Article

Measuring the dimensions of digital marketing in gaining customer satisfaction: A field study on customers of Jordanian pharmaceutical companies and distributors

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Abstract: This study aims to explore the relationship between online marketing dimensions and customer satisfaction within Jordanian companies and distributors. Utilizing a descriptive analytical methodology, the research focused on customers of Jordanian pharmaceutical companies and distributors. A survey was conducted using a questionnaire distributed to a target sample; out of 75 questionnaires, 61 were returned and valid, yielding a response rate of 81.3%. Data from the questionnaires were analyzed using AMOS and SPSS software. The findings indicated a statistically significant correlation between the collective dimensions of online marketing (attraction, engagement, retention, learning, and communication) and customer satisfaction. However, regression analysis showed no significant relationship between the individual dimensions of attraction, engagement, and retention with customer satisfaction. The study found that Jordanian pharmaceutical companies practice digital marketing at a high level, according to the sample responses. A key recommendation from the study is for pharmaceutical products to be promoted through various online marketing channels, including sponsored ads on social media and websites targeting both local and international audiences.

Keywords: digital marketing; customer satisfaction; pharmaceutical companies; Jordan

1. Introduction

The rapidly evolving business world and the challenges imposed by the virtual world have made Digital Marketing an essential part of daily purchasing behavior for individuals and organizations. Many production sectors have adapted to the digital world and its speed, but the pharmaceutical industries in Jordan have not been able to adapt as required compared to their competitors with electronic marketing (Alkufahy et al., 2023).

Many governments have faced problems marketing their products through the virtual world due to the non-acceptance of some health systems in many countries of the idea of marketing and distributing medicines through these technological tools. However, many governments have entrusted the issuance of laws regulating the work of pharmaceutical e-marketing in this technological age (Daoud et al., 2023). This is by using pharmaceutical companies for social media or electronic websites as a means of Digital Marketing to contribute to enabling customers to access producing companies and distributors through these electronic systems to buy pharmaceutical products (Taamneh et al., 2022).

The pharmaceutical and healthcare sectors have already undergone a digital transformation that has increased transparency and customer satisfaction in their customer communications. Despite the fact that Jordanian pharmaceutical firms and

distributors primarily rely on conventional marketing strategies, some firms and distributors are shifting to the use of electronic applications to increase customer satisfaction by offering deals on their products, as well as information and virtual advertising. This has helped them grow their market share (Alshare et al., 2020).

1.1. Study problem

The paper's main issue centers on the rapid development and extensive use of communication technology in the business world, which has become an essential part of our daily lives. This has prompted production sectors to quickly adapt to the digital world. However, Jordanian pharmaceutical companies and distributors in the pharmaceutical sector are still below the required level. There is a decrease in customer satisfaction with these companies for their ineffective use and adoption of Digital Marketing to understand customer requirements and compete with others in this vital sector (Al-Qeed et al., 2023). To accomplish the goal of this study, it is necessary to answer the following questions:

- Do Jordanian pharmaceutical companies and distributors, from the perspective of their customers, seek to effectively gain customer satisfaction?
- Do companies, distributors, and online marketing dimensions (attraction, engagement, retention, learning, and communication) seek to effectively gain customers?

1.2. Significance of the study

The significance of this study lies in its focus on Jordan's pharmaceutical sector, a critical pillar of the national economy. This research is essential because it examines how pharmaceutical companies and their distribution networks employ online marketing strategies to engage with their target audience, including businesses, competitors, and consumers. These strategies are crucial for achieving customer satisfaction and fostering loyalty, which are vital for repeat business. Moreover, effective online marketing contributes significantly to attracting new customers and maintaining competitive advantage.

The pharmaceutical industry's reliance on Digital Marketing; has become increasingly important, especially in today's digital age where consumer behaviors and preferences are rapidly evolving. This study aims to explore the extent to which Digital Marketing strategies impact consumer satisfaction and loyalty, and how these, in turn, influence the performance and growth of pharmaceutical companies in Jordan.

By analyzing the effectiveness of these marketing strategies, the research will provide insights into the best practices that pharmaceutical companies can adopt to enhance their customer engagement and overall market presence. Additionally, the study will investigate the role of Digital Marketing in expanding the customer base by reaching out to potential customers who may not be accessible through traditional marketing channels.

This research is particularly relevant given the growing importance of the pharmaceutical industry in Jordan's economy. It will contribute to the existing body of knowledge by highlighting the critical factors that influence consumer behavior in

the pharmaceutical sector and by suggesting practical solutions to enhance the effectiveness of marketing strategies employed by these companies.

1.3. Study objectives

The goals of this research are to:

- Examine the nature of the connection among internet marketing and customer satisfaction with Jordanian pharmaceutical companies and distributors.
- Determine the extent to which Digital Marketing dimensions have an impact and contribute in gaining consumer satisfaction with Jordanian pharmaceutical companies and distributors.

1.4. Study hypotheses

Considering the research problem and objectives, the hypotheses can be formulated as follows:

Main hypothesis

H01: There isn't any numerically important connection among online marketing dimensions (attraction, engagement, retention, learning, and communication) and customer satisfaction.

