technologies which strengthens the impact of upskilling.

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1. INTRODUCTION

Research and development within the pharmaceutical industry has received considerable attention regarding digitalisation especially during and post the Covid-19 pandemic (Servais et al., 2021). Research and development have been the cornerstone for the growth of the industry into the major contributor it is today within the South African economy. Although a lot of inputs from digitization has been implemented into research and development, the rest of the industry has seen a slow digital transformation (Sandle T., 2019). The effects became evident with the logistical constraints placed on the pharmaceutical companies during Covid-19 pandemic. For further growth in the pharmaceutical sector, digitization will have to be implemented across all divisions of the sector and finally digitalisation to increase efficacy and profitability (Hole et al., 2021). Sunjay Kumar (2019) highlights this problem in his study by providing the stages of the pharmaceutical industry evolution where importance is given to the research and development section of the industry. Only 11% of medical practitioners prefer in-person consultations from medical science liaisons which makes the digital accessibility of the healthcare practitioner that much more important (Sunjay Kumar., 2019). Wankhede et al. (2018) found that digitalisation is present for sales force management in the pharmaceutical industry however the approach was data centric and not customer centric. Data indicates that the pharmaceutical sales force experience the sales force automation systems differently as their managers capabilities plays a major role in their experience (Wankhede et al., 2018).

1.1. CONTEXTUALISING THE PROBLEM

Pharmaceutical companies have various divisions within them that requires attention such as research and development, marketing, finance, operations, logistics, imports, and sales. The focus has been on research and development for the past few decades to procure and develop ground-breaking and life-saving medication which requires a lot of resources (Servais et al., 2021). Looking past the research and development, the expenditure of pharmaceutical companies commonly known as “generics” companies has been to keep their cost down with logistics (Terblanche & Niemann,

2021) and operations while increasing marketing spend for brand exposure. For this reason, the digitalisation of sales force management has been slow due to an inability to invest. Data analysis will be a key to success within this sector and effective management of the sales force could be the key to success (Terblanche & Niemann, 2021). Implementation of a digital platform for the sales force to access their performances to date, information about the molecules and competitors, data analysis and trends for the sales force to effectively target their customer base would be greatly beneficial to the sales force to make them more confident and competent in front of their customer.

The second factor influencing the slow transformation of digitalisation in the pharmaceutical sales management is the technical abilities of the management (Khoele & Daya, 2014). This can be resolved through upskilling but would require cooperation from management. The leadership shown by management by upskilling themselves to better and more effectively manage their teams is essential to this factor (Khoele & Daya, 2014).

1.2. JUSTIFYING PROBLEM STATEMENT

The rationale behind the problem statement comes from the Covid-19 pandemic, which has shown the pharmaceutical industry that the end user has access to information and knowledge due to their internet connection and discussions on the web on these topics (Furtner et al., 2021). Although the information may be misrepresented, it is the experts within the industry that needs to shed light on these facts which would make the use of information more critical.

Furthermore, big data analysis is fast becoming a commodity within the pharmaceutical industry whereby the company can acquire market share data, sales data, sales force efficacy (SFEs), market information, new research, and customer analytics (Shahbaz et al., 2021). Looking at all the data and information mentioned above, it has become increasingly difficult for managers to keep up with the demand from their sales force on data and information. Through the implementation of digital platforms from where the sales force can access this information daily, the manager would be able to focus on their roles of empowering and guiding their sales force to meet the required goals (Shahbaz et al., 2021).

For this study digital transformation and digitalisation would be included in the research together with sales force management and digital management platforms. The reason for the broader approach to the sales force instead of narrowing in on the pharmaceutical industry is due to the limited research done in the pharmaceutical industry. The scope of my research will look across different industries which makes my scope very important and remaining to the point of management and digitalisation is critical. Another limitation to this study is the use of company information and as such various participants could not enter this study.

1.2.1. RESEARCH OBJECTIVES

The aim of this study is to determine the use of digitalisation for more effective management of the pharmaceutical sales force. The objective is to interview individuals within the different divisions within pharmaceuticals to get a holistic view on the effect that digitalisation would have on the industry.

1.2.2. RESEARCH QUESTIONS

The problem statement for this study is the slow uptake of digital transformation in a managerial position throughout the pharmaceutical sales industry. The research questions to guide the research in determining the increased efficiency of the management of the pharmaceutical sales force is:

- How can digitalisation increase efficiency for the pharmaceutical sales force?
- What is required for digitalisation to be successful within the pharmaceutical industry?
- How would digitalisation change the current landscape within the pharmaceutical industry?

1.2.3. DELIMITATIONS AND ASSUMPTIONS OF THE STUDY

The sample for this study is from the pharmaceutical industry in the various positions to determine the research objective. The use of participants from the pharmaceutical industry in the relevant positions alone will be used and not experts from outside the pharmaceutical industry as the study investigates the effect of digitalisation within the

pharmaceutical industry, however from the sample several participants have worked with the digital aspects of their role and can comment as experts due to seeing the effect of digital system first hand.

The study will be conducted qualitatively which allow for different conversations and insights as per the understanding of the participants. The researcher should however be cautious in the interviews as to not influence the participants with their insights into the effects of digitalisation but to rather guide the conversation as to collect the necessary data.

To prevent personal sample bias with the research, the expert opinion from the study would select candidates according to their positions and the expert's experience with the participants and their knowledge of digitalisation.

Delimitations of the research include not focusing on a specific digital platform as the pharmaceutical industry has several platforms to increase efficiency within the different divisions. Further delimitations of the study are that regulatory limitations such as the marketing code, the ethics code and the pharmacy act will not be discussed as these regulations would not focus on the research objective.

1.2.4. CONTRIBUTIONS OF THE STUDY

The benefit of this study is:

- That insight can be gained from the extent to which the pharmaceutical industry has been digitised and the understanding of digitalisation within the industry.
- The responses of digital systems and platforms for the pharmaceutical industry would be provided looking at employee level and not at customer level.
- Insights will be gained as to how to implement digital systems and platforms in the industry and the practical knowledge as to how success can be obtained in this endeavour.
- The expected conclusions will provide significant insights into the future of the pharmaceutical industry and the management of the sales team with digital technologies to increase efficiency.

2. LITERATURE REVIEW

The changes that have been excelled by the Covid-19 pandemic in the pharmaceutical industry has become apparent, and although several adaptations were made during this time from a management perspective, these changes were only temporary and unsustainable. For this literature overview, literature will be drawn on digitalisation, management, and the pharmaceutical industry to properly define key terms and discuss key opinions around the effect of digitalisation on sales force management.

2.1. CURRENT CONDITIONS IN THE PHARMACEUTICAL INDUSTRY

Finelli and Narasimhan (2020) highlights that the pharmaceutical industry is very data driven. Furtner et al. (2022) mentions that the pharmaceutical industry in transitioning to a data-driven and digital model which is patient-centric. Fatti (2013) explains the the collections and analysis of data and transforming it into information and conveying it as competitive intelligence (CI). Digitalisation has become crucial in all industries as organisations can increase performance through greater production, competitive expertise, better forecasting, planning and business feasibility (Faraj, 2021). Finelli and Narasimhan (2020) elaborates that improvements are being made to techniques and application in drug development but that more opportunities can be exploited when it comes to digitisation.

Furtner et al. (2022) discusses the role of the sales force which requires a change from promotional engagements to a more scientific engagement with the healthcare practitioners. These changes were necessitated by the Covid-19 pandemic that had limited the interactions between the medical science liaison and the healthcare practitioners (Furtner et al., 2022). Shahbaz et al. (2021) looks at the current digitalisation within the pharmaceutical industry and the tools that is being used to measure the and manage the medical sales liaison. The salesforce is being measured by salesforce automation system to measure customer relationship management and performance (Shahbaz et al., 2021). “An SFA system provides information regarding customer interactions, inventory control, sales forecasting, sales, communication history, and pipeline opportunities to efficiently achieve day-to-day goals” (Shahbaz et al., 2021). Shahbaz et al. (2021) however found that salesforce automation systems

do not meet the requirements of the medical sales liaison due to the inability of these systems to analyse big data and not using credible sources for data. The changes to the sales process include increased activities through webinars, phone calls, virtual collaborations, and online teachings by the medical science liaisons (Furtner et al., 2022). Furtner et al. (2022) however highlights the gaps with these changes as the inability to have interactive engagements with the healthcare practitioners, the inability to attain insights from these virtual interactions and the healthcare practitioners becoming fatigued by this rapid shift towards a virtual platform.

