

PHARMACEUTICAL DIGITAL MARKETING AND ITS IMPACT ON HEALTHCARE PHARMACISTS IN SAUDI ARABIA

*Thesis Submitted in Partial Fulfillment of the Requirements for the Award of the Degree
of*

MASTER OF BUSINESS ADMINISTRATION

BY

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2025- 2026



Declaration Certificate

This thesis, titled “**Pharmaceutical Digital Marketing and Its Impact on Healthcare Pharmacists in Saudi Arabia,**” presents the findings of original research conducted by me in the **Department of Business Administration, University of MidOcean.** To the best of my knowledge, this work has not been submitted, in whole or in part, for any degree or qualification at the **University of MidOcean** or any other institution.

Date: - _____

Place: - _____

(Signature)

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Acknowledgement

I thank God Almighty for granting me success in this research, and I am pleased to thank my dear parents for what they have given me throughout my life.

I thank my brothers and all my family.

I also make special mention of my teachers, as much as possible for you to spare me their efforts and their vast knowledge.

I extend my thanks to my family and my friends who have been of assistance to me in the path of science

TABLE OF CONTENTS

Contents

Declaration Certificate	ii
Acknowledgement.....	iii
TABLE OF CONTENTS.....	iv
LIST OF TABLES	vi
Abstract.....	vii
CHAPTER 1	2
INTRODUCTION	2
1.1 Introduction	2
1.2 Problem Statement.....	3
1.3 Research Objectives:	4
1.4 Research Significance.....	4
1.5. Research Limitations.....	5
1.6 Research Definitions.....	6
Chapter II	8
Literature Review.....	8
2.1. Literature Review.....	8
2.4. Hypothesis.....	16
CHAPTER 3	18
THE METHODOLOGY	18
3.1. Research Approach	18
3.2. Research Design.....	18
3.3 The Research Sample.....	19
3.4. Tools	20
3.4.1. Tool Description	20
3.5. Study Procedures.....	22
3.6. The Statistical Methods.....	23
CHAPTER 4	25
ANALYSIS AND RESULTS.....	25
4.1. Results of the first question:	25
Results of the second question	27

Results of the third question:	29
Results of the fourth question	30
CHAPTER 5	34
DISCUSSION AND CONCLUSION	34
5.1. Discussion	34
5.2. Conclusion	35
5.3. Managerial Relevance	36
5.4. Scientific Implications	36
5.5. Limitations and Scope for Future Research	37
5.6. Research Recommendations	37
Appendix	38

LIST OF TABLES

N	TABLES	Page
1	Table (1) Showing the Characteristics of the research sample	19
2	Table (2) the five- point Likert scale	21
3	Table (3) shows the results of the correlation coefficient for the validity of the tool.	21
4	Table (4) shows the results of Cronbach's alpha coefficient for the reliability of the tool.	22
5	Table (5) shows the results of the first question	25
6	Table (6) shows the results of the second question	27
7	Table (7) shows the results of the third question	29
8	Table (8) showing the result of t-test	30
9	Table (9) shows the impact of pharmaceutical digital marketing on healthcare Pharmacists	31

Abstract

Background: The Kingdom of Saudi Arabia has tended during recent periods to diversify economic activity instead of relying primarily on oil, and then the Kingdom has tended to pay attention to localizing the pharmaceutical industry, encouraging local production, and then came the need to pay attention to pharmaceutical digital marketing in order to increase productivity and achieve high profitability through this industry.

Purpose: The current research attempts to identify the reality of the application of pharmaceutical digital marketing in the Kingdom of Saudi Arabia, and the importance of applying pharmaceutical digital marketing in the field of health care, as well as identifying the challenges facing the application of pharmaceutical digital marketing, and studying the impact of pharmaceutical digital marketing on health care in the Kingdom.

Research Design and Methodology: During this research, the quantitative approach was relied upon by applying a questionnaire to a sample of (104) pharmacists.

Findings: The results showed that the reality of applying digital marketing for pharmaceuticals in the Kingdom of Saudi Arabia indicates that the Kingdom is taking rapid and advanced steps towards the Kingdom's dependence on digital marketing for pharmaceuticals. It contributes to defining the vision and directions of pharmaceutical companies and enhancing their strength, which facilitates access to Pharmacists and pharmacists and thus increases communication, and that one of the challenges facing the application of digital drug marketing in the field of health care in the Kingdom is the lack of a skilled workforce in the pharmaceutical sector capable of implementing Digital marketing strategies, regulations and laws that make it difficult to implement marketing strategies, relying on several digital pharmaceutical marketing strategies, which causes organizations to be exposed to electronic fraud. Doctor prescribing rates, increasing the productivity of pharmaceutical institutions, increasing drug production rates and the profitability of pharmaceutical institutions.

Practical Implications: The results of this research contribute to the knowledge of pharmaceutical companies about pharmaceutical digital marketing strategies, as well as the reality of pharmaceutical digital marketing in Saudi Arabia and the challenges they face. This research also provides valuable data on pharmaceutical digital shopping in the Kingdom and its impact on healthcare.

Originality / Value: This research contributes to identifying some of the new variables that can be studied with the variable of pharmaceutical digital marketing, the customer's intention to buy, which benefits subsequent researchers. in Pharmaceutical Digital Marketing.

Limitations and future research directions: Among the difficulties that the researcher encountered during this research is the application on the research sample, which took a period of time in order to access and analyze the data. Among the future research directions is the study of the effect of digital drug shopping on the purchase intention of customers in the Kingdom of Saudi Arabia, as well as a study Factors that contribute to increasing drug production rates among pharmaceutical companies in the Kingdom.

CHAPTER 1

CHAPTER 1

INTRODUCTION

1.1 Introduction:

In the modern world, businesses in various fields are growing significantly with the scientific and technological development that has become the basis of the economy of countries. As a result of changing customer behavior and the development of various marketing techniques that have attracted the attention of customers towards the millions of products that are produced on a daily basis. Digital marketing of medicines has contributed to providing many advantages related to saving time in obtaining medicines compared to traditional methods (Jawaid, Ahmed, 2018, P 2).