H01.1: There isn't any numerically important connection among attraction as one of the Digital Marketing dimensions and customer satisfaction.

H01.2: There isn't any numerically important connection among engagement as one of the Digital Marketing dimensions and customer satisfaction.

H01.3: There isn't any numerically important connection among retention as one of the Digital Marketing dimensions and customer satisfaction.

H01.4: There isn't any numerically important connection among learning as one of the Digital Marketing dimensions and customer satisfaction.

H01.5: There isn't any numerically important connection among communication as one of the Digital Marketing dimensions and customer satisfaction.

H02: There isn't any numerically important connection among Jordanian pharmaceutical companies and distributors, and Digital Marketing dimensions (attraction, engagement, retention, learning, and communication) in gaining customers.

1.5. Study model

Figure 1 presents the study model where the independent variable is a digital marketing and its dimensions are (attraction, engagement, retention, learning, communication), the dependent variable is customer satisfaction.
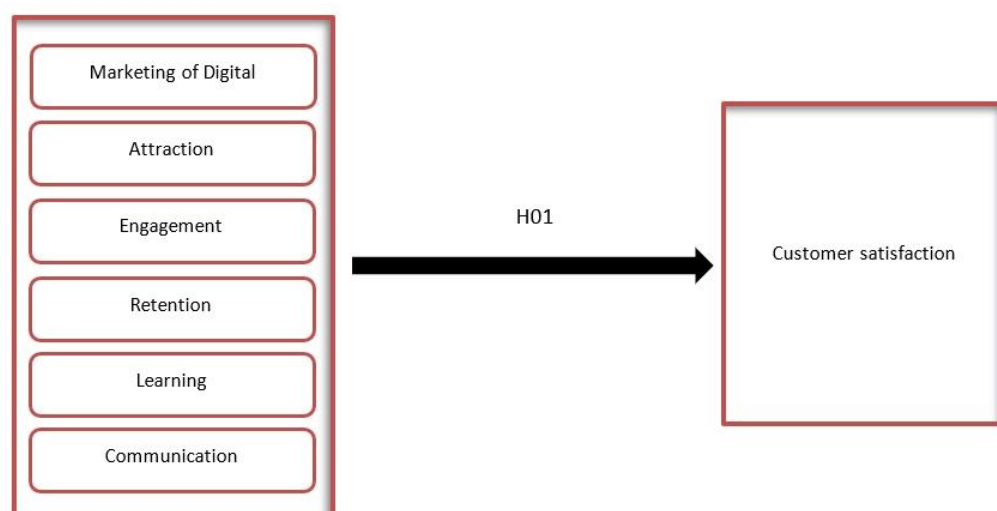
Figure 1. Study model.

2. This model was prepared by the researcher based on previous studies

Digital Marketing represents the integration of marketing strategies within both virtual and physical realms, aiming to bolster customer relationships through the strategic use of data and technology. This form of marketing utilizes information and communication technologies, such as artificial intelligence and social media platforms, to educate, engage, persuade, and activate customers (Krishen et al., 2021). Historically, marketing was confined to traditional channels, which were considered most effective until the advent of the internet and modern communication technologies ushered in a new era. Digital Marketing has revolutionized many established marketing paradigms and the dynamic between businesses and consumers. It enables organizations to reach their target audience at the optimal time and place, facilitating decisions at crucial moments through diverse channels like search engines, social networks, and mobile devices (Niculescu, 2019).

It is evident that chief sales officers prioritize Digital Marketing above all other considerations when evaluating new technologies in the contemporary digital era (Al-Maaitah et al., 2024). E-commerce transactions, involving the buying and selling of goods and services, occur on digital platforms where consumers and sellers interact electronically. This digital marketplace has seen significant growth, enhancing customer satisfaction and loyalty through expanded marketing efforts (Al Daabseh et al., 2023).

Digital Marketing is also described as the ensemble of communication methods and tools that augment the branding of products and services, creating value through digital interfaces such as websites, smartphones, and tablets. The internet serves as the main conduit for Digital Marketing, while digital media—comprising websites and mobile technologies—provides the tools for marketers to promote their offerings (Yahyawi, 2019).

The shift towards digital consumption patterns necessitates extensive research into digital transitions, as changes in consumer behavior and purchasing practices continue to evolve (Kanaan et al., 2023). Furthermore, studies have indicated that

effective Digital Marketing strategies can significantly influence a firm's performance and its success in the competitive marketplace (Alkufahy et al., 2023).

The importance of studying Digital Marketing: By keeping up with the digital trend, academics can assist firms in competing by studying Digital Marketing through the use of electronic media to advertise their goods and services. According to numerous research, learning about online marketing is important in the following ways (Mohamed, 2020).

- Reducing the costs of advertising, which is important for small and medium-sized companies.
- Choosing appropriate strategies to maintain focus and ensure the smooth flow of business activities and goals with the desired outcome.
- Encouraging internal and external communications and accurately delivering marketing messages to increase the effectiveness of the goods and services offered.
- To guarantee the effectiveness of the marketing process, offer a channel for interaction and connection with consumers.
- Overcoming traditional digital channels to reach customers quickly by expanding the scope of access and overcoming time and place constraints.
- Making it easier to quickly and affordably reach a large number of customers while researching their preferences and behavior histories.
- Engaging in dialogue to create a satisfying relationship with the brand.