2.2. DEFINING DIGITALISATION

Stalmachova et al. (2022) describes digitisation as the action of converting an analogue process into a digital process. Fahndrich (2022) explains digitisation as a complex procedure of forming digital information from an analogue source making the information “programmable, addressable, traceable and communicable”. Knudsen (2020) refers to digitisation as a more incomplete conversion then digitalisation. Stalmachova et al. (2022) further elaborates that the changes in technology have made data analysis through a digital platform more efficient which has led to fundamental changes in business processes.

Stalmachova et al. (2022) defines these changes in the business framework to produce new revenue streams and valuable opportunities as digitalisation. Hagberg et al. (2016) elaborates further that digitalisation refers to transformation and creation of new value. Valendue and Vendramin (2017) cautions that digitalisation is not a revolution, but a gradual implementation of digital innovations in society and the economy. Devereux and Vella (2018) speak to digitalisation of products and services as bridging the gap between people and the product or service. Ringenson et al. (2018) explains that digitalisation is about the use of digital communication and media to transform social life. Gobble (2018) states that “digitalization refers to the use of digital technology, and probably digitized information, to create and harvest value in new ways”.

From the definitions mentioned above, it becomes clear that the outcome of digitalisation is value-creation and the restructuring of the existing business model to

attain this goal. For digitalisation to be attained, the process of digital transformation needs to be addressed. Mergel et al. (2019) has identified three elements that is required for digital transformation namely altering service delivery by using technology, modifying organisational culture using technology, and setting value creation as the goal. Two frameworks can be compared when looking at the impact of technology on the organisational structure namely Fountain's technology enactment framework and Dunleavy et al.'s digital governance approach. Fountain (2004) states that technology is different in an organisation and transformation is dependent on the organisation and the individuals within the organisation. Fountain (2004) differentiates between objective technologies and enacted technologies. Objective technologies are the implementation of innovation technologies to create a more efficient work environment whereas enacted technologies are the use of these technologies and the perceptions of the workforce of these technologies (Fountain, 2004). Dunleavy et al. (2006) however argues that technology itself does not change the organisation but rather the use and perceptions of the technology from individuals within the organisation leads to organisational change.

2.3. INTEGRATION OF DIGITALISATION WITH MANAGEMENT

Konttila et al. (2019) further found several obstacles to digitalisation in the healthcare sector namely obstructive stakeholders and organisational structures and the unidentified competencies required by healthcare practitioners for effective digitalisation. Konttila et al. (2019) highlights competence in digitalisation as part of human capital and a skill that requires constant education. Nell et al. (2021) cautions that digitalisation could lead to decentralisation whereby the manager would no longer be required as they would be replaced by platforms which empower the employee and assist them in decision-making. Digitisation would lead to changes in job resources which in turn would lead to increased job demand (Zeike et al., 2019). Zeike et al. (2019) further explains that this would change the role of the manager to more pressured, cognitively complex and coordinated decision-making. Nell et al. (2021) found that top management expects digitalisation to make their decision-making more efficient and improve reaction times due to improved information. The opposite could be true as digitalisation would lead to improved decision-making and more data on

customers, employees, and rivals which in turn would assist the management to be more efficient (Nell et al., 2021).

Zeike et al. (2019) conducted a study to assess the effect of digitalisation on the well-being of the managers and found that due to increased decision-making associated with digitalisation, managers could experience choice overload which could affect the managers phycological well-being. Nell et al. (2021) does warn on several 'traps' associated with digitalisation such as negating intuition and human judgement due to overreliance on data, only choosing big data projects which doesn't give the whole picture, slow decision making due to overcomplicating decision making from data analysis and relying on data for innovation and discouraging employee innovation. Zeike et al. (2019) mentions that for digital transformation, managers would need to lead the change which increases the strain on them as they would needs to stay informed on new technologies and make difficult decisions. Konttila et al. (2019) investigated the application of digitalisation on the healthcare sector and found technologies for information and communication are becoming more established in the healthcare sector. These digitalisation elements include "the development and provision of mobile health (mHealth), health information technology (IT), wearable devices, telehealth and telemedicine, health portals and personalised medicine" (Konttila et al., 2019). Further obstacles include the willingness of the healthcare practitioners to further educate themselves in digital technologies and support will be required for the digital integration in the healthcare sector (Konttila et al., 2019). Nell et al. (2021) however cautions managers to not use this centralised decision-making to micromanage their employees as this would lead to conflict with the employees which would negate the improved speed associated with digitalisation.

Digitisation is the process of adding value to the market and creating revenue using digital technologies (Hole et al., 2021). This requires the process of digital transformation which is the transitioning from analogue to digital for more efficient analysis and use of data and information (Fahndrich, J., 2022). There are several advantages to digital transformation including more efficient decision making and better competitor and market information to attain a competitive advantage (Nell et al., 2021). From the literature overview it becomes clear that digital transformation is required within the pharmaceutical industry not only for the medical science liaison,

the pharmaceutical companies, the customer but also for the healthcare practitioners. The current use of digital technology is overbearing for the healthcare practitioners and more efficient communication resources needs to be used. The demand in the industry is shifting from a commercial focus to an information and patient centric focus which will change the role of the management and medical science liaison in the industry (Furtner et al., 2022). More effective sales force automation systems will be required for the sales force and for managers, especially to prevent the obstructions of digitalisation on managers such as affecting their psychological well-being and the increased pressures that accompany digital transformation (Zeike et al., 2019). This study will investigate the effects of digitalisation on the management of the sales force.

2.4. THEORETICAL BACKGROUND

Kane (2019) expresses the importance of the workforce's digital literacy in the implementation of digital transformation, while Manyika et al. (2017) stresses that existing literature neglect the obstacles of how digital transformation is addressed by the workforce. Management faces several obstacles with the introduction of technology and the associated digital transformation (Abedin & Kozanoglu, 2021). Dery et al. (2017) emphasises the need to increase employee digital literacy and reconceptualising the experience of the employee as the most considerable obstacle for digital transformation and revolution within organisations.

The investments in digital systems and technologies would be beneficial for an organisation to reach the goal set if the digital skills are entrenched within the employees (Kane et al., 2019). Abedin & Kozanoglu (2021) elaborated that the positives that come from digital transformation cannot merely be measured by data and digital factors, but in developed skills and capabilities while calculating and adapting to the system management and human factors. Directing the workforce through the disruption and stages of change, the organisation should employ an employee support function as well as a digital transformation capability for the employees to increase digital literacy (Eden et al. 2019). Abedin et al (2012) refers to the fact that the digital literacy of the workforce will improve, and the employees will be more effective as they use digital technologies. The major obstacle for companies is to shift focus away from competitive advantage innovations, trends within

technology and customer behaviour around the new technologies; and rather on the capacity, the mentality and culture within the company (Murawski & Bick, 2016).

Vyas et al. (2017) introduced a theory called “interaction-centred approach” which is an extension of the organisational affordance theory, which is essence that arises in a practical setting between the digital platform and the user that is seen as a scientific relationship. Orlikowski (2000) recommends that different functions of technology can emerge as the employee uses the system through his theory on technologies-in-practice that looks at the companies setting. Technology use gives the user a setting for work and that of collaboration which is the reason for the development of these affordances, with digital technology being advanced and practical (Anderson & Robey, 2017). Ellison et al. (2015) implemented the organisational affordances on social media platforms and expresses how knowledge was distributed through interactions with other users on social media platforms. Vyas et al. (2017) established three degrees of explaining affordances which is the single user where the relationship between the user and the technology is investigated, the organisational stage where the relationship between the technology and many within the organisation is explored and the society stage where the technologies of many interacts with the technologies of other groups.

Du et al. (2019) mentions that more than one affordance can be benefited from by increasing the workforce’s digital literacy and continued use of digital platforms. Specific effects or actions can become apparent from the interactions between a digital system and the organisation or single user (Vyas et al., 2017). Abedin & Kozanoglu (2021) elaborates that by upskilling the employees the organisation could win the “hearts and minds” of the workforce which would lead to more devotion from the workforce to exceed their competitors.

2.5. PROPOSITION DEVELOPMENT

Reviewing the literature gives a better understanding of the current conditions in the pharmaceutical industry both internationally and locally, which provides a standard of where the industry is with regards to digitalisation. Further reviewing the literature provides the effects that the implementation of these digital technologies would have on management. There are several ‘traps’ that needs to be considered when

implementing digital technologies such as management mental health and over-reliance on data analysis. The models for implementing digitalisation would provide the researcher with a background of what successful implementation of digitalisation would entail and provides good measurements of how effectively the end-user is utilising and exploiting the technologies available to them. The propositions for this study is stated below:

2.5.1. PROPOSITION 1

The pharmaceutical industry in South Africa is exploiting some of the aspects of digitalisation such as big data analysis and SFE's but due to regulations and legislation within the pharmaceutical industry is unable to fully incorporate digitalisation.