At present, the number of Internet users in the world is more than 1.96 billion users. This indicates that the world tends to use technology on a daily basis. The growing popularity of technology, the internet and social media has pushed the pharmaceutical industry towards digital marketing. Digital marketing provides an easy access to healthcare and pharmaceutical information to millions of users. Digital media, digital tools and platforms enable the rapid spread of information and the exchange of ideas and experiences. Therefore, the focus on digital marketing of medicines has become one of the most prominent trends and developments in the field of medicines (Ben Said, et al., 2020, P 2).

Digital marketing contributes to providing better and faster opportunities to reach patients, who are the end users of medicines, or reach Pharmacist and health care providers, who in turn prescribe medicines to patients. Pharmaceutical companies seek to reach patients directly, which is a less effective method than reaching Pharmacists. Therefore, pharmaceutical companies seek to

direct digital marketing to display their products towards Pharmacists by relying on modern means of communication and getting rid of traditional methods of reaching Pharmacists. Digital marketing also contributes to saving a lot of time when pharmaceutical companies display their products and brands to Pharmacists and caregivers. Modern technology has replaced the traditional methods of presentation with innovative ways through digital platforms, which guarantees quick access to Pharmacists and ensures effective marketing (Kumar, et al., 2021, P 254).

1.2 Problem Statement:

Digital has become an essential part of all aspects of daily life. Therefore, the various work sectors tended to rely on modern technology in order to keep pace with the changes and developments that the world is constantly witnessing in various fields. With the entry of digital into various fields, marketing has become one of the areas that have benefited the most from digital technology. After reviewing many literatures, it was found that there is little information about the effectiveness of spreading digital marketing techniques for medicines in the Kingdom of Saudi Arabia. Therefore, the current research attempts to identify the impact of relying on digital marketing in the field of medicines on Pharmacists and health care providers in the Kingdom of Saudi Arabia.

According to the foregoing, problem statement can be represented in the following questions:

- ❖ What is the reality of applying pharmaceutical digital marketing in Saudi Arabia?
- ❖ What is the importance of applying pharmaceutical digital marketing in the field of healthcare in the Kingdom of Saudi Arabia?
- ❖ What are the challenges facing the application of pharmaceutical digital marketing in the field of healthcare in Saudi Arabia?
- ❖ What is the impact of pharmaceutical digital marketing on healthcare Pharmacists in Saudi Arabia?

1.3 Research Objectives:

The current research aims to achieve the following objectives:

- ❖ Identify the reality of applying pharmaceutical digital marketing in Saudi Arabia.
- ❖ Identify the importance of applying pharmaceutical digital marketing in the field of healthcare in the Kingdom of Saudi Arabia.
- ❖ Measure the challenges facing the application of pharmaceutical digital marketing in the field of healthcare in Saudi Arabia.
- ❖ Studying the impact of pharmaceutical digital marketing on healthcare Pharmacists in Saudi Arabia.

1.4 Research Significance:

1.4.1 Scientific Significance:

The scientific significance of the research is to highlight digital marketing in order to identify its impact on Pharmacists and health care providers. The significance of the research is also to identify the pros and cons of digital marketing and to identify the most important problems facing pharmaceutical digital marketing. Therefore, it is important to present a set of solutions, proposals and recommendations that may contribute to improving the digital marketing process for pharmaceutical products. This comes by building a theoretical framework based on previous literature and works to provide researchers and health care providers with information and data on the research topic.

1.4.2 Practical Significance:

The practical significance of the current research lies in determining the vital role played by pharmaceutical digital marketing and its impact on Pharmacists and health care providers in the Kingdom of Saudi Arabia. Therefore, the current research presents a set of results and recommendations that were collected from the reality of Pharmacists and health care providers in the Kingdom of Saudi Arabia. The findings of the current research may help the owners of pharmaceutical institutions and health care providers in the Kingdom of Saudi Arabia with regard to the pharmaceutical digital marketing.

1.5. Research Limitations:

-  **Topic Limitations:** This research attempts to study the reality of the application of pharmaceutical digital marketing in the Kingdom of Saudi Arabia, as well as to identify the importance of applying pharmaceutical digital marketing in the field of health care in the Kingdom of Saudi Arabia, to measure the challenges facing the application of pharmaceutical digital marketing in the field of health care in the Kingdom of Saudi Arabia, to study marketing Pharmaceutical digitalization and its impact on health care Pharmacists in the Kingdom of Saudi Arabia.
-  **Human Limitations:** The research will be applied to health care Pharmacists in health care institutions in the Kingdom of Saudi Arabia.
-  **Place limitations:** Healthcare institutions in Saudi Arabia.
-  **Time Limitations:** The research will be applied in 2023.

1.6 Research Definitions:

- **Digital Marketing:**

Digital marketing is the marketing of products or services with the help of modern technology. It is also called electronic marketing or internet marketing, which includes product and customer data in digital form (Bhole, Verma, 2018, P 61).

It is a marketing method that promotes products and services by relying on the Internet and digital technology such as computers and smart phones that rely on newer, faster and more effective marketing strategies than traditional marketing strategies (Kumar, et al., 2021, P 252).

- **Pharmaceutical Digital marketing:**

It is the digital marketing of pharmaceuticals across medical sectors such as Pharmacists, hospitals, patients, sales and all healthcare service providers (Bhole, Verma, 2018, P 61).

It is the management process that works to identify the needs of customers of pharmaceutical products and work to meet their needs faster and better than traditional methods. Pharmaceutical digital marketing also keeps Pharmacists as well as the public informed about new brands and products (Kumar, et al., 2021, P 251).

CHAPTER 2

Chapter II

Literature Review

During this chapter, previous studies that dealt with research variables will be presented, in order to identify the results of previous researchers and to stand on the results reached in the subject of the research, as follows:

2.1. Literature Review

1. Study of (Mackey, Ling, 2013), titled: Pharmaceutical digital marketing and governance: illicit actors and challenges to global patient safety and public health

The study aimed to identify the risks that patients are exposed to from illegal online pharmacies. The study also aimed to identify the challenges of governance and combating cybercrime in online pharmacies. The study also aimed to identify the governance of digital marketing of electronic pharmacies. To achieve this, the study relied on the qualitative approach in presenting the study variables, based on a large number of literature and previous studies. The study concluded that there is a large spread of digital marketing of pharmaceutical products via the Internet, which has caused many patients to be exposed to fraud. The study also concluded the importance of addressing cybercrime and focusing on electronic health governance in order to reduce fraud opportunities.