2.1. The dimensions of digital marketing

Attraction: This serves as the foundation for customer connection because it calls for their voluntary visitation of the interactive application (website). In order to do this, users must draw users to the application, cultivate a following, remember the brand, and pay attention to commercials. Advertisements on websites, banners, or relevant links can help marketers draw in customers.

Engagement: Engagement occurs after attracting customers to the company's website and involving them in the marketing process and getting to know their opinions by communicating with them and understanding their perspectives and preferences in order to interact and contribute to completing the business process. Innovative programs provide interactive media tools of value to customers.

Communication: This dimension relates to the organization's communication with consumers to establish trust, construct relationships, and comprehend their needs and preferences. Client loyalty may be increased through communicating through several channels, such as social networking sites, chat sites, email, text messaging, and others.

Learning: It is a method used by marketers through interactive communication tools to obtain more data in terms of trends, behaviors, and positions, as well as highlighting the company's ability to invest in data and information provided by Digital Marketing to improve marketing performance and create a mental image for customers.

Retaining: It provides suitable and interactive content of value to develop relationships with customers. This dimension also refers to the organization's ability

to create long-term connections with existing consumers while also attempting to gain new ones, which triples the company's profitability as current customers become less price-sensitive, while also lowering marketing expenses.

Customer satisfaction: Organizations use it to assess customer satisfaction with the services and products they provide in order to make the required changes to make them more responsive to the demands and requirements of their consumers.

For digital markets, maintaining and gaining new customers has grown more crucial (Al Daabseh and Aljarah, 2021).

2.2. Digital marketing features

Traditional marketing relies on traditional activities that require some time to complete sales and purchases, compared to Digital Marketing that contributes to the speedy completion of sales transactions at the lowest possible cost. Al Daabseh and Aljarah (2021) noted that when businesses select the right marketing channel, using digital tools for marketing gives them a new dimension through the following:

A. Correspondence: Because digital channels demand visitors to the organization's website to supply detailed data about themselves, their requirements, and desires before making purchases, organizations that use the Internet have become capable of identifying their clients before they make purchases.

B. Interaction: This means communication between the organization that provides the products and the customer, and it enables the organization to directly know the clients' requirements and preferences.

C. Providing a database for each customer: Digital Marketing is a digital system capable of providing data and information to the organization about its customers, their needs, desires, and even their visit history, previous and current purchasing activities. This helps them use that information in organizing new marketing offers.

D. Customer control: The customer can check the information they provide to the organization without being obliged to share information that he or she does not wish to disclose.

E. Providing information to the customer: This means the customer's ability to have information about all the organization's products, and the ability to compare them with other competing organizations' products and prices.

2.3. Challenges and drawbacks of digital marketing

The use of online marketing techniques, especially in third-world countries, faces many difficulties and challenges. Anything new must have some criticisms and drawbacks, which must be addressed. Some of its negative aspects, according to Al-Shomli (2019), include:

- Contributing to an increase in unemployment rates among individuals in those societies due to the scarcity of available resources used in the production process, especially with the widespread using digital technology to take the place of people.

- The spread of poverty in many societies poses an obstacle to entering such markets.

- Financial aspects lack confidentiality and protection in developing countries.
- Insufficient guarantees to safeguard the rights of all parties involved.
- The urgent need for continuous development of systems and policies in the field of Digital Marketing in those societies.
- Its challenges include "regulatory challenges, high costs of creating websites, the development of website technology, language, culture, privacy, security, and lack of trust in electronic payment methods."

2.4. Pharmaceutical sector (pharmaceutical companies and their warehouses)

The significance of this research is anchored in the vital role that the pharmaceutical industry and its distribution networks play in supporting the Jordanian economy. These sectors are crucial not only for their direct economic contributions but also for their role in ensuring the distribution of essential health services across the region (Alkufahy et al., 2022). Furthermore, the incorporation of Digital Marketing strategies within these sectors is critical. Effective online marketing is essential for businesses to reach their target markets, manage competition effectively, and enhance customer satisfaction, which is instrumental in securing customer loyalty and expanding customer base through effective engagement (Al-Share, 2007).

This study is particularly relevant in Irbid for multiple reasons. The city's population surpasses two million, providing a substantial market for business operations (Alshare et al., 2020). Irbid is noted for its diverse climate, which makes it attractive for tourism and investment. The presence of five major universities adds to the city's potential as a hub for educational and research activities, thereby enriching its cultural and economic landscape (Alkufahy et al., 2022).

The choice of Irbid as the location for this project is strategic. The project site is uniquely situated on the city's highest peak, offering panoramic views that are unmatched in the region, an attribute that is significantly lacking in current hotel services in the area (Jordanian Pharmacists Association, 2022). This gap in the hospitality market presents a strategic opportunity for this project, which aims to introduce comprehensive hotel and residential services to meet both tourist and local needs.

The proposed development is an 11-story complex covering an area of 14,060 square meters on a strategically selected site that capitalizes on Irbid's topographical and infrastructural advantages (Alkufahy et al., 2022). The design incorporates diverse facilities, aiming to set a new standard in hospitality for the city. The proximity to three industrial cities and numerous educational institutions means the complex could serve as a crucial convergence point for business and academia, enhancing the economic and social dynamics of the region.