2.5.2. PROPOSITION 2

Digital technologies do not translate fully to the customer and sales force in the pharmaceutical industry due to inability to fully digitalise all the departments of the business.

3. METHODOLOGY

3.1. RESEARH PLAN, APPROACH AND METHOD

The project data was be collected from individuals within the pharmaceutical industry using interviews (Marshall et al., 2013). The data that was collected through an interview from which a transcript was be formed (Britten, N., 1995). This allowed the data obtained from the interviews to be grouped thematically and discussed accordingly (Hopf, C., 2004).

The participants were selected by the expert on digitalisation within the organisation to avoid personal sample bias, known as snowball sampling (Oppong, S. H., 2013). This allows the expert opinion to be most credible source for grouping the individuals into experience levels through their assistance to the participants daily (Marshall, M. N., 1996).

3.2. RESEARCH METHOD

A qualitative research method was be used for this project. The reason for qualitative research is in the field of healthcare that is being studied and the project is based on the experience and opinions of the subjects which is difficult to quantify (Britten, N., 1995). The assumption to this project is that the participants have a basic knowledge of what digitalisation is and how it is being used within their organisation, the responses from the participants had to be honest and truthful, the participants doesn't have a bias to digitalisation and the researcher doesn't influence the participants' responses.

3.3. METHODOLOGICAL APPROACH

The data was collected through one-on-one interviews with the subjects. This approach is suitable for this study as it gives the opinion and experience of the participant on digitalisation (Peters & Halcomb, 2015). A qualitative research approach has the advantages of being flexible as the researcher can adapt the interviews as patterns emerge, also the research occurs in a natural setting which could lead to meaningful insights and new ideas coming to light (Rabionet, S. E., 2011). The disadvantage of qualitative research is that the research is subjective and could be unreliable if the participant isn't honest in answering the interview questions, the population size is limited as it is time intensive and labour intensive (Marshall et al., 2013).

3.4. POPULATION

The population for this project was from the pharmaceutical industry, although the industry does consist of many divisions (Drews, J., 1989). This meant that information needed to be attained from the different divisions which would include commercial sales force, doctor detailing sales force, hospital sales force and the management on different levels and positions. The sampling method used, was intensity sampling as different views of the problem statement was researched due to the industry divisions (Renjith et al., 2021). Within each of the divisions, three candidates were selected which brought the total number of participants to twelve. The number of participants

was selected based on the minimum of twelve participants that is required for qualitative research and even distribution of the sample population (Fainshmidt et al., 2020). The participants are arranged according to their experience levels on digitalisation to ensure that the population is evenly spread (Renjith et al., 2021). The experience levels ranged from rookie for less than a year, intermediate as between one- and three-years' experience and senior as more than three years' experience. The table below shows a summary of the participants for this study broadly defined by their position and not their names due to confidentiality:

Table 1. ***Summary of participants***

Participant number	Participant description
# 1	Rookie commercial representative
# 2	Intermediate commercial representative
# 3	Senior commercial representative
# 4	Rookie doctor representative
# 5	Intermediate doctor representative
# 6	Senior doctor representative
# 7	Rookie hospital representative
# 8	Intermediate hospital representative
# 9	Senior hospital representative
# 10	Rookie manager
# 11	Intermediate manager

# 12	Senior manager

3.5. ETHICAL CONSIDERATIONS

Ethical considerations for this study are important due to the proximity to the healthcare sector. Data confidentiality is extremely important within the healthcare sector and for this reason the respondent personal information and their associated organisational information will not be disclosed (Arifin, S. R. M., 2018). The only parameter that is disclosed from the respondents is their experience and position which is an important measurement for data collection spread. All the data obtained, whether in audio or text format, will be safely stored on an external storage device which is password protected under the supervision of the researcher (Arifin, S. R. M., 2018). Lastly, all participants were required to give informed consent for the use of the data obtained in the interviews apart from personal information and organisational information (Arifin, S. R. M., 2018).

4. DATA ANALYSIS

Content analysis was done on the data which consists of subjective interpretation of content and identifying themes in the data (Vaismoradi et al., 2013). Content analysis was selected due to the open-ended questions of the study and the varying levels of understanding on the different aspects of digitalisation of the respondents (Kim & So, 2022). As mentioned in the research plan, the interviews were transcribed for all twelve respondents which makes the content analysis easier to analyse the data.

Thematic analysis was be done after content analysis to identify and analyse patterns in the data (Xu & Zammit, 2020). Thematic analysis allows the researcher to discuss the findings in a structured format and allocate a weighting to the themes found in the data (Liebenberg et al., 2020). Further analysis on outlier responses were addressed to gain further insight into certain gaps that exist within the study or the market.

After conclusion of thematics analysis, all the information was summarised into a table for all twelve participants. This allowed the researcher to calculate the differing

responses from each other as can be seen in the results section of the study (Xu & Zammit, 2020). A percentage allocation was given to each thematic which meant the discussion on the opposing views could be discussed and gave the results significance.

5. PRESENTATION OF RESULTS

The results from the interviews on the twelve individuals were divided into three sections as provided by thematic done on the interviews. The first section is the general information from the participant which include the stance on digitalisation, the experience with digital system, the conceptualisation of the terms digitization and digitalisation. The second section is around the obstacles to digitalisation which provided themes of upskilling that is required, the reluctancy to changing systems and processes, the effect it will have on the sales environment between the customer and the sales force and lastly, the obstacle from the organisation whether it be financial, limited resources through data availability and analytical systems. The third section focuses on the topic of the study which is on the changes and effects that digitalisation will have on the pharmaceutical sales environment with thematic of changes in the organisation, changes to the customer, changes to the sales force and then strategic alignment of the participant whether it be to their current position or the holistic approach that is intended through digitalisation.

5.1. CONCEPTUALISATION OF DIGITISATION AND DIGITALISATION

The analysis of the interpretation of digitisation and digitalisation yielded the results that eleven out of the twelve participants could conceptualise digitisation and give a brief example providing that 91,6% of the participants understood digitisation. On the other hand, digitalisation is not well understood or described by the participants with a total of four out of the twelve participants conceptualising and explaining digitalisation providing a 33% of participants that understood digitalisation. Further analysis from the interviews provided me with a stance of the participants to digitalisation in the organisation with only three out the twelve participants against digitalisation which

provides a 75% of participants that is pro-digitalisation. Below are some direct quotes from participants on digitisation and digitalisation:

“So, digitization is the move from paper-based stuff, whether it's marketing or whatever it may be to electronic devices to be able to get the same content. Digitalization, I think is the move from what we would perceive to be our traditional mediums of advertising, like magazines and, um, I don’t know, tv, let's say to something like a social media, which is a more fast paced.” (Participant 3).

“In other words, moving away from paper sharing of information, instead of via paper trail or hand to hand advertising, get reaching out to the consumer or to the customer is to reach them digitally via either the devices, via television or whatever.” (Participant 6).

“I don't know. It's difficult to define it because I don't really know what the word means. But if I think of digitalisation, I think of technology. Okay. And moving everything from paper onto technology, computers, the cloud, what you name it. So, making everything available is well, making it paperless onto the internet.” (Participant 9).

5.2. OBSTACLES TO THE IMPLEMENTATION OF DIGITALISATION

The next section of thematics which provides obstacles, first of which is upskilling from which seven out of twelve participants found that upskilling would be necessary for the entire organisation which include management and the sales force which results in 58% of participants that believe the entire organisation needs to be upskilled. Three out of the twelve participants made it clear that they are opposed to changing the current way of doing business with various explanations as to why resulting in 25% that is unwilling to adapt to digitalisation. The next thematic that presented itself from the obstacles of the sales force and customer in which 33% of participants presented that the uptake from the sales force would a major obstacle between the sales force and customer. The last thematic under the section of obstacles is that of the organisation which indicated two differing views which is financial obstacles found by 25% of participants and too little data found by the other 25%, this thematic also had a major portion of the participants; 25% of the participants; not willing to comment on

organisational obstacles. These are responses of some of the participants to the obstacles of digitalisation:

“So, to really have, I almost want to say, um, education of your customers before you can really move on with digital. Okay. That's my biggest obstacle.” (Participant 1)

“That I, I would always almost answer the same way. Because if your team is not comfortable with a QR code, if your team is not comfortable to explain it to the customer and to sell the whole idea to a customer, they don't want to do it. So, for them, it's easier to have a piece of paper and to discuss it on a piece of paper, then to stand with a QR code and they don't know how to use the QR code or to scan the QR code. So again, if you don't have the buy-in from your team, it's not going to happen.” (Participant 2)