2. Study of (Parekh, et al., 2016), titled: Digital Pharmaceutical Marketing: A Review

This study aimed to identify the types of pharmaceutical digital marketing and to identify the current situation of pharmaceutical digital marketing and the challenges facing pharmaceutical digital marketing. To achieve this, the study relied on the quantitative method. Primary data was

collected through conducting an opinion poll on 119 companies in the pharmaceutical sector, and secondary data was collected from previous studies and literature. The study reached a number of results, which are represented in the fact that about 92% of the respondents were dissatisfied with the application of digital technology in marketing. The study also found that the most important challenge facing companies is the adoption of digital technologies in companies, as 82% of the sample faced this from the survey. Also, 75% of companies identified budget as the biggest challenge facing pharmaceutical digital marketing. Also, about 73% of all companies suffer from the absence of a digital strategy in the workplace. The study also found that there are many types of pharmaceutical digital marketing, which are search engine optimization, social media marketing, pay for click ads and e-mail newsletters.

3. Study of (Lad, et al., 2017), titled: Digitalize Pharmaceutical Marketing: Medical Representative Perspective

The study aimed to identify pharmaceutical digital marketing, and the study aimed to identify the factors affecting pharmaceutical digital marketing, such as electronic details, participation portals, and social networking sites. The study was conducted in order to understand and determine the medical representative's perception towards pharmaceutical digital marketing. To achieve this, the study relied on the quantitative approach in presenting the study variables. Secondary data was collected from books, articles and references that dealt with the variables of the current research. The questionnaire was also used as a means of collecting primary data from the study sample. The questionnaire was applied to a sample of 100 Pharmacists in public hospitals and private clinics in India. The results of the study were analyzed through a set of charts, tables and graphs that express the results of the study. The study found an increase in the rates of pharmaceutical digital marketing, and it is relying on many digital channels such as participation

portals, web conferencing systems, e-mail marketing, and other means. The study also found that there are a number of challenges facing pharmaceutical digital marketing, including how to use new channels to interact with Pharmacists in an economical way. Also, the adventure of pharmaceutical companies in digital technology may cause the loss of a lot of data. Therefore, the study recommended the importance of benefiting from technological development, with an emphasis on saving data.

4. Study of (Jawaid, Ahmed, 2018), titled: Pharmaceutical Digital Marketing and Its Impact on Healthcare Pharmacists of Pakistan: A National Survey

This study aimed to identify how to replace traditional marketing strategies with digital marketing in the pharmaceutical industry. This study also aimed to assess various aspects of the use of social media by Pharmacists and healthcare providers in Pakistan. The study also aimed to identify the role of digital marketing in the pharmaceutical industry and its impact on changing clinical practice. To achieve this, the study relied on the quantitative approach by conducting a survey of a group of Pharmacists who work in different clinical environments, starting from five years of experience. The opinion poll was carried out on social media platforms. The study sample included about 718 Pharmacists. The study reached a set of results, most notably that the (WhatsApp) application was the most used for medical purposes. The study also found an increase in the possibility of digital marketing of medicines through social media platforms, which have a great role for Pharmacists and health care providers in Pakistan.

5. Study of (Zare, Vilys, 2019), titled: Digital marketing strategy formation for pharmaceutical companies

The study aims to design a digital marketing strategy capable of achieving customer engagement and satisfaction. The study also aims to structure a digital marketing strategy for pharmaceutical companies. The study aims to identify digital marketing standards based on the interaction of followers and customers. To achieve this, the study relied on the quantitative approach by analyzing the results through the following tools (AHP) and (TOPSIS) in order to analyze the contents of digital marketing through social media platforms. The study reached a set of results, the most important of which is the effectiveness of the proposed model in pharmaceutical digital marketing, which is reliance on social media platforms. The study also concluded that there is an urgent need for change in pharmaceutical digital marketing models due to the lack of pharmaceutical digital marketing strategies used.

6. Study of (Ben Said, et al., 2020), titled: Prevalence and Perceived Effectiveness of Pharmaceutical Digital Marketing among Community Pharmacies in Saudi Arabia: A Cross-Sectional Questionnaire-Based Survey

This study aimed to analyze direct digital marketing techniques to consumers in terms of the effectiveness of dissemination. The study also aimed to identify the most effective digital marketing tools to achieve the marketing of pharmaceutical products. To achieve this, the study relied on the quantitative approach in presenting the study variables. The study was applied to drug sales representatives, pharmacists, and consumers. Questionnaires and personal interviews were relied on face to face or through the web program (Sphinx Python). The study reached a set of results that proved that social networks and chat messengers are the most effective in terms of marketing communications. The study also provided a better understanding of digital platforms

that are often used as a means of direct pharmaceutical marketing and are seen as some of the most effective digital marketing tools in Saudi Arabia.

7. Study of (Bharskar and Siddheshwar, 2020), titled: Digital Marketing In Pharmaceutical Sector.

This study aims to identify the types of pharmaceutical digital marketing and identify the most prominent challenges facing pharmaceutical digital marketing, in addition to identifying the most prominent strategies used in pharmaceutical companies that contribute to increasing the opportunities for pharmaceutical digital marketing that can be followed. To achieve this, the study relied on the qualitative approach in presenting the study variables, based on many literatures and previous studies. The study reached many results, including the existence of many types of pharmaceutical digital marketing, including search engine optimization, pay per click ads, e-mail newsletters, social media marketing, E – Detailing and e-CMEs (electronic continuing medical education) / Webinars. The study also found that there are many challenges facing pharmaceutical digital marketing, which are inadequate organization vision, lack of digital minds, digital disaster, strict regulations and poorly maintained websites. The study also found that there are many strategies that are used in pharmaceutical digital marketing, which are Introducing mobile apps, Collaborative business model, sharing data on population studies, ensure IT support, create a new digital marketing organizational structure, business partners and (HCPs) patient and healthcare provider services.