The integration of this complex into Irbid's urban fabric is anticipated to drive significant economic growth and enhance the city's profile as a key tourism destination. The project aligns with the city's climatic, educational, and cultural attributes, contributing to the sustainable development of the region and enhancing its stature in the national and international arenas (Alkufahy et al., 2022; Al-Share,

2007).

3. Method and procedure

Since descriptive analytical methods are best suited for research projects, they were used in this paper. In order to accomplish the researches goals, the researchers employed both primary data—represented by a questionnaire—and secondary data—represented by earlier research, sources, and references—both foreign and Arabic—including trustworthy scientific books, websites, published scientific journals, and peer-reviewed sources. The main source for developing the theoretical framework was secondary literature.

Population, sample, and study instrument

All customers of Jordanian pharmaceutical firms and warehouses made up the paper population, from which a random sample was taken. A questionnaire was given out to the 75 clients who made up the sample in order to gauge the paper's many dimensions. Nine surveys were rejected because they couldn't be statistically analyzed out of the 70 that were retrieved. Using statistical tools like SPSS AMOS, the analysis of 61 questionnaires with an 81.3% response rate was performed to obtain study results. The 31 phrases in the questionnaire measured the paper's dimensions and variables. The personal information and total number of survey items are summarized in **Table 1**.

Table 1. Questionnaire items.

Part 1: Demographic Characteristics		
Axis	**Number of Categories**	
Gender	2	
Age Category	4	
Marital Status	3	
Part 2: Independent and Dependent Variables		
Variable	**Number of Items**	**Item Numbers**
Attraction	4	4-1
Engagement	4	8-5
Communication	4	12-9
Retention	4	16-13
Learning	4	20-17
Customer Satisfaction	5	25-21

A Likert scale with five dimensions was used, comprising neutral, disagree, strongly disagree, agree, and severely disagree, to achieve the desired results of the paper.

Table 2 Shows The statistical criterion for interpreting the arithmetic means of the paper variables and determining their relative importance, where that the Low level is from (1 less than 2.33), Medium from (2.33 less than 3.66), and the high is

from (3.66–5).

Table 2. The statistical criterion for interpreting the arithmetic means of the paper variables and determining their relative importance.

Level	Period
Low	1 less than 2.33
Medium	2.33 less than 3.66
High	3.66–5

4. Data analysis and hypothesis testing

The data analysis and hypothesis testing have been introduced in Chapter 4. The chapter sheds light on the results of the data analysis collected from the paper sample, tests the hypotheses, and presents an analysis of the general information of the sample individuals. Additionally, it determines the mean and relative weight of respondents' responses to survey questions and verifies the accuracy of the data used to test the hypotheses. The chapter ends with a collection of statistical tests that are used to test the hypotheses.

Individual and employment-related info, of the paper sample includes three personal pieces of information, starting from gender, then age categories, and marital status of the sample individuals. **Table 3** shows the results of the analysis of personal data.

Table 3. Personal (demographic) data of the paper sample individuals.

	Variable	Frequency	Percentage (%)
	Male	40	65.6
Gender	Female	21	34.4
	Total	61	100
	Less than 25 years old	28	45.9
	25–35 years old	19	31.1
Age Category	36–45 years old	7	11.5
	46 years old and above	7	11.5
	Total	61	100
	Single	21	34.4
	Married	40	65.6
Marital Status	Other	-	-
	Total	61	100

The results from **Table 3** show that the gender category is not balanced, with a preference for males. The number of males in the sample is higher than females, with a representation rate of males among the sample individuals at 65.6%, while the females' representation rate is 34.4%. The age category of the paper sample was divided into four categories, from less than 25 years old to the oldest category of 46

years old and above. Most of the sample individuals were within the age category of less than 25 years old, with a representation rate of 45.9%. The lowest representation rate was in the age category of 36–45 years old and the category of 46 years old and above, with a representation rate of 11.5%. Regarding the marital status of the paper sample, the majority were married, with a representation rate of 65.6%, while the lowest representation rate was for the single category, with a representation rate of 34.4%.

To measure the dimensions of internet marketing in achieving customer satisfaction, the researcher relied on analyzing the paper sample individuals' responses to the survey items that measure the variables, indicating their opinions on their level of interest. The paper included independent and dependent variables, with the independent variable having five dimensions (attraction, engagement, retention, learning, and communication), all of which measure the Digital Marketing variable, while the dependent variable is customer satisfaction. The researcher used measures of central tendency, represented by the means, and measures of dispersion, represented by standard deviations.

Digital Marketing (the independent variable) to answer the first question:

As previously mentioned, it was measured through five dimensions, and the following shows the relative importance of the items of each dimension. The overall mean of the independent variables was calculated, and **Table 4** displays the outcomes.

Table 4. Overall arithmetic mean for the dimensions of the digital marketing variable.