“I think, and we saw it towards the end of Covid, people are very quickly to become digital fatigue, if I can put it that way. So, it's another spam email, it's another WhatsApp, it's another, a Zoom meeting. It's another, and, and people get tired of it and it's much easier to just ignore an email and, and not read it than to deal with something that's a paper on your desk that you need to deal with. So yeah, I think the fatigue on digital is, is a big problem.” (Participant 5)

“One of the biggest challenges for me is you can give people data. Is it credible information? So, you need to take a whole bunch of data and turn it into credible information. Something that someone can look at for five minutes and understand. People do not have the luxury of trolling through data, because the more you look at data, the more you can see in data. So, one of the biggest challenges is getting people to read and understand and use their data.” (Participant 6)

“I think there's obstacles. I think a lot of people don't really know how to use certain programs or know how to use technology. You need training on that. You need to be informed on what, how it works, how the system works and things like that. Obstacles around it is a job, just people not knowing how it works. Not familiar with technology. But it can also save time. There's a lot of benefits to that as well.” (Participant 7)

5.3. DIGITALISATION ADAPTATIONS

The last section of the thematics looks at the changes or adaptations of the various stakeholders in digitalising the pharmaceutical industry. The first thematic is the changes of the organisation, this thematic has split opinions on adaptability although both look at upskilling which is where the difference is applicable to which level of the organisation as 50% of participants found that the entire organisation needs to upskilled which include management and the sales force and another 33% found that only the managers needs to upskilled which can then be passed on to the sales force. The following thematic on the changes from a customer perspective found that 33% of participants expressed the need for the sales force to position or upskill the customer for digitalisation to be successful and another 58% found that there would be no change needed at a customer level as they are already using digital systems and the transition from one system to another would be eased. One out of the twelve participants felt that the sales force needs to adapt their mindset only when it comes to digitalisation and another 50% of the participants found that the sales force would need to be upskilled and change their mindsets to successfully use and implement digitalisation into their current business models, another three participants found that the sales force would not needs to adapt which amounts to 25% of the sample. The last thematic under adaptability is that if financial implications, where 33% of the sample did not have any comment on this, 17% of the sample found that more spend needs to be allocated to acquiring more and accurate data for analysis, the other 50% indicated that the expenditure needs to be proven by increased sales and efficiency from the sales force before expanding into the next department. Below are some direct quotes from participants on changes of that digitalisation would have:

“Well, to be honest, it is sort of like pulling teeth. Like with anything, some people are more prone or more proactive or more receptive for that and others are not. So, but ultimately, as like with anything, if the more you explain, the more you show, the more you lead, the easier it become for the risk to understand.” (Participant 2)

“First and foremost, I think the human factor in the organization, the level of expertise or knowledge or in an organization and the willingness to change or to accept from what was valid yesterday to what's valid next year. And I would say that the human

factor in the whole thing would be if I look at our setup, would be the biggest challenge." (Participant 4).

"That brings resistance to change, perhaps not necessarily fear, but ignorance about the future. And that brings the reluctance, not resistance, could be, but more reluctance to move on." (Participant 8)

"So, you'll reach more, it's the speed and the reach. Everybody works on devices. It's very, I think the percentage of people in our sphere of practice that do not use, very few people don't use a device of some sort, and they all have access to that. So immediate gratification, we live in the era of immediate gratification. And then also the competitive advantage of that, I said is if I can change, inform within a second within an hour, that hour can be the difference between my success versus the competitor success. (Participant 10)

"My role or a role similar to mine would be to be knowledgeable, and proactive and perseverance is it's not to give up. If we look at a sales perspective or a marketing perspective, so go with a flow, go with a change to be there and, and quickly realize that change is necessary and to implement it, understand it, know about it, understand it, and implement it as fast as possible, in particular in a marketing setup." (Participant 11)

"Well, that's, I think in our industry there a lot has already changed. We have online pharmacies, we have online presence, many companies and we try to get customers, we have practices in place to, to entice from a consumer as, as to a, a scripted version to entice the consumer and the patient to visit you again, is, is to build trust with and awareness, let's say a rather awareness, trust is a different thing." (Participant 12)

5.4. PARTICIPANTS FOCUS FOR DIGITALISATION

The last thematic looked at participants and their view of digitalisation whether it is from their department or the organisation. This thematic indicated that 33% of the sample is viewing digitalisation as necessary throughout the entire organisation and not merely in their department.

The tables below indicate the results of the study:

Table 2. Summary of conceptualisation of digitisation and digitalisation

Participant	Stance	Experience	Digitization	Digitalisation
# 1	Against	Intermediate	Good understanding	Departmentally focused, not willing to expand further than department
# 2	Pro	Expert	Strong conceptualisation of digitization	Good understanding of encompassing approach
# 3	Pro	Intermediate	Good understanding	Departmentally focused, would like encompassing approach
# 4	Pro	Beginner	Struggling to conceptualise definition	Only looks at sales position and doesn't consider organisational influence
# 5	Pro	Expert	Strong conceptualisation of digitization	Good understanding of encompassing approach, also including different stakeholders
# 6	Pro	Intermediate	Strong conceptualisation of digitization	Considers management of digital aspects for sales team as digitalisation
# 7	Against	Beginner	Good understanding	Doctor detail focused, doesn't understand the need for digital aspects to their job
# 8	Against	Beginner	Good understanding	Hospital focused, understands the concept of digitalisation from surroundings
# 9	Pro	Intermediate	Struggling to conceptualise definition	Only looks at aspects that influences the sales and not the organisational level
# 10	Pro	Expert	Strong conceptualisation of digitization	Good understanding of holistic approach for digitalisation
# 11	Pro	Beginner	Struggling to conceptualise definition	Describes digitalisation from a managerial role and not encompassing
# 12	Pro	Expert	Good understanding with strong examples being implemented	Believes individual digitization is necessary to form encompassing digitalisation

Table 3. Obstacles to digitalisation

	Obstacles			
Participant	**Upskilling**	**Adapting to change**	**Customers/sales force**	**Organisation**
# 1	Required for management and sales	Opposed to digitalisation	no comment	no comment
# 2	Continuous upskilling management and sales	Already implemented digitization, moving to digitalisation	Uptake is an issue, especially when dependant on sales force	Financial restraints and archaic business model
# 3	Continuous upskilling management and sales	Implemented digitization through social media platforms	Uptake is an issue, especially due to digital fatigue	Due to prior failures of digital marketing, has a cautious approach
# 4	Initial upskilling required for sales force	Open to change if it increases sales effectiveness	Doesn't consider customer adapting business model	no comment
# 5	Continuous upskilling organisational and customer	Feels continuous change is necessary to keep up with customer rate of digitization	Sales force needs to adapt role from information source to business partner	Organisation is slow to implement changes in digitalisation due to financial implication
# 6	Upskilling management on data analysis and sales team on interpretation	Management needs to be adaptable, and sales force needs to change their mindset	Customers require less information from sales force, that is why information should be more impactful	More data is required from different sources to create a clearer picture
# 7	Severe upskilling will be required for the sales force	Not open to change as previous experience has been successful	Feels the digital aspect will create a barrier between the salesperson and the customer	Data analysis should be done at management level and provide guidance to sales force

# 8	Upskilling is necessary to be more efficient during an interaction	Feels the existing model of interactions leads to success	Understands that digitalisation is required in a clinical setting, although feels that digital fatigue will enter through this	no comment
# 9	Believes that upskilling will be a waste due to the individuals age	Not open to change as previous experience has been successful	Customer has been digitized but feels hard copy marketing and sales are effective	Does see the changes coming in from the organisation but feels some on the sales force are left behind
# 10	Upskilling for all in the organisation, management, and sales	Open to change if it increases sales effectiveness	Believes that obstacle will be at sales level when positioning it to the customer	Slow uptake in organisation due to slow uptake from staff in the organisation
# 11	Upskilling for sales force is required to better analyse data	Feels that digitalisation will impact the human factor of management	Uptake is an issue, especially due to digital fatigue	More data is required from different sources to create a clearer picture
# 12	Holistic upskilling for the entire organisation	Open to change but believes that some aspects should remain such as personal contact	Interactions with customers will change and adapting from both parties is required	Financial constraints and effectiveness of digital processes