8. Study of (Alyahya, et al., 2020), titled: Impacts of Digital Marketing on the Pharmacies Community in Saudi Arabia and Determining the Future Model of the Industry: A Cross-Sectional Questionnaire-based Study

This study aimed to identify the impact of digital marketing on the pharmaceutical community in the Kingdom of Saudi Arabia, and the study aims to build a future model for the pharmaceutical industry in the Kingdom of Saudi Arabia. To achieve this, the study relied on the quantitative approach in presenting the study variables through a group of previous literature, in addition to relying on the questionnaire as a tool for data collection. The study reached a set of results, the most important of which are: Customers rely on the web to obtain web services more than other marketing methods or even social media. The study also found the effectiveness of electronic meetings via the Internet through more than 36 out of 51 pharmaceutical companies. The study also found the effectiveness of social media conversations in pharmaceutical marketing and that it can be relied upon due to its performance effectiveness.

9. Study of (Ngamvichaikit, 2021), titled: Leveraging Design Thinking for Pharmaceutical Digital Marketing

This study aimed to identify digital marketing strategies in developing countries such as Thailand. The study also aimed to identify appropriate ways to reach the consumer and introduce the advantages of pharmaceutical products. The study also aimed to identify the regulations and laws of current pharmaceutical marketing, in addition to that the study aims to identify whether there is a conflict among pharmaceutical marketers between product effectiveness and ethical values. The study also seeks to build an optimal model for pharmaceutical digital marketing. To achieve this, the study followed the quantitative approach through a survey of opinion applied to pharmaceutical companies in Thailand. The study reached several results, which are represented

in the fact that the current regulations are highly complex and emotional, and there is a need for digital sources of information about medicines, as the current sources lack the required credibility, and pharmaceutical digital marketing needs the supervision of government agencies. The study also found that there are 4 areas of pharmaceutical digital marketing, which are represented in the electronic regulation control platform, the development of electronic information sources for drugs, and electronic consultation with health care professionals.

10. Study of (Bin Sawad, Turkistani, 2021), titled: Pharmaceutical Marketing Transformation due to COVID-19 Pandemic

This study aimed to identify the changes and transformations that pharmaceutical companies have followed due to Covid-19. The study also aimed to identify the most prominent strategies used by pharmaceutical companies in order to achieve the greatest benefit from digital marketing. To achieve this, the study relied on the qualitative approach in presenting the study variables through a narrative review of many articles that were collected from multiple electronic databases. The study reached many results, including that pharmaceutical companies made many changes to marketing strategies and turned to digital marketing more than traditional marketing strategies. The study also found that pharmaceutical companies rely on many digital marketing methods, such as telemarketing through social networking sites. The study demonstrated the success of the shift from traditional marketing strategies to digital marketing of pharmaceutical products.

11. Study of (Rasal, et al., 2021), titled: Digital Pharma Marketing

This study aimed to identify the types of digital marketing and the challenges it faces and strategies that can be implemented in order to improve and develop digital marketing in general and electronic marketing of drugs in particular. The study also aimed to identify the nature of digital marketing pursued by companies of the present time and what are the proposed plans for the future. To achieve this, the study relied on the qualitative approach in presenting the study variables by relying on presenting the literature that dealt with the study variables, and then presenting a set of results, proposals and recommendations. The study concluded that there are many types of digital marketing such as search engine optimization, pay for ads and social media, in addition to email marketing. The study also found that digital marketing of medicines through social networking sites is one of the most widely used types of marketing. The study concluded that the lack of a clear vision for pharmaceutical companies that focus on digital marketing is one of the most important challenges facing digital marketing of medicines.

12. Study of (Kumar, et al., 2021), titled: Impact of Digital Marketing on Pharmaceutical Sector Growth in India.

The study aimed to identify the best methods of drug marketing in the Corona pandemic with regard to health care providers in general. The study also aimed to identify the most effective means of marketing in the pharmaceutical industry. The study also aimed to identify the most effective digital marketing methods in the pharmaceutical field that are appropriate to the current situation as well as in the future, in addition to identifying the challenges facing digital marketing in the pharmaceutical industry. To achieve this, the study relied on the descriptive analysis method in presenting the study variables. The application was applied to a sample consisting of (50) Pharmacists and (30) medical representatives. The study reached a number of results, which are

represented in the fact that Pharmacists prefer digital marketing in its various forms, as it saves Pharmacists' time. The study also found the Pharmacists' desire to change the traditional marketing strategies used by pharmaceutical companies and adopt digital marketing.

13. Study of (Gupta, et al., 2023), titled: Antecedents of Pharmaceutical Digital Marketing Challenges and opportunities: A Descriptive Research Design

This study aimed to study the facilitating factors to overcome the challenges facing pharmaceutical digital marketing, and the study aims to identify the role of pharmaceutical digital marketing in the medical environment. The study also aimed to suggest the best practices that must be followed in order to achieve a competitive advantage in the field of pharmaceutical digital marketing in India. To achieve this, the study relied on the quantitative approach by relying on the questionnaire as a data collection tool. The questionnaire was distributed to a sample of 50 undergraduate and graduate students. Descriptive statistics and conclusions such as ANOVA, standard deviation, and Chi-Square test were relied upon. The study found the effectiveness of social media platforms such as WhatsApp, Twitter, Instagram, and others, as these platforms contribute to interacting with customers quickly and effectively. The study also found the possibility of generalizing the results of the research, which in turn contributes to the promotion of pharmaceutical digital marketing strategies inside or outside India

2.4. Hypothesis

H₁: There is a statistically significant effect at the significance level ($\alpha \leq 0.05$) of pharmaceutical digital marketing on healthcare Pharmacists in healthcare institutions in Saudi Arabia.

CHAPTER 3

CHAPTER 3

THE METHODOLOGY

During this chapter, the methodology of the study that was followed during the research will be presented by presenting the methodology used as well as a description of the sample that was applied to it, in addition to a comprehensive and accurate description of the tool that was used and the method used in its preparation and displaying the extent of its validity and reliability, in addition to clarifying the statistical methods and treatments used. It was mainly relied upon in analyzing the hypotheses of the study in order to reach reliable scientific results.

3.1. Research Approach

This study was conducted to answer the questions that were raised, and therefore the study relied on the quantitative approach in order to study pharmaceutical digital marketing and its impact on health care Pharmacists in the Kingdom of Saudi Arabia.