Item	Ranking	Mean	Relative Importance
Attraction	1	4.20	High
Retention	1	4.20	High
Engagement	2	4.09	High
Learning	2	4.09	High
Communication	3	4.05	High
Digital Marketing	-	**4.12**	**High**

It seems that all of the dimensions of the variable for Digital Marketing have a high relative value when comparing the means of the different dimensions. Among the dimensions, the attraction and retention variables had the highest mean (4.20), whilst the communication variable had the lowest mean (4.05). With a mean score of 4.12, the Digital Marketing variable overall attained a high relative relevance, demonstrating that pharmaceutical businesses are using Digital Marketing to a significant extent in their operations.

Firstly, Attraction:

It's the first dimension of the independent variable, and it was measured through four items. **Table 5** demonstrates the means, standard deviations, and relative importance of the items.

Table 5. Arithmetic means and standard deviations for the items of the attraction variable.

Axis Phrases	Mean	Standard Deviation	Rank
1) I follow pharmaceutical companies' pages on social media	4.26	0.728	2nd
2) I constantly check for new updates from companies and pharmacies through their website	4.22	0.616	3rd
3) I feel comfortable browsing companies' and pharmacies' websites	4.09	0.830	4th
4) I follow companies' advertisements through smart application	4.26	0.602	1st
Overall Mean	**4.20**	-	-

The outcomes analysis in **Table 5** showed that all items of the Attraction variable had a high mean, and the overall mean for the variable was 4.20, indicating the top relative standing of this variable and the pharmaceutical companies' interest in applying customer attraction strategies. The first item, "I follow companies' advertisements through smart applications," had the highest mean among the items, with a mean of 4.26 and a standard deviation of 0.602. This result indicates that suppliers and customers follow the company's advertisements through the smart applications adopted by the company in Digital Marketing tools. On the other hand, the fifth item, "I feel comfortable browsing companies' and pharmacies' websites," had the lowest mean among the items with a mean of 4.09 and a standard deviation of 0.830, indicating its high relative importance. The sample responses suggest that there are targeting methods determined through Digital Marketing in directed attraction processes.

Secondly, Engagement:

The Engagement variable was measured through four items, and **Table 6** shows the means, standard deviations, and relative standing of these items.

Table 6. Arithmetic means and standard deviations for the items of the engagement variable.

Axis Phrases	Mean	Standard Deviation	Rank
5) The information provided by pharmaceutical companies and pharmacies on their website catches my interest	4.06	0.727	3rd
6) Digital Marketing content reflects complete information about pharmaceutical companies and pharmacies	4.22	0.616	1st
7) The appearance and packaging of pharmaceutical products displayed electronically by companies and pharmacies contribute to my repeat purchases	3.96	0.657	Last
8) Digital Marketing methods adopted by companies and pharmacies can meet my desires	4.13	0.741	2nd
Overall Mean	**4.09**	-	-

All of the items in the Engagement variable had high numerical means, according to the findings analysis in **Table 6**, which looked at the means of the individual items. A high relative relevance was shown by the variable's total mean, which was 4.09. **Table 6** results also showed that all items in the Engagement variable were of high relative importance. The sixth item, "Digital Marketing content reflects complete information about pharmaceutical companies and pharmacies," had the highest mean with a mean of 4.22 and a standard deviation of 0.616, indicating its high relative importance. This suggests that the content provided through Digital Marketing provides satisfaction to the recipient by providing necessary information.

On the other hand, the seventh item, "The appearance and packaging of pharmaceutical products displayed electronically by companies and pharmacies contribute to my repeat purchases," had the lowest mean among the items, with a mean of 3.96 and a standard deviation of 0.657, indicating its high relative importance among the paper sample. The sample responses suggest that pharmaceutical companies adopt Digital Marketing in their marketing processes.

Thirdly, Communication:

The variable was measured through four items, and **Table 7** shows the means, standard deviations, and relative importance of these items.

Table 7. Arithmetic means and standard deviations for the items of the communication variable.

Axis Phrases	Mean	Standard Deviation	Rank
9) Pharmaceutical companies and pharmacies communicate with customers digitally	3.73	0.929	Last
10) Digital Marketing methods used by companies and pharmacies provide information to all customers	4.13	0.694	3rd
11) I provide my feedback through digital communication channels to companies and pharmacies	4.22	0.588	1st
12) Companies and pharmacies offer quick response services around the clock through Digital Marketing applications	4.13	0.670	2nd
Overall Mean	**4.05**	-	-

The outcomes analysis in **Table 7** showed that the total mean with regard to the variable was 4.05, indicating elevated relative importance. The eleventh item, "I provide my feedback through digital communication channels to companies and pharmacies," had the highest mean among the items with a mean of 4.22 and a standard deviation of 0.588. This ratio indicates that the company takes feedback from customers using internet marketing tools.

On the other hand, the ninth item, "Pharmaceutical companies and pharmacies communicate with customers digitally," had the lowest mean among the items with a mean of 3.73 and a standard deviation of 0.929, indicating its elevated relative value. The table shows communication practices through Digital Marketing tools that the company engages in, based on the sample responses to the paper's axis questions.

Fourthly, Retention:

The variable was measured through four items, and **Table 8** shows the means, standard deviations, and relative importance of these items.

Table 8. Arithmetic means and standard deviations for the items of the retention variable.