Table 4. Adaptability to digitalisation

	Adaptability				
Participant	**Adaptability organisation**	**Adaptability customer**	**Adaptability sales**	**Financial**	**Strategy alignment**
# 1	Management onto sales	No change required	Mindset change	No comment	Marketing oriented
# 2	Entire organisation	Upskilling from sales	Upskilling and mindset change	Initial spend for future saving	Encompassing
# 3	Management onto sales	Change media format from static to video	Upskilling and mindset change	Spend and return is required from a financial aspect	Marketing oriented
# 4	Organisation needs to upskill sales force	Doesn't consider change to customer	Feel upskilling is required but will only use if proven efficacy	No comment	Sales oriented
# 5	Organisation is adapting but slower than customer adaptability	Customer is using digital systems to track availability, usage, and clinical information	Slow adaptation due to cautious approach for fear of loss of business	Initial spend for future saving	Encompassing
# 6	Management onto sales	Customers are changing but organisation can be impactful with better data	Interpretation skills from sales force needs to improve	Spend for more data from other sources.	Management
# 7	Management needs to adapt	Customers prefer personal interactions and wouldn't react well to digitalisation	Doesn't feel the sales force needs to adapt	No comment	Detail oriented
# 8	Platforms to ease sales force time wasting	Customers already uses digital platforms, doesn't feel the need to add more platforms.	Doesn't feel the sales force needs to adapt	No comment	Hospital oriented

# 9	Organisation is already adapting	Customer has already started to adapt to a digital platform	Doesn't feel the sales force needs to adapt	Feels the changes are a financial waste for some on the sales force	Hospital oriented
# 10	Organisation is already adapting	Customers is already using digital system for business; the new systems need to increase ease of business	Upskilling and mindset change	Financial changes need to be matched with increased sales to motivate further investment	Encompassing
# 11	Sales needs to adapt to digital aspects of the business	Sales force needs to position digital systems to customer for smoother change over	Upskilling and mindset change	Spend for more data from other sources	Management
# 12	Small changes are being made throughout the organisation to become more digital	Depends on the positioning of the sales force around the digital system	Upskilling and mindset change	More financial inputs can be provided as previous systems are proven successful	Encompassing

6. DISCUSSION

6.1. OBSTACLES TO DIGITALISATION

The thematics that came out of the interviews was divided into obstacles and adaptations, thus the discussion will be discuss according to the thematics of each section individually.

6.1.1. OBSTACLE 1: UPSKILLING

The first obstacle that came from the interviews was that of upskilling with the differing points of the entire organisation or just the sales force. Looking at digitalisation, upskilling the sales force would increase the benefits of digital transformation (Kane G., 2019). As a sales representative the primary role is to generate sales towards your organisations brand and while digitalisation would enable the representative with insight to be more effective (Abedin et al., 2012), it would not enable management with market insight due to lack of upskilling to generate marketing campaigns and satisfying the customer needs (Nell et al., 2021). Due to the obstacles associated with digital transformation and the associated changes, managements involvement will be critical to the success of the upskilling of the sales force (Abedin & Kozanoglu, 2021). However, the sales representative would still need to upskill instead the measurement of success should be changed from increased sales to increased understanding and capabilities of the sales force (Abedin & Kozanoglu, 2021). Thus, it would be beneficial to upskill the entire organisation to set a high standard within the market and provide the customer with the most efficient and comprehensible solutions. The other obstacle that came forward was the continuous or initial upskilling that would be required, as the use of digital technologies was drastically expanded in the marketplace and without continuous upskilling the organisation would fall behind and their solutions to the market would not be applicable.

6.1.2. OBSTACLE 2: ADAPTING TO CHANGE

The following the thematic that came through was the adaptability of the participant, the most prominent discussion around the current digitisation that the organisation has in place and the debate on whether further changes would be necessary. Unfortunately, the evolution of technology would not allow for an organisation to remain on outdated technologies as the access to information is becoming easier for the customers as well. Due to the highly competitive market in pharmaceuticals, constant change would be required from the sales force and management should employ supporting functions throughout (Eden et al. 2019). The current implementation of the digital component is being done by department as marketing has started using QR codes, podcasts, webinars, and virtual consulting with the customers. Departments such as operations are using tracking technologies and availability lists from wholesalers to ensure the sales representative can be most efficient when in front of the customer. Implementation of applications has been growing in the market for the customer to track their outstanding amounts to wholesalers and track their ordering habits whether is via OrderWise which is an online ordering system or through the representative. The major disconnect becomes apparent when it comes to the access of the sales representative to this information which could assist the sales force with their business discussions at the customer level. The only digital aspect for the sales representative is currently Repwise in South Africa which allows the representative to place online orders and provide feedback to the office. Management of Repwise can be increased as crucial information is being provided by the sales force through their feedback which should assist marketing and management with their strategy going forward. Organisations should shift their focus from the implementation of digital to increase their revenue and focus on the mentality and changes that the sales force is undergoing (Murawski & Bick, 2016). Quite a few participants were worried about the personal interactions with their customers and how these new digital systems would affect their relationships with them. This is an area that specific focus should be given to when upskilling the organisation, to interact on a personal level yet still make use of the digital tools available to drive business more efficiently and be of value to the customer (Orlikowski, 2000).

6.1.3. OBSTACLE 3: INTERACTION BETWEEN SALES TEAM AND THE CUSTOMER

The next thematic looks specifically at the interactions between the customer and the sales for with the implementation of the digital component. Most of the participants felt that uptake would be an obstacle due to the sales force positioning the digital components correctly to the customer (Furtner et al., 2022). This strongly relates to the obstacle of upskilling the sales force which would enable them to position the digital component and ensure the value proposition would be explained to the customer (Nadeem et al., 2018). Further dividing into the dividing the results into the divisions led to answers of digital fatigue (Zeike et al. 2019) that has become an obstacle at doctor and hospital level after the COVID-19 pandemic where pharmaceutical companies moved their marketing and sales calls to virtual platforms. These participants further elaborated that the digital fatigue their customers experienced has left a negative connotation with digitalisation and that a movement to digital platforms would likely influence their relationship. This obstacle would be very dependent on the value of the digital platform to the practitioner or customer and thus the upskilling of the sales force would be critical in providing a clear message with the implementation of the digital platform (Anderson & Robey, 2017). In a highly personal industry such as pharmaceuticals it would be beneficial to implement small changes when it comes to the interactions between the sales force and the customer as to not impact the relationship.

6.1.4. OBSTACLE 4: ORGANISATIONAL OBSTACLES

The last thematic that presented itself through the interviews was that of the organisation with three outcomes presenting themselves as financial obstacles, insufficient information obstacle and the obstacle of unvalidated efficiency of digitalisation in the pharmaceutical industry. The obstacle of finances was presented by management participants which work either as team managers or marketing managers, they explained that digital platforms could be implemented at a quicker pace but due to budgeting for campaigns taking most of the expenditure there is very little budget left for innovative solutions such as

digitalisation (Nell et al., 2021). This organisational obstacle was elaborated by some participants as proven efficiency within the industry is very little to convince the EXCO of investing in digital platforms. Within the organisation previous digital marketing campaigns was unsuccessful which also adds to the hesitancy of the EXCO to further invest into a digital platform. The last organisational obstacle that presented itself was that of insufficient information (Nell et al., 2021) which should be initial investment as it would guide the sales force and management around the positioning and branding of their brands and which key markets to target. This would enable the sales force to investigate a customer's usage of a certain molecule and the current brand that they support as to position themselves against that brand. Management can use this information to target key accounts and areas as to guide the sales force on where to go sell a specific brand.

6.2. ADAPTATIONS TO DIGITALISATION

Following the obstacles to digitalisation, the participants gave their insights into how these changes can influence their current position and how they will manage the change associated with digitalisation. This gave the section on adaptability of the participants where several thematics presented itself including how the organisation would manage these changes, how the customer would manage these changes, how the sales force would manage these changes, and how the financial spend should be allocated for the organisation to initiate the introduction of digitalisation.

6.2.1. ADAPTATION 1: ADAPTATIONS OF ORGANISATION

The first thematic of this section which is the changes within the organisation presented two main outcomes, the first of which is where the management would initially undergo training to be upskilled in the use of digital aspects of business and then educate the sales force accordingly as the management felt they required the information (Abedin & Kozanoglu, 2021). The sales team would however not be able to present these digital solutions to their customers with the clarity that is required to convince a customer to make use of the digital platform. The second outcome is to upskill the sales force as they would be focus of the

digital platform to create an environment to ease their business and increase their efficiency in front of the customer (Nadeem et al., 2018). This would lead to clearer messaging to the customer however would increase the workload on the sales force which could lead to digital fatigue or burnout, furthermore the management team which requires the information to create a strategy and provide guidance (Abedin & Kozanoglu, 2021) would not be skilled to provide the sales team with the necessary direction. Thus, the entire organisation would need to be upskilled to ensure that a standard is maintained and to not overburden a certain position within the organisation which would lead to underinformed positions alternatively.