3.2. Research Design

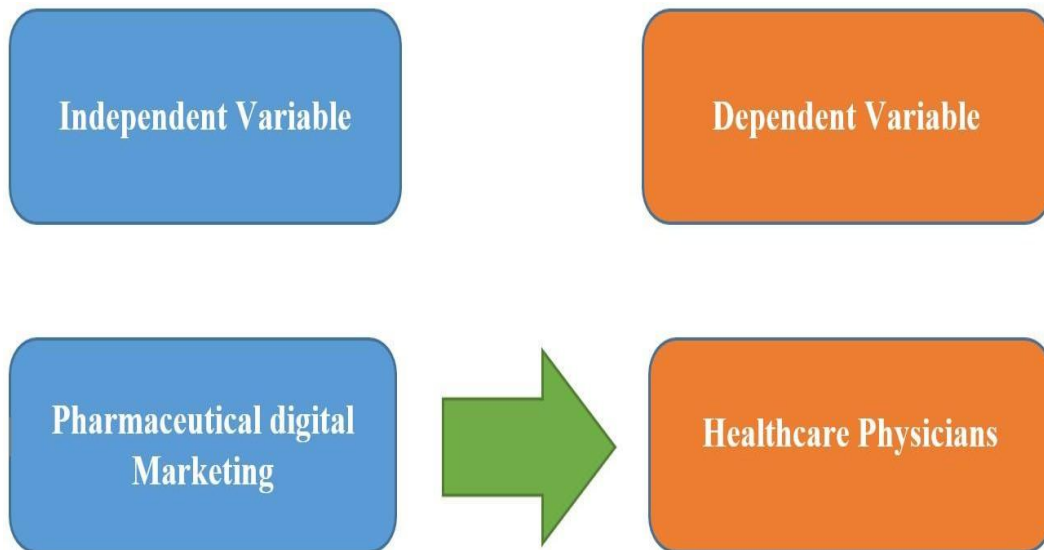


Figure (1.1): Research Framework

From the previous figure, it is clear to see the research variables can be mentioned as the following:

- **Independent variable:**
The independent variable of the research is represented in pharmaceutical digital marketing.
- **Dependent Variable:**
The dependent variable of the research is represented in healthcare Pharmacists.

3.3 The Research Sample

The random sampling method was used to select the study sample. Where the questionnaire was applied electronically via social networking sites to obtain the study sample, and the study sample consisted of (104) individuals from Pharmacists and pharmacists in the Kingdom of Saudi Arabia, and the following table shows the characteristics of the sample:

Table (1) Showing the Characteristics of the research sample

Characteristics	Sub Characteristics	N	%
Age	25 to 35	31	29.8
	36 to 45	64	61.5
	46 To Above	9	8.7
Gender	Male	25	24
	Female	79	76
Educational	High	34	32.7
	Master	54	51.9
	Doctorate	16	15.4

Seniority at work	less than 5 years	51	49
	From 5 to 10 years	45	43.3
	From 11 to 15 years	8	7.7
Total		104	100%

3.4. Tools

3.4.1. Tool Description

The study tool consisted of a questionnaire applied electronically, and the questionnaire consisted of two main parts:

- The first part: contains the basic data of the study sample.
- The second part: related to the items of the questionnaire, and it was divided into Four sub-axes, as follows:

1. What is the reality of applying pharmaceutical digital marketing in Saudi Arabia? It consists of 5 items.
2. What is the importance of applying pharmaceutical digital marketing in the field of healthcare in the Kingdom of Saudi Arabia? It consists of 5 items.
3. What are the challenges facing the application of pharmaceutical digital marketing in the field of healthcare in Saudi Arabia? It consists of 5 items.
4. What is the impact of pharmaceutical digital marketing on healthcare Pharmacists in Saudi Arabia? It consists of 5 items.

The questionnaire will be used in order to collect data through the five-point Likert scale, which can be expressed through the following table:

Table (2) the five- point Likert scale

Term	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Answer degree	5	4	3	2	1

3.4.2. The validity:

Internal consistency was used to measure the validity of the tool, by measuring the consistency of each item of the questionnaire with the axis to which it belongs; The following table shows the results of the validity coefficient:

Table (3) shows the results of the correlation coefficient for the validity of the tool.

Axis1		Axis2		Axis3		Axis4	
N	correlation coefficient	N	correlation coefficient	N	correlation coefficient	N	correlation coefficient
1	0.62**	1	0.57**	1	0.64**	1	0.46**
2	0.59**	2	0.55**	2	0.60**	2	0.69**
3	0.58**	3	0.68**	3	0.63**	3	0.71**
4	0.59**	4	0.63**	4	0.70**	4	0.75**
5	0.55**	5	0.65**	5	0.70**	5	0.69**

****At the significance level 0.01**

It is clear from this table that all items have a correlation coefficient ranging between (0.46: 0.75), and all of them were a function at the level of significance (0.000), which indicates that the questionnaire has a high validity coefficient.

3.4.3. The reliability:

In order to calculate the reliability of the tool, Cronbach's coefficient was used, and the results showed:

Table (4) shows the results of Cronbach's alpha coefficient for the reliability of the tool.

Axis	Number of items	Axis reliability
Axis 1	5	0.72
Axis 2	5	0.75
Axis 3	5	0.76
Axis 4	5	0.77

The value of the correlation coefficient for all axes was (0.72: 0.77), and this indicates that the questionnaire has a reliability coefficient.

3.5. Study Procedures

In the beginning, the questionnaire was designed by looking at the previous studies on the subject of the research, and through the theoretical frameworks that were collected. After designing the questionnaire, it was presented to a number of arbitrators, and the necessary amendments were made through deletion and addition.

Then both the validity and reliability criteria of the tool were calculated. After that, the questionnaire was prepared electronically and distributed the use of social networking sites such as Facebook and WhatsApp, and after application, data were collected in order to reach reliable scientific results.

3.6. The Statistical Methods

The data collected from the sample were entered using the program (SPSS-V.22). The statistical methods that were used to process the data varied, including:

- Cronbach's Alpha coefficient to ensure consistent performance.
- Use frequencies and percentages to determine the significance of the sample's responses to the questionnaire items.
- Correlation coefficient for the calculation of honesty.
- Regression analysis.