Axis Phrases	Mean	Standard Deviation	Rank
13) Digital Marketing methods used by companies and pharmacies contribute to improving customer retention	4.13	0.763	Last
14) I interact well with the Digital Marketing applications used by companies and pharmacies	4.27	0.635	1st
15) Published digital content affects my purchasing decision	4.19	0.678	3rd
16) Companies continuously follow up on my feedback	4.24	0.698	2nd
Overall Mean	**4.20**	-	-

The outcomes analysis in **Table 8** showed that the overall mean for the Communication axis was 4.20, indicating high relative importance. All means for the items in the Retention variable were also within the high relative standing range. The 14th item, "I interact well with the Digital Marketing applications used by companies and pharmacies," had the highest mean among the items with a mean of 4.27 and a standard deviation of 0.635. This item is classified as of high relative importance, and it highlights the role of Digital Marketing in customer retention. On the other hand, the 13th item, "Digital Marketing methods used by companies and pharmacies contribute to improving customer retention," had the lowest mean among the items with a mean of 4.13 and a standard deviation of 0.763. This item is also classified as of high relative importance, and the sample responses suggest the important role of Digital Marketing activities in retention.

Fifthly, Learning:

The variable was measured through four items, and **Table 9** shows the means, standard deviations, and relative importance of these items.

Table 9. Arithmetic means and standard deviations for the items of the learning variable

Axis Phrases	Mean	Standard Deviation	Rank
17) I follow customer feedback on the characteristics of displayed products	3.98	1.056	3rd
18) I browse several pages of competing companies and pharmacies before making a purchase decision	4.24	0.887	2nd
19) I discuss with service providers through Digital Marketing tools before making a purchase decision	3.91	1.084	Last
20) Digital Marketing tools provide interactive features that help disseminate sufficient information about displayed products	4.26	0.772	1st
Overall Mean	**4.09**	-	-

The relative weights of the means for the learning variable varied, with item 20, "Digital Marketing tools provide interactive features that help disseminate sufficient information about displayed products," having the highest mean (4.26) and the greatest standard deviation (0.772). The relative relevance of this item is high. The lowest mean was obtained by item 19, which reads, "I discuss with service providers through Digital Marketing tools before making a purchase decision," while the lowest standard deviation was recorded at 1.084. The proportional relevance of this item is also very high. The Learning axis, with a mean of 4.09, overall attained a high relative relevance.

Sixthly, (Dependent Variable) Customer Satisfaction:

The dependent variable was measured through five items, and **Table 10** shows the means, standard deviations, and relative importance of these items.

The relative standing of the means for the Customer Satisfaction variable varied, with item 21, which states "Digital Marketing methods used by pharmaceutical companies and pharmacies have contributed to increasing my satisfaction," achieving the biggest mean of 4.26 and a standard deviation of 0.655. This indicates the importance of Digital Marketing activities by pharmaceutical companies on customers. On the other hand, item 22, which states "Through Digital Marketing applications, I have developed a good relationship with companies and pharmacies,"

achieved the lowest mean of 4.06 with a standard deviation of 0.928, and it is of moderate relative importance. Overall, the Customer Satisfaction axis achieved an elevated value relative with a mean of 4.15.

Table 10. Arithmetic means and standard deviations for the items of the variable of gaining customer satisfaction.

Axis Phrases	Mean	Standard Deviation	Rank
21) Digital Marketing methods used by pharmaceutical companies and pharmacies have contributed to increasing my satisfaction	4.26	0.655	1st
22) Through Digital Marketing applications, I have developed a good relationship with companies and pharmacies	4.06	0.928	Last
23) Digital Marketing applications have contributed to faster sales processes for companies and pharmacies	4.06	0.910	4th
24) I am constantly updated on what's new with companies and pharmacies for the products they offer	4.19	0.833	3rd
25) I participate in commenting on product displays through Digital Marketing applications	4.21	0.635	2nd
Overall Mean	**4.12**	**-**	**-**

Data Validity Tests:

There are a set of conditions that must be used before building a linear regression equation. These conditions verify the validity of the data and indicate the extent to which the results can be relied upon to generalize the findings. There are several tests to verify the accuracy of the data, and the following tests were adopted: normal distribution and multiple linear correlation.

Normal Distribution of Data:

Table 11. Distributional data for the paper variables.

Variable	Learning	Retention	Communication	Engagement	Attraction	Overall
Skewness Coefficient	−0.271	−0.014	−0.276	−0.086	−1.004	−0.380
Kurtosis Coefficient	0.019	0.039	0.043	0.448	1.620	0.372

Table 11 demonstrates the outcomes of the variables' normal distribution test using the skewness and kurtosis coefficients. The table shows that all kurtosis coefficients approach the value of zero, and the Learning variable achieved the lowest kurtosis coefficient among the variables (−1.004). Regarding skewness, all variables had values close to 3, with the Attraction variable having the lowest skewness coefficient of 0.019. From the values of the skewness and kurtosis coefficients, it can be concluded that the data follows a normal distribution.

Table 12. Variance inflation facto (VIF and tolerance).