6.2.2. ADAPTATION 2: ADAPTATIONS OF THE SALES TEAM

The second thematic is the adaptability of the sales team and how they would manage the change associated with digitalisation. The main outcome from this thematic is that the sales team would need to be upskilled with the use of digital platforms (Dery et al., 2017). This should be continuous upskilling as new technologies and data analysis tools would enable the sales team to become more efficient in front of the customer (Nadeem et al., 2018). There is however a major obstacle that presented itself in this part of the interview whereby 50% of the participants felt that a change in mindset would be required from the sales team as they would be hesitant and reluctant to using digital platforms. This is due to the personal service that the sales team provides to the customers through building strong relationships with their customers (Murawski & Bick, 2016). Digital components of a sale will be seen as a barrier that is created between the sales representative and the customer with the personal attention declining. The one participant suggested managing this change through slow, incremental adaptations whereby the sales team becomes comfortable with the one component of a digital platform before initiating the next component of the digital platform (Eden et al. 2019). This would enable the sales representative to not be overwhelmed or overwhelm their customer and ease the use of technologies for both while not damaging the relationship. The suggestion around the mindset of the sales team that a few participants made is to illustrate the ease of using technology (Murawski & Bick, 2016) and the value proposition of the digital

platforms to the sales team with their customers (Nell et al, 2021). It would require the management to accompany the sales team to ensure they become familiar with the systems and how to position it to their customers.

6.2.3. ADAPTATION 3: ADAPTATIONS OF THE CUSTOMER

The customer would also need to manage changes with the implementation of digital platforms, although the customers has already been using various digital systems for their business (Konttila et al., 2019). This stresses the importance of the new digital system being of value to the customer as they would not be interested unless it eases their means of doing business and makes their decision-making process easier and more efficient (Mergel et al., 2019). However, caution should be taken when introducing a new digital system especially to customers who is already making use of digital platforms to track their stock usage and dispensing data as digital fatigue does start playing a role with these customers. A prominent outcome from a marketing perspective is that the digital marketing platforms has moved away from static advertising of social media and moved to motion advertising after the overuse of digital marketing during the time of COVID-19 (Ringenson et al., 2018). The customer managing the change of a new digital platform remains dependant on the value proposition of the sales representative and thus immense upskilling would be required for the sales force and consequently the management team (Mergel et al., 2019).

6.2.4. ADAPTATION 4: FINANCIAL ADAPTATIONS

The financial investment into digitalising business in the pharmaceutical industry is being implemented with various organisations within South Africa, the investment and development of these digital platforms is however being done one department at a time. Within pharmaceutical research and development always enjoyed the technological advancements within the industry however COVID-19 has accelerated technological advancement in other divisions of the industry starting with marketing of non-SEP brands (Ringenson et al., 2018). Marketing in the pharmaceutical industry is highly regulated as only non-SEP or non-scheduled brands can be advertised, however marketing to a healthcare

provider of scheduled brands can be done. The pharmaceutical industry has been using QR codes to start digitising their existing marketing model with QR codes for the brands and QR codes for the disease entity which the public could scan to further inform them on their disease. The sales force is using interactive programs on their handheld devices to inform the customer of their brand and virtual webinars has become the standard in the industry (Furtner et al., 2022). However, a lot of the investment in these systems are dependent on the successful positioning of the sales force and the digital fatigue the sales force experience and maintaining customer relations is the delaying factor when introducing digital systems or platforms (Kane et al., 2019). Moving from marketing into operations the sales force has access to the stock levels at the various wholesalers on their devices to make informed decisions on where to place the customer's order, this has become increasingly difficult as the customer has this data available through their ordering system called Order Dynamics. The difference between the systems implemented by marketing and operations can clearly define the need for a digital system to be of value to the customer and the sales force instead of investing in a system that is readily available to the customer. Management highlighted that investment in data would be required, however it would not just be investing in data but also upskilling the entire organisation on how to analyse and use the data to increase efficiency at customer level (Nell et al., 2021).

6.3. EFFECTS OF DIGITALISATION

The effects of digitalisation on pharmaceutical sales management in South Africa must be viewed from three different perspectives which includes the sales team, the sales managers, and the customer.

6.3.1. EFFECTS OF DIGITALISATION ON THE SALES TEAM

The effect of digitalisation on the sales team would see an increase in efficiency (Nell et al., 2021), this is due to the information being on hand of the customer accounts, tracking past and current orders from wholesalers which would enable the sales representative to analyse ordering trends of the customer to ensure

sufficient stock holding during the peak periods, analysing past data on the usage of a specific molecule the customer uses which allows the sales representative to plan and position their brands against the competitor brands, immediate marketing to the customers (Ringenson et al., 2018). in the sales representatives area which increases the communication between customer and the sales representative; all of these allow the sales team to become more business analysts and consultants rather than sales representatives. The downside to the implementation of digitalisation is the effect on the customer relations which should be managed through cautious implementation of these systems (Konttila et al., 2019). Through the correct use of these system and presenting the value proposition to the customers the sales team should enhance their relationships with the customers as they are becoming a partner within the customers business (Mergel et al., 2019). By addressing the customer needs through the data driven business model, being transparent with the digital system revealing all aspects of the customers business with the organisation provides the customer with a holistic view of what the organisation can provide for their business and eases the means of doing business with the sales representative. The effect with the implementation of digital systems and platforms would lead to upskilling and development of the sales representative (Du et al., 2019) which in turn leads to employee satisfaction as investment into the development of the employee is being made (Abedin & Kozanoglu, 2021). The downside of digitalisation that must recognised is the over-reliance on data instead of the human factor (Nell et al., 2021) which could have a potentially devastating effect on the relationship between the customer and the sales representative. Digital fatigue is a concerning effect of digitalisation which would mean that the sales representative should be constantly monitored for exhaustion (Konttila et al., 2019).

6.3.2. EFFECTS OF DIGITALISATION ON MANAGEMENT

Viewing the effect of digitalisation from a management perspective the most concerning aspect is the digital fatigue that is associated with it (Konttila et al., 2019). As the managers would be spending more time analysing data, identifying trends, and building a strategy around the feedback from the sales team and the data (Nell et al., 2021), their exhaustion levels would need to be monitored

closely. As a manager, the individual would not only be responsible for their own well-being in terms of their exhaustion but also that of the sales team (Abedin & Kozanoglu, 2021). Digitalisation does however connect the different business departments as to ease their decision-making process through on demand data on operations (Nell et al., 2021), marketing and finances which makes their turnaround time faster when looking at possible strategies to attain or maintain competitive advantage. Through faster turnaround times and quicker decision-making, the management team does become more efficient and allows for adaptability in a highly competitive market. Development through upskilling is the same advantage as with the sales team whereby investment into the individual would lead to a better employee satisfaction level (Abedin & Kozanoglu, 2021).

6.3.3. EFFECTS OF DIGITALISATION ON THE CUSTOMER

The effects of digitalisation would also influence the customer as they are the end-user that would benefit from digitalisation (Nell et al., 2021). from the organisation through more transparent digital systems being presented to them by the sales team which allow them a better insight into their business and the benefits of doing business with the organisation such as the ease of doing business. The customer in the pharmaceutical industry is customer facing and thus does not have free time to analyse data and trends which is a value proposition the organisation would bring to the business of the customer. Caution needs to be given to privacy especially in an industry such as pharmaceuticals which is highly regulated.

6.4. MANAGERIAL IMPLICATIONS

The managerial implications for this study can be provided through two actions that needs to be taken namely the upskilling of the sales force and what the implication of that would be within the industry; and the management of the digital technologies the implications of this on the organisation and the industry.

The first action that is required would be to upskill the organisation in term of digitalisation. This can be achieved as Vyas et al. (2017) recommended the

“interaction-centred approach” whereby the sales force be introduced to the digital technologies and further development would be brought about by interacting with the digital technology. To further this development, Anderson & Robey (2017) recommends a collaborative approach between employees and other stakeholders. The implications of the upskilling of the sales force would have a direct impact on the end-user which is the pharmacist, the doctor and the hospital personnel in this study. At pharmacy level the implications would be the increased efficiency of the pharmacist who can readily attain information from the organisation or the sales representative; information such as the stock levels of products, the interactions between medications, the marketing messages around new brands being launched etc. The implication drawn from that is also the transparency that goes into the business model which is lacking now. The implication for the doctor would be increased knowledge attained from the sales force as clinical data would be more readily available around new treatments and medical insurance. The hospital setting is a high pressure setting as a mistake could lead to loss of life, thus information around stock levels can become critical in this setting. Further implications would be the information that becomes more accessible to the hospital personnel especially treatments within the ICU. Taking COVID-19 as an example, the effects of digitalisation could be seen through the open sharing of practitioners around the world suggesting treatments that was effective in their setting, also the development of a vaccine through international collaboration that was brought about through digital technologies. The last implication of tempo becomes more relevant within the hospital setting due to the high-pressured environment.