CHAPTER 4

CHAPTER 4

ANALYSIS AND RESULTS

By applying the research tools to the sample, a number of data were obtained, which were analyzed in order to reach the following statistical results:

4.1. Results of the first question:

Both means and standard deviations were used in order to identify the reality of the application of pharmaceutical digital marketing in the Kingdom of Saudi Arabia, and the results showed:

Table (5) shows the results of the first question

N	items	Mean	S.D	Rank
1	The Kingdom of Saudi Arabia tends to rely on pharmaceutical digital marketing in light of the development witnessed by the country.	3.93	.661	1
2	The Kingdom of Saudi Arabia relies on pharmaceutical digital marketing through social media platforms, as it is the most popular and used in the Kingdom.	3.78	.816	2
3	Pharmaceutical institutions in the Kingdom still rely on traditional pharmaceutical marketing strategies, despite the available modern technology.	3.46	.872	4
4	Pharmaceutical digital marketing organizations rely on a limited number of pharmaceutical digital marketing strategies such as social networking sites and emails.	3.29	.956	5

5	Pharmaceutical digital marketing organizations avoid relying on (Pay Per Click Ads) and (Search engine optimization) strategies, as they are incomprehensible to Pharmacists and users.	3.69	.908	3
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It is clear from the previous table the results of the research sample's responses to the first axis of the questionnaire, which is concerned with measuring "the reality of the application of pharmaceutical digital marketing in the Kingdom of Saudi Arabia"; Where it was found that item (1) which stipulated "The Kingdom of Saudi Arabia tends to rely on pharmaceutical digital marketing in light of the development witnessed by the country." The highest arithmetic mean (3.93) and standard deviation (0.661) were obtained, followed by item (2), which stated: "The Kingdom of Saudi Arabia relies on pharmaceutical digital marketing through social media platforms, as it is the most popular and used in the Kingdom." With an arithmetic mean value of (3.78), and a standard deviation of (0.816).

Hence, the results of the research indicate that the reality of the application of digital marketing for pharmaceutical preparations in Saudi Arabia indicates that the Kingdom is taking rapid and advanced steps towards the Kingdom's dependence on digital marketing for pharmaceutical preparations, keeping pace with the developments taking place in the country, activating the Kingdom's pharmaceutical digital marketing through social media platforms.

Results of the second question:

Both means and standard deviations were used in order to identify the importance of applying pharmaceutical digital marketing in the field of healthcare in the Kingdom of Saudi Arabia, and the results showed:

Table (6) shows the results of the second question

N	items	Mean	S.D	Rank
1	Pharmaceutical digital marketing strategies contribute to defining the vision and directions of pharmaceutical companies and strengthening the strengths of the organization.	3.58	.799	1
2	Pharmaceutical digital marketing strategies increase profit rates for pharmaceutical companies compared to traditional marketing strategies.	3.49	.862	4
3	Pharmaceutical digital marketing strategies facilitate access to Pharmacists and pharmacists, thus increasing the effectiveness of communication.	3.58	.852	2
4	Pharmaceutical digital marketing strategies contribute to achieving customer satisfaction by introducing product features and the ability to solve problems quickly and accurately.	3.44	1.011	5
5	Pharmaceutical digital marketing strategies enhance access to a large segment of clinicians, customers and users.	3.50	.917	3

It is clear from the previous table the results of the research sample's responses to the second axis of the questionnaire, which is concerned with measuring "the importance of applying pharmaceutical digital marketing in the field of healthcare in the Kingdom of Saudi Arabia.";

Where it was found that item (1) which stipulated “Pharmaceutical digital marketing strategies contribute to defining the vision and directions of pharmaceutical companies and strengthening the strengths of the organization.” It obtained the highest mean with a value of (3.58) and a standard deviation of (0.799), followed by Item (3), which stipulated “Pharmaceutical digital marketing strategies facilitate access to Pharmacists and pharmacists, thus increasing the effectiveness of communication.” With an arithmetic mean value of (3.58) and a standard deviation of (0.852), then followed by item (5), which stipulated "Pharmaceutical digital marketing strategies enhance access to a large segment of clinicians, customers and users." With an arithmetic mean value of (3.50), and a standard deviation of (0.917).

Hence, the results of the research indicate that the importance of applying pharmaceutical digital marketing in the field of health care in the Kingdom of Saudi Arabia lies in the fact that it contributes to defining the vision and directions of pharmaceutical companies and strengthening the strengths of the organization, through which it facilitates access to Pharmacists and pharmacists, and then increases communication, enhances Reach the largest segment of Pharmacists, customers and users.

Results of the third question:

Both means and standard deviations were used in order to identify the challenges facing the application of pharmaceutical digital marketing in the field of healthcare in Saudi Arabia, and the results showed:

Table (7) shows the results of the third question

N	items	Mean	S.D	Rank
1	The lack of clarity of the organization's vision makes it difficult to implement pharmaceutical digital marketing strategies.	3.38	.784	5
2	The pharmaceutical sector lacks a skilled workforce capable of implementing pharmaceutical digital marketing strategies.	3.73	.757	1
3	Pharmaceutical institutions rely on outdated sites that do not keep pace with the modern developments that the world is witnessing at the present time, and thus they suffer from reaching a larger number of users of modern technology.	3.50	.906	4
4	The country's laws and regulations make it difficult to implement pharmaceutical digital marketing strategies.	3.55	.825	2
5	Relying on many pharmaceutical digital marketing strategies exposes organizations to electronic fraud.	3.55	.947	3

It is clear from the previous table the results of the research sample's responses to the third axis of the questionnaire, which is concerned with measuring "the challenges facing the application of pharmaceutical and digital marketing in the field of healthcare in Saudi Arabia."; Where it was

found that item (2) which stipulates “The pharmaceutical sector lacks a skilled workforce capable of implementing pharmaceutical digital marketing strategies.” It obtained the highest arithmetic mean (3.73) and a standard deviation (0.757), followed by item (4), which stated "The country's laws and regulations make it difficult to implement pharmaceutical digital marketing strategies." With an arithmetic mean value of (3.55) and a standard deviation of (0.825), then followed by item (5), which stipulates “Relying on many pharmaceutical digital marketing strategies exposes organizations to electronic fraud.” With an arithmetic mean value of (3.55), and a standard deviation of (0.947).