Variables	VIF	Tolerance
Attraction	1.768	0.533
Engagement	2.282	0.444
Communication	2.655	0.351
Retention	2.682	0.399
Learning	2.671	0

To ensure that the independent variables possess no several collinearities, the variance inflation factor (VIF) should be less than 10, and the tolerance value should be greater than 0.1. **Table 12** shows that all VIF values for the independent variables are less than 10, and the tolerance values are greater than 0.1, indicating that there is no issue of several collinearities. After confirming that the data follows a normal distribution and is free from multicollinearity, various types of linear regression tests were used to test the hypotheses.

Hypothesis Testing:

The primary hypothesis is tested and the percentage of the dependent variable's variance that the independent variables account for are both ascertained through the use of multiple linear regression analysis.

Main Hypothesis Testing:

H01: There is no statistically importance relationship among Digital Marketing with its dimensions (Attraction, Engagement, Retention, Learning, Communication) and customer satisfaction.

This hypothesis was tested using the Amos program, and the findings are displayed in **Figure 2**. The result shows an impact that is statistically important of Digital Marketing on customer satisfaction, with a regression coefficient (*B*) of 0.50, which is significant at a level of less than 0.05, as shown in **Table 13**.

Table 13. Result of testing the impact of Digital Marketing dimensions on gaining customer satisfaction.

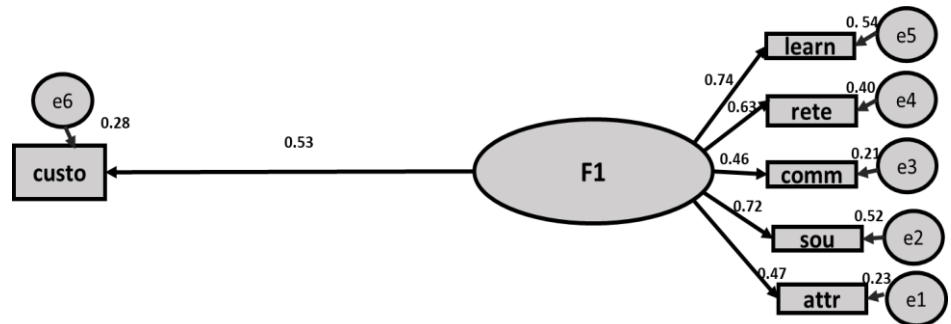| Path	Beta Value	*t*-value (*β*)	Significance
Digital Marketing → Customer Satisfaction	0.80	3.310	0.00

Figure 2. The impact of digital marketing on gaining customer satisfaction.

The main hypothesis was accepted in the alternative form and rejected in the null form.

Sub-hypothesis Testing:

H01.1: No statistically significant impact is present at an importance level of ($\alpha \geq 0.05$) of Attraction, as one of the dimensions of electronic marketing, on client satisfaction.

H01.2: No statistically significant impact is present at an importance level of ($\alpha \leq 0.05$) of Engagement, as one of the dimensions of Digital Marketing, on client satisfaction.

H01.3: There is a statistically important effect at an importance level of ($\alpha \leq$

0.05) of Retention, as one of the dimensions of Digital Marketing, on client satisfaction.

H01.4: No statistically significant impact is present at an importance level of ($\alpha > 0.05$) of Learning, as one of the dimensions of Digital Marketing, on client satisfaction.

H01.5: No statistically significant impact is present at an importance level of ($\alpha < 0.05$) of Communication, as one of the dimensions of Digital Marketing, on client satisfaction.

These hypotheses were tested using the Amos program, and the outcomes are displayed in **Figure 3**. The result shows a statistically significant effect of the dimensions of Digital Marketing on customer satisfaction, as shown in **Table 14**.
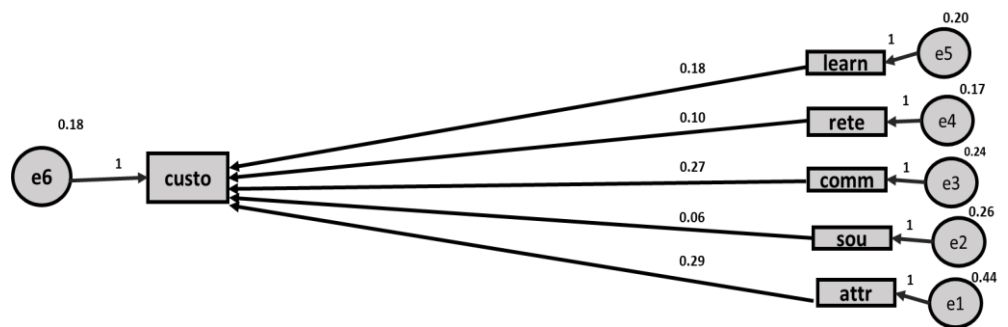

Figure 3. Significant effect of the dimensions of digital marketing on customer satisfaction.

Table 14. Results of testing the dimensions of digital marketing on gaining customer satisfaction.

Path	Beta Value (β)	T-value	Significance
Attraction → Customer Satisfaction	−0.183	−1.294	0.196
Engagement → Customer Satisfaction	0.102	0.580	0.562
Retention → Customer Satisfaction	0.064	0.498	0.619
Learning → Customer Satisfaction	0.290	2.847	*0.004
Communication → Customer Satisfaction	0.274	2.292	*0.022

The previous results showed the following:

1) There isn't a meaningful statistical difference at a significance level of ($\alpha < 0.05$) of Attraction, as one of the dimensions of Digital Marketing, on client satisfaction. The values (−0.183, −1.294) corresponding (T, β) are not statistically significant, and thus the first sub-hypothesis is rejected in the alternative form and accepted in the null form.