The second action that is deduced from this study is the continuous management of the digital technologies. The management of the digital technologies has been mentioned through the “interaction-centred approach” by Vyas et al. (2017), however this approach does have specific stages to it. The first stage would be where the sales force would individually interact with the technology, learning and developing affordances as they progress, the second stage would see the individuals interact with each other while using the technology to learn from each other about the different functions which the technology has unfolded in their use of it, the last stage would be sharing of this acquired knowledge and

developments with society, which in this case would be the customer referred to above in the section of upskilling. Thus, the two actions form a combined unit to deliver the most efficient digital technology to the market.

7. CONCLUSION

7.1. CONCLUSION OF RESEARCH PROBLEM

At the outset of this research, the problem statement for this study was the slow uptake of digital transformation in managerial positions throughout the pharmaceutical sales industry. Considering what the research has found, the slow uptake of digital transformation can be attributed to multiple factors such as incremental implementation of digital technologies due to unvalidated success of these systems within the pharmaceutical industry, due to unskilled personnel and due to financial constraints of the organisation. The research also found that not merely the management of the organisation needs to be upskilled as the digitalisation would influence the sales force and the customer.

7.2. CONCLUSION OF RESEARCH QUESTION 1

The first research question was on whether digitalisation would increase the efficiency of the sales force, this question is not clearly answered in the research as the participants found that a cautious approach to digitisation is being followed whereby organisations are transforming a department at a time as previous success has not been proven. However, the participants indicated that through upskilling and clear positioning of digital system their efficiency would improve as the role of the sales representative is changing with customers having more access to information.

7.3. CONCLUSION OF RESEARCH QUESTION 2

The second research question asked what would be required for digitalisation to successful in the pharmaceutical industry, this research question is clearly

answered through three thematics identified through the research. The participants indicated that financial investment in digital technologies would be required whether it is attaining more data or implementing a digital system to assist the sales force in-field with their customers, the participants also indicated that the entire organisation would have to be upskilled in order for digitalisation to be successfully implemented and that the sales force would need to adapt their current model of business to incorporate digital system which adds value to their customer.

7.4. CONCLUSION OF RESEARCH QUESTION 3

The third research question is on how digitalisation would change the current landscape within the pharmaceutical industry, this is clearly discussed through how the customer has already started using their own technologies to identify their usage and trends of usage, although these systems can be time consuming in a environment that is customer service the entire day. This is how digitalisation would change the current landscape within the pharmaceutical industry through the sales force becoming a business partner to the customer by discussing and presenting this information and suggesting a value proposition that the organisation would benefit for the customer. The role of the sales team is changing as the customer is changing and digitalisation would be the next point of evolution for the sales force and organisations to keep a competitive advantage in a very competitive market.

7.5. RESEARCH LIMITATIONS

There are certain limitation and weaknesses to this study, these include the spread of the population, limited research within the pharmaceutical industry, and limited representation from organisations within the pharmaceutical industry. The spread of the population is limited to the Gauteng region and could affect the study as representation from areas with limited resources and emerging markets would give different results due to less exposure to technology as is evident in Gauteng. There is limited research that is done within the pharmaceutical industry and specifically on sales force management which make the research and prior

research a limitation, this can be overcome by bringing in similar research from other industries specifically focused on their sales force management and digitalisation.

7.6. RECOMMENDATIONS AND FUTURE RESEARCH

It is recommended that qualitative research be done on a larger population and across a larger region which would allow for the different demographical influences to be considered in the study. As the second research question is not clearly answered regarding the effect on efficiency that digitalisation has on the sales team, a quantitative research study can be conducted in the future to determine the effectiveness of digitalisation.

Future research can elaborate on the existing study by focusing in on the sales division such as the commercial sales division, the hospital sales division, and the doctor detailing division. The same focus can be given to managerial positions to research the effects of digitalisation on regional sales management, key accounts management, marketing managers, operations managers, and financial managers.

8. REFERENCES

Abedin, B., Daneshgar, F., & D'Ambra, J. (2012). Do nontask interactions matter? The relationship between nontask sociability of computer supported collaborative learning and learning outcomes. *British Journal of Educational Technology*, *43*(3), 385-397.

Anderson, C., & Robey, D. (2017). Affordance potency: Explaining the actualization of technology affordances. *Information and Organization*, *27*(2), 100-115.

Arifin, S. R. M. (2018). Ethical considerations in qualitative study. *International journal of care scholars*, *1*(2), 30-33.

Britten, N. (1995). Qualitative research: qualitative interviews in medical research. *Bmj*, *311*(6999), 251-253.

Cetindamar Kozanoglu, D., & Abedin, B. (2021). Understanding the role of employees in digital transformation: conceptualization of digital literacy of employees as a multi-dimensional organizational affordance. *Journal of Enterprise Information Management*, *34*(6), 1649-1672.

Dery, K., Sebastian, I. M., & van der Meulen, N. (2017). The digital workplace is key to digital innovation. *MIS Quarterly Executive*, *16*(2).

Devereux, M. P., & Vella, J. (2018). Debate: implications of digitalization for international corporate tax reform. *Intertax*, *46*(6/7).

Drews, J. (1989). Research in the pharmaceutical industry. *European Management Journal*, *7*(1), 23-30.

Du, W. D., Pan, S. L., Leidner, D. E., & Ying, W. (2019). Affordances, experimentation and actualization of FinTech: A blockchain implementation study. *The Journal of Strategic Information Systems*, *28*(1), 50-65.

Dunleavy, P., Margetts, H., Tinkler, J., & Bastow, S. (2006). *Digital era governance: IT corporations, the state, and e-government*. Oxford University Press.

Eden, R., Burton-Jones, A., Casey, V., & Draheim, M. (2019). Digital transformation requires workforce transformation. *MIS Quarterly Executive*, *18*(1), 1-17.

Ellison, N. B., Gibbs, J. L., & Weber, M. S. (2015). The use of enterprise social network sites for knowledge sharing in distributed organizations: The role of organizational affordances. *American Behavioral Scientist*, *59*(1), 103-123.

Fähndrich, J. (2022). A literature review on the impact of digitalisation on management control. *Journal of Management Control*, 1-57.

Fainshmidt, S., Witt, M. A., Aguilera, R. V., & Verbeke, A. (2020). The contributions of qualitative comparative analysis (QCA) to international business research. *Journal of International Business Studies*, *51*, 455-466.

Faraj, S., Renno, W., & Bhardwaj, A. (2021). Unto the breach: What the COVID-19 pandemic exposes about digitalization. *Information and Organization*, *31*(1), 100337.

Fatti, A. C. (2013). *Competitive intelligence in the South African pharmaceutical industry*. University of Johannesburg (South Africa).

Finelli, L. A., & Narasimhan, V. (2020). Leading a digital transformation in the pharmaceutical industry: reimagining the way we work in global drug development. *Clinical pharmacology & therapeutics*, *108*(4), 756-761.

Fountain, J. E. (2004). *Building the virtual state: Information technology and institutional change*. Brookings institution press.

Furtner, D., Shinde, S. P., Singh, M., Wong, C. H., & Setia, S. (2022). Digital transformation in medical affairs sparked by the pandemic: insights and learnings from COVID-19 era and beyond. *Pharmaceutical Medicine*, *36*(1), 1-10.

Gobble, M. M. (2018). Digitalization, digitization, and innovation. *Research-Technology Management*, *61*(4), 56-59.

Hagberg, J., Sundstrom, M., & Egels-Zandén, N. (2016). The digitalization of retailing: an exploratory framework. *International Journal of Retail & Distribution Management*, *44*(7), 694-712.

Hole, G., Hole, A. S., & McFalone-Shaw, I. (2021). Digitalization in pharmaceutical industry: What to focus on under the digital implementation process?. *International Journal of Pharmaceutics: X*, *3*, 100095.

Hopf, C. (2004). Qualitative interviews: An overview. *A companion to qualitative research*, *203*(8), 100093.

Kane, G. (2019). The technology fallacy: people are the real key to digital transformation. *Research-Technology Management*, *62*(6), 44-49.

Khoele, A., & Daya, P. (2014). Investigating the turnover of middle and senior managers in the pharmaceutical industry in South Africa. *SA Journal of Human Resource Management*, *12*(1), 10.

Kim, H., & So, K. K. F. (2022). Two decades of customer experience research in hospitality and tourism: A bibliometric analysis and thematic content analysis. *International Journal of Hospitality Management*, *100*, 103082.

Knudsen, D. R. (2020). Elusive boundaries, power relations, and knowledge production: A systematic review of the literature on digitalization in accounting. *International Journal of Accounting Information Systems*, *36*, 100441.