Hence, the results of the research indicate that one of the challenges facing the application of digital pharmaceutical marketing in the field of health care in the Kingdom of Saudi Arabia is the lack of a skilled workforce in the pharmaceutical sector capable of implementing digital marketing strategies for pharmaceutical products, the regulations and laws set by the state that make it difficult to implement Pharmaceutical digital marketing strategies, relying on many pharmaceutical digital marketing strategies that cause organizations to be exposed to electronic fraud.

Results of the fourth question:

Table (8) showing the result of t-test

Total	t	df	Sig	Mean	Lower	Upper
	59.43	102	0.000	17.45	16.86	18.03

It is clear from the previous table that there is an effect of pharmaceutical digital marketing on health care Pharmacists in the Kingdom of Saudi Arabia, where the value of t (59.43), was at the level of significance (0.000), and then the hypothesis is accepted.

Table (9) shows the impact of pharmaceutical digital marketing on healthcare physicians

N	items	Mean	S.D	Rank
1	Pharmaceutical digital marketing strategies affect drug production rates and the profitability of pharmaceutical institutions.	3.55	.753	2
2	Pharmaceutical digital marketing strategies play in enhancing the ability of pharmaceutical companies to communicate with a large number of customers and Pharmacists.	3.36	.827	5
3	Pharmaceutical digital marketing strategies affect customer behavior and increase demand for pharmaceutical products.	3.52	.989	3
4	Pharmaceutical digital marketing strategies do not affect the directions and vision of management, and thus their impact on the success of pharmaceutical companies in the labor market is less.	3.49	.959	4
5	Pharmaceutical digital marketing strategies affect Pharmacist prescribing rates and increase the productivity of pharmaceutical organizations.	3.56	.904	1

It is clear from the previous table the results of the research sample's responses to the fourth axis of the questionnaire, which is concerned with measuring "The impact of pharmaceutical digital marketing on healthcare Pharmacists in the Kingdom of Saudi Arabia".; Where it was found that item (5) which stipulated "Pharmaceutical digital marketing strategies affect Pharmacist

prescribing rates and increase the productivity of pharmaceutical organizations.” It obtained the highest arithmetic mean with a value of (3.56) and a standard deviation of (0.904), followed by item (1), which stipulated “Pharmaceutical digital marketing strategies affect drug production rates and the profitability of pharmaceutical institutions.” With an arithmetic mean value of (3.55) and a standard deviation of (0.753), then followed by item (3), which stipulated “Pharmaceutical digital marketing strategies affect customer behavior and increase demand for pharmaceutical products.” With an arithmetic mean value of (3.52), and a standard deviation of (0.989).

Then the results of the research indicate that there is an impact of pharmaceutical digital marketing on health care Pharmacists in the Kingdom of Saudi Arabia, as it affects the rates of drug prescription for the doctor, and it increases the productivity of pharmaceutical institutions, and increases drug production rates and the profitability of pharmaceutical institutions. Affect customer behavior and increase demand for pharmaceutical products.

CHAPTER 5

CHAPTER 5

DISCUSSION AND CONCLUSION

This chapter deals with the discussion of the results reached through this research with the results of previous researchers, as well as presenting the difficulties that the researcher encountered during conducting the research, and the recommendations and research proposals for the benefit of subsequent researchers.

5.1. Discussion

Through the application of this research, the results showed that the reality of the application of digital marketing for pharmaceutical preparations in the Kingdom of Saudi Arabia indicates that the Kingdom is taking rapid and advanced steps towards the Kingdom's dependence on digital marketing for pharmaceutical preparations, keeping pace with the current developments. place in the country, and activating the digital marketing of pharmaceutical products in the Kingdom through social media platforms. This result is consistent with the findings of (Mackey, Ling, 2013) and (Lad, et al., 2017) studies, who indicated that there is a large spread of digital marketing of pharmaceutical products. Online. The results of the research also showed that the importance of applying pharmaceutical digital marketing in the field of health care lies in the fact that it contributes to defining the vision and directions of pharmaceutical companies and enhancing their strengths, through which it facilitates access to Pharmacists and pharmacists, and then increases communication, and enhances access to the largest segment from Pharmacists, customers and users.

The results of the research indicated that one of the challenges facing the application of digital drug marketing in the field of health care in the Kingdom of Saudi Arabia is the lack of a skilled workforce in the pharmaceutical sector capable of implementing digital marketing

strategies for pharmaceutical products and the regulations and laws set by the state that make it difficult to implement marketing strategies. Pharmaceutical digital marketing, relying on several pharmaceutical digital marketing strategies that cause organizations to be exposed to electronic fraud, and this result is consistent with the study (Bharskar and Siddheshwar, 2020), which indicated that there are many challenges facing digital pharmaceutical marketing, strict regulations, insufficient Organizational vision, poor website maintenance.

The research also found that there is an effect of digital drug marketing on health care Pharmacists in the Kingdom of Saudi Arabia, where the t value was (59.43) at the significance level (0.000); And that is by influencing the rates of prescribing drugs to the doctor, increasing the productivity of pharmaceutical institutions, increasing drug production rates and the profitability of pharmaceutical institutions, as well as influencing customer behavior and increasing demand for pharmaceutical products.

5.2. Conclusion

In this research, the effect of relying on digital drug marketing on Pharmacists and health care providers in the Kingdom of Saudi Arabia was studied. Its effect on health care was determined by applying it to a sample of 104 Pharmacists and pharmacists working in the field of health care in the Kingdom of Saudi Arabia.

This research sheds light on the impact of digital marketing on the healthcare industry, particularly on Pharmacists and healthcare providers in Saudi Arabia. The results indicate that digital marketing has become an essential tool for pharmaceutical companies to promote their products and to enhance communication with healthcare professionals and customers.