2) There isn't a meaningful statistical difference at a significance level of ($\alpha < 0.05$) of Engagement, as one of the dimensions of Digital Marketing, on customer satisfaction. The values (0.102, 0.580) corresponding (T, β) are not statistically significant, and thus the second sub-hypothesis is rejected in the alternative form and accepted in the null form.

3) There isn't a meaningful statistical difference at a significance level of ($\alpha < 0.05$)

of Retention, as one of the dimensions of Digital Marketing, on client satisfaction. The values (0.064, 0.498) corresponding (*T*, *β*) are not statistically significant, and thus the third sub-hypothesis in the null form is accepted and refused in the alternative form.

4) There isn't a meaningful statistical difference at a significance level of ($\alpha > 0.05$) of Learning, as one of the dimensions of Digital Marketing, on consumer satisfaction. The values (0.290, 2.847) corresponding (*T*, *β*) are statistically significant, and thus the fourth sub-hypothesis is rejected in the null form and accepted in the alternative form.

5) There isn't a meaningful statistical difference at a significance level of ($a < 0.05$) of Communication, as one of the dimensions of Digital Marketing, on customer satisfaction. The values (0.274, 2.294) corresponding (*T*, *β*) are statistically significant, and thus the fifth sub-argument in the null form is accepted and refused in the alternative form.

5. Results and recommendations

5.1. Results

Because of the digital transformation and the pervasive use of information and communication technology, the paper found that pharmaceutical businesses in Jordan use Digital Marketing at a high level. Direct consumer involvement in marketing operations has also been greatly facilitated by the ease of access and interaction with customers, especially given the widespread use of communal media networks and various Digital Marketing tools.

The first main hypothesis was reinforced by statistical research, which showed a statistically significant association between customer satisfaction and the five characteristics of Digital Marketing (Attraction, Engagement, Retention, Learning, and Communication). In order to demonstrate the presence of a statistically significant relationship on the dependent variable, the test's significance threshold was compared with the significance level used in the paper. The primary hypothesis was accepted in the alternative form and rejected in the null form since the *F*-test value was less than the significance threshold used in the investigation.

The current study agrees with previous studies, such as (Alkufahy et al., 2023), which found a significant impact of Digital Marketing mix on marketing performance in Jordanian pharmaceutical companies. Additionally, the paper is consistent with Mohamed's (2022) findings, which revealed the impact of Digital Marketing dimensions (Attraction, Engagement, Communication, Sustainability, and Learning) on competitive advantage. Moreover, the paper is in keeping with Salam's (2021) results, which demonstrated a statistically significant effect of the main dimensions of online marketing (Attraction, Engagement, Retention, Learning, and Communication) on customer satisfaction in Jordan. The paper is also consistent with Alkufahy et al.'s findings (2023), which showed the impact of Digital Marketing on customer loyalty in Jordanian car agencies.

The results indicate that online marketing dimensions have a strong relationship when they are combined, and companies should practice these dimensions together

based on a clear plan for Digital Marketing operations.

Results of the Sub-Hypotheses:

- There is no statistically important connection among Attraction, as one of the measurements of Digital Marketing, and customer satisfaction.
- There is no statistically important connection among Engagement, as one of the measurements of Digital Marketing, and customer satisfaction.
- There is no statistically important connection among Retention, as one of the measurements of Digital Marketing, and customer satisfaction.
- There is a statistically important connection among Learning, as one of the measurements of Digital Marketing, and customer satisfaction.
- There is no statistically important connection among Communication, as one of the measurements of Digital Marketing, and customer satisfaction.

The second main hypothesis showed statistically important connection among companies, distributors, and Digital Marketing dimensions (Attraction, Engagement, Retention, Learning, and Communication) in customer satisfaction. **Table 14** presented the path analysis results for the relationship between companies, distributors, and Digital Marketing dimensions in customer satisfaction. The statistical analysis showed a strong relationship with statistical significance for Digital Marketing in customer satisfaction for companies and distributors, as indicated by the Goodness of Fit Index (GFI) of 0.99, which is close to 1, and the Comparative Fit Index (CFI) of 0.97, which is also close to 1.

5.2. Recommendations

The paper suggests the following in light of the findings:

1) Advertising pharmaceutical products through multiple Digital Marketing channels, such as sponsored ads on social media and websites that target all areas at the local and international levels.
2) Improving communication and interaction networks between the company and distribution centers to increase engagement with customers and distributors. Developing modern and distinctive technology programs that help employees to obtain and continuously update customer data and information.
3) Emphasizing the importance of the online marketing mix dimensions (Attraction, Engagement, Retention, Learning, and Communication) and practicing them together based on a clear plan for Digital Marketing operations.
4) Responding to customers' questions and inquiries who follow the store's website and social media pages.
5) Paying attention to presenting and pricing products clearly through available Digital Marketing channels.

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