Konttila, J., Siira, H., Kyngäs, H., Lahtinen, M., Elo, S., Kääriäinen, M., ... & Mikkonen, K. (2019). Healthcare professionals' competence in digitalisation: A systematic review. *Journal of clinical nursing*, *28*(5-6), 745-761.

Kumar, U. S. (2019). Case Study: Digitization and digitalization in pharmaceutical industry: opportunities and challenges in India. *Advances In Management*, *12*(4), 23-29.

Liebenberg, L., Jamal, A., & Ikeda, J. (2020). Extending youth voices in a participatory thematic analysis approach. *International Journal of Qualitative Methods*, *19*, 1609406920934614.

Manyika, J., Lund, S., Chui, M., Bughin, J., Woetzel, J., Batra, P., ... & Sanghvi, S. (2017). Jobs lost, jobs gained: Workforce transitions in a time of automation. *McKinsey Global Institute*, *150*.

Marshall, B., Cardon, P., Poddar, A., & Fontenot, R. (2013). Does sample size matter in qualitative research?: A review of qualitative interviews in IS research. *Journal of computer information systems*, *54*(1), 11-22.

Marshall, M. N. (1996). Sampling for qualitative research. *Family practice*, *13*(6), 522-526.

Mergel, I., Edelmann, N., & Haug, N. (2019). Defining digital transformation: Results from expert interviews. *Government information quarterly*, *36*(4), 101385.

Murawski, M., & Bick, M. (2017). Digital competences of the workforce–a research topic?. *Business Process Management Journal*, *23*(3), 721-734.

Nadeem, A., Abedin, B., Cerpa, N., & Chew, E. (2018). Digital transformation & digital business strategy in electronic commerce-the role of organizational capabilities. *Journal of theoretical and applied electronic commerce research*, *13*(2), 1-8.

Nell, P. C., Foss, N. J., Klein, P. G., & Schmitt, J. (2021). Avoiding digitalization traps: Tools for top managers. *Business Horizons*, *64*(2), 163-169.

Oppong, S. H. (2013). The problem of sampling in qualitative research. *Asian journal of management sciences and education*, *2*(2), 202-210.

Orlikowski, W. J. (2000). Using technology and constituting structures: A practice lens for studying technology in organizations. *Organization science*, *11*(4), 404-428.

Peters, K., & Halcomb, E. (2015). Interviews in qualitative research. *Nurse Researcher (2014+)*, *22*(4), 6.

Rabionet, S. E. (2011). How I learned to design and conduct semi-structured interviews: an ongoing and continuous journey. *Qualitative Report*, *16*(2), 563-566.

Renjith, V., Yesodharan, R., Noronha, J. A., Ladd, E., & George, A. (2021). Qualitative methods in health care research. *International journal of preventive medicine*, *12*.

Ringenson, T., Höjer, M., Kramers, A., & Viggedal, A. (2018). Digitalization and environmental aims in municipalities. *Sustainability*, *10*(4), 1278.

Sandle, T. (2019). Digital transformation of pharmaceuticals and healthcare. *IVT Network. Available online: https://www. ivtnetwork. com/article/digital-transformation-pharmaceuticals-and-healthcare (accessed on 22 September 2020)*.

Servais, G., & Aust, I. (2021). The influence of COVID-19 on digitalization strategy of European and Indian pharmaceutical companies.

Shahbaz, M., Gao, C., Zhai, L., Shahzad, F., Luqman, A., & Zahid, R. (2021). Impact of big data analytics on sales performance in pharmaceutical organizations: The role of customer relationship management capabilities. *Plos one*, *16*(4), e0250229.

Terblanche, C., & Niemann, W. (2021). Counterfeiting: Exploring mitigation capabilities and resilience in South African pharmaceutical supply chains. *Acta Commercii*, *21*(1), 1-13.

Wankhede, A. B. H. A. (2018). Evaluating the effect of digitalization on the sales force of pharmaceutical industry. *Economics and Applied Informatics*, (2), 21-29.

Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & health sciences*, *15*(3), 398-405.

Valenduc, G., & Vendramin, P. (2017). Digitalisation, between disruption and evolution. *Transfer: European Review of Labour and Research*, *23*(2), 121-134.

Vyas, D., Chisalita, C. M., & Dix, A. (2017). Organizational affordances: A structuration theory approach to affordances. *Interacting with Computers*, *29*(2), 117-131.

Xu, W., & Zammit, K. (2020). Applying thematic analysis to education: A hybrid approach to interpreting data in practitioner research. *International Journal of Qualitative Methods*, *19*, 1609406920918810.

Zeike, S., Choi, K. E., Lindert, L., & Pfaff, H. (2019). Managers' well-being in the digital era: Is it associated with perceived choice overload and pressure from digitalization? An exploratory study. *International journal of environmental research and public health*, *16*(10), 1746.

9. APPENDICES

9.1. APPENDIX A: INTERVIEW GUIDE

As this study requires interviews to be done, there are questions that will form the basis of the study and questions that can be added through the process of the interviews if certain trends are presented. The basic questions that will be asked as a basis for this study is the following:

1. DEFINE DIGITALISATION AND EXPLAIN TO ME HOW IT WORKS?
2. WHAT DO YOU THINK THE DIGITAL FUTURE OF THE INDUSTRY LOOKS LIKE?
3. WHAT IS YOUR EXPERIENCE WITH DIGITIZATION?
4. HOW WOULD DIGITAL TRANSFORMATION AFFECT YOUR ROLE?
5. HOW WOULD YOU MANAGE THE CHANGE ASSOCIATED WITH DIGITAL TRANSFORMATION?

9.2. *APPENDIX B: ETHICAL CLEARANCE CERTIFICATE*

Graduate School of Business Administration
University of the Witwatersrand, Johannesburg

Wits Business School

Wits Business School Ethics Committee
Constituted under the University Human Research Ethics Committee (Non-Medical)

Ethics Clearance Certificate

Ethics protocol number: WBS/BA2515201/294
This certificate is only valid with a legitimate ethics protocol number and signed by the Researcher (below)

Project title	Effects of digitalisation on pharmaceutical sales management in South Africa
Investigator / Researcher	Mr Ludwig Fuls
Nature of Project	MBA (Research Article)
Decision of the Committee	Approved, provided stakeholders and participants are guaranteed confidentialty.
Issue Date of Certificate	04 10 2022
Expiry date	Date of submission of the project / research report
Chairperson	Prof Anthony Stacey ☎ +27 11 717 3587 +27 82 880 4531 anthony.stacey@wits.ac.za

Declaration by Researcher

One copy must be signed by the Researcher and returned to the Chairperson of the Wits Business School Ethics Committee.

I fully understand the conditions under which I am authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I undertake to resubmit the protocol to the Committee.

Signature

04/10/2022
Date:

9.3. APPENDIX C: PARTICIPANT INFORMATION SHEET

My name is Ludwig Fuls (2515201) and I am a Masters student at the University of Witwatersrand. I would like to invite you to take part in a research study on the effects of digitalisation on pharmaceutical sales management in South Africa. Please take time to review this document carefully.

I am doing my Master of Business Administration and I am doing a study on the effects of digitalisation on pharmaceutical sales management. This study is to explore the extent to which digitalisation has been implemented in the pharmaceutical sales environment and the understanding of the sales liaison about the influence of digitalisation on their work.

The study involves a one-on-one interview in which five open-ended questions will be asked of the participants. The interviews will be recorded, the interviews will further be transcribed to ease data analysis for the researcher. These interviews will be conducted at the offices of the organisation, and the duration is thirty minutes per interview.

The sampling method used for this study is intensity sampling, which means that participants is selected based on their availability from different divisions which gives a better holistic view from an industry that is divided into various divisions. Participation in this study is voluntary and can be refused, the participant can withdraw from the study at any time during this process.

The ethical considerations for this study to maintain participant anonymity by only using two parameters of the participant, their position, and their experience level. All the data obtained, whether in recording or text format, will be safely stored on an external storage device which is password protected under the supervision of

the researcher for the next five years. All participants will be required to give informed consent for the use of the data obtained in the interviews except for personal information and organisational information.

The results of this study will be shared with the University of Witwatersrand personnel to assess this research project for the completion of my Master's degree. Further use of these results could be in the publication of the three journals nominated for this research project, the Management Dynamics, the SA Journal of Human Resource Management, the Journal of Contemporary Management.

Should you require any further information, please feel free to contact myself or my supervisor for this research article, Dr Emmanuel Quaye. The contact details below can be used:

Ludwig Fuls

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Dr Emmanuel Quaye

Email: Emmanuel.quaye@wits.ac.za

Thank you for your time and consideration for this research study.