Despite these challenges, the study shows that digital marketing has a significant impact on healthcare providers, including increasing productivity, profitability, and demand for pharmaceutical products. The results of this research contribute to understanding the current state of digital marketing in the pharmaceutical industry and provide important insights for subsequent researchers to further investigate this topic. It is recommended that pharmaceutical companies invest in digital marketing strategies to address these challenges and continue to improve their impact on healthcare providers and patients

5.3. Managerial Relevance

The administrative relevance of this research is evident through the benefit of the owners of companies and pharmaceutical institutions from identifying the reality of digital pharmaceutical marketing in the Kingdom of Saudi Arabia and the challenges it faces and then working to improve it in order to advance the pharmaceutical industry within the Kingdom, as well as identifying the extent of the impact of digital marketing of medicines on health care Within the Kingdom, which greatly contributes to the knowledge of pharmaceutical companies and their employees about ways in which drug production rates can be increased.

5.4. Scientific Implications

The scientific implications of this research are evident by shedding light on the digital marketing of pharmaceutical products, as well as through this research the pros and cons of digital marketing of pharmaceutical products were identified, and the most prominent problems facing pharmaceutical digital marketing were also identified, and through this research researchers can Later participants will learn about the theoretical framework of pharmaceutical digital marketing in order to achieve a better understanding of the concept and research its impact on the marketing of pharmaceutical products.

5.5. Limitations and Scope for Future Research

During this research, the quantitative approach was relied upon, which had many advantages, including accuracy in the results and its ability to test and examine, as anyone can repeat this test and reach close results, which made this methodology more reliable, but one of the disadvantages of the chosen methodology is the large number of data and mathematical numbers that may the searcher's attention is distracted from its entry.

Also, during this research, it was easy to access scientific sources and thus collect information about the research variables, but this research took a period of time in order to apply it to the research sample.

5.6. Research Recommendations

1. **Through conducting this research, a number of recommendations were reached, including:**
2. Pharmaceutical companies within the Kingdom of Saudi Arabia must follow a number of digital marketing strategies for products through social media platforms in order to increase productivity and then profitability.
3. Pharmaceutical companies seek the assistance of a number of skilled workers who have the ability to make the most of the digital marketing of pharmaceutical products.
4. The government must draft laws and regulations that facilitate the marketing of pharmaceutical products.
5. A study of the effect of digital pharmaceutical shopping on the purchase intention of customers in the Kingdom of Saudi Arabia.
6. Studying the factors that contribute to increasing drug production rates among pharmaceutical companies in the Kingdom.

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Appendix

Dear pharmacist,

In this, the researcher seeks to study **“Pharmaceutical digital marketing and its impact on healthcare Pharmacists in Saudi Arabia”** in order to obtain a master's degree. The research is based on four questions; these questions will be answered through your selections on the terms of questionnaire. Terms of this questionnaire are very important in achieving the desired goals of the study. Therefore, your contribution to conducting this questionnaire through your practical experience by answering the questionnaire items clearly and impartially has its own appreciation. This will contribute to reach reliable scientific results, and it must be emphasized that your answers will be in strict confidentiality as it will be used for the sake of the study Scientific only.

Thank you.

1. Demographic data

Please answer the following questions

Age:			
Gender:			
Department:			
Educational level:	High education	Master degree	Doctorate degree
Seniority at work:	less than 5 years	From 5 to 10 years	From 11 to 15 years

2. Questionnaire terms

Please, mark with (✓) on your selection.

5. What is the reality of applying pharmaceutical digital marketing in Saudi Arabia?						
No	Term	Strongly agree	Agree	Neutral	disagree	Strongly disagree
1	The Kingdom of Saudi Arabia tends to rely on pharmaceutical digital marketing in light of the development witnessed by the country.					
2	The Kingdom of Saudi Arabia relies on pharmaceutical digital marketing through social media platforms, as it is the most popular and used in the Kingdom.					
3	Pharmaceutical institutions in the Kingdom still rely on traditional pharmaceutical marketing strategies, despite the available modern technology.					
4	Pharmaceutical digital marketing organizations rely on a limited number of pharmaceutical digital marketing strategies such as social networking sites and emails.					

5	Pharmaceutical digital marketing organizations avoid relying on (Pay Per Click Ads) and (Search engine optimization) strategies, as they are incomprehensible to Pharmacists and users.					
2.What is the importance of applying pharmaceutical digital marketing in the field of healthcare in the Kingdom of Saudi Arabia?						
1	Pharmaceutical digital marketing strategies contribute to defining the vision and directions of pharmaceutical companies and strengthening the strengths of the organization.					
2	Pharmaceutical digital marketing strategies increase profit rates for pharmaceutical companies compared to traditional marketing strategies.					
3	Pharmaceutical digital marketing strategies facilitate access to Pharmacists and pharmacists, thus increasing the effectiveness of communication.					
4	Pharmaceutical digital marketing strategies contribute to achieving customer satisfaction by introducing product features and the ability to solve problems quickly and accurately.					
5	Pharmaceutical digital marketing strategies enhance access to a large segment of clinicians, customers and users.					
3.What are the challenges facing the application of pharmaceutical digital marketing in the field of healthcare in Saudi Arabia?						
1	The lack of clarity of the organization's vision makes it difficult to implement pharmaceutical digital marketing strategies.					
2	The pharmaceutical sector lacks a skilled workforce capable of					

	implementing pharmaceutical digital marketing strategies.					
3	Pharmaceutical institutions rely on outdated sites that do not keep pace with the modern developments that the world is witnessing at the present time, and thus they suffer from reaching a larger number of users of modern technology.					
4	The country's laws and regulations make it difficult to implement pharmaceutical digital marketing strategies.					
5	Relying on many pharmaceutical digital marketing strategies exposes organizations to electronic fraud.					
4.What is the impact of pharmaceutical digital marketing on healthcare Pharmacists in Saudi Arabia?						
1	Pharmaceutical digital marketing strategies affect drug production rates and the profitability of pharmaceutical institutions.					
2	Pharmaceutical digital marketing strategies play in enhancing the ability of pharmaceutical companies to communicate with a large number of customers and Pharmacists.					
3	Pharmaceutical digital marketing strategies affect customer behavior and increase demand for pharmaceutical products.					
4	Pharmaceutical digital marketing strategies do not affect the directions and vision of management, and thus their impact on the success of pharmaceutical companies in the labor market is less.					
5	Pharmaceutical digital marketing strategies affect Pharmacist prescribing rates and increase the productivity of pharmaceutical organizations.					