



Impact of Digital Marketing on Promoting the Local Pharmaceutical Products in Jordan

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ABSTRACT

This study aims to explore the impact of digital marketing elements on promoting local pharmaceutical products within the pharmacy sector in Amman city the capital of Jordan. The study identifies specific elements of digital marketing, including social media marketing (SMM), Content marketing, e-mail marketing, and online advertising. The descriptive analytical approach is used. The study population consisted of 1926 pharmacies spread throughout Amman city the capital of Jordan, with a random sample of 320 pharmacies. The research tool used to collect data is a structured questionnaire designed to achieve the study's objectives. For purposes related to the Jordanian laws issued by Jordan Food and Drug Administration (JFDA) regarding the promotion of pharmaceutical products, the questionnaire is restricted to what concerns non-prescription medications (OTC). The data collected from the study sample is analyzed using statistical packages SPSS Version 21. The study concluded with results showing that digital marketing elements have a significant direct positive impact on promoting local pharmaceutical products. Based on the study results, the study concluded a set of recommendations, the most important of which is that pharmacies need to adopt a holistic approach. This involves seamlessly integrating various digital marketing elements, ensuring a cohesive and synchronized strategy for promoting local pharmaceutical products effectively.

Keywords: Digital Marketing Elements, Promoting, Local Pharmaceutical Products, Pharmacies Sector, Amman City

JEL Classifications: M31, O32, I12

1. INTRODUCTION

The rapid rise of the Internet in recent years has transformed how businesses operate, with many embracing e-commerce to capitalize on its benefits. The Internet has become a strategic focus for organizations, particularly in commercial and marketing roles, enabling new channels for customer interaction and driving sales. This shift is essential, especially as businesses seek growth and competitiveness through technology (Al-Adamat et al., 2023; Aldaihani et al., 2023; Al-Shanableh et al., 2024; Al-Fakeh et al., 2023).

Digital marketing has emerged as a crucial component of contemporary business strategies, facilitating multiple objectives concurrently, satisfying customer needs, and driving profits through various digital strategies (Alkhalwaldeh et al., 2023; Mohammad et al., 2024). The integration of digital marketing has streamlined processes, enhanced public perception, and improved customer acquisition techniques, granting organizations a strategic advantage over competitors (Mohammad et al., 2023a). Among the essential strategies in digital marketing are search engine marketing, advertising, email campaigns, and interactive advertising, all of which contribute to marketing

development, particularly in the transition from traditional to electronic commerce (Mohammad et al., 2023b). These strategies have become more vital than ever due to the growth of the Internet as the primary engine of economic growth worldwide (Al-Hawary and Obiadat, 2019). The pharmaceutical industry has experienced a remarkable rise in the significance of digital marketing (Mackey et al., 2015). It has opened up new avenues for connecting with patients, healthcare providers (HCPs), and other stakeholders, disseminating vital information and fostering trust and credibility. With the shift in customer behaviour towards online channels for research, treatment exploration, and pharmaceutical product purchases, companies must adapt their sales strategies, especially over-the-counter (OTC) medications. This transition from traditional business-to-business (B₂B) channels to a more competitive Direct-to-Customer (D₂C) model has become essential to cope with sales margin pressures. The emergence of the Internet and social media technologies provides cost-effective opportunities for online marketing and e-commerce (Al-Husban et al., 2023). However, pharmaceutical companies in Jordan must adhere to stringent regulations issued by the Jordan Food and Drug Administration (JFDA) regarding promoting and advertising their products, ensuring ethical standards and accuracy (Banat, 2022).

Integrating digital marketing elements has emerged as a significant driver in promoting local pharmaceutical products in the rapidly evolving pharmaceutical industry landscape (Alzoubi et al., 2024). Despite recognizing the importance of integrating digital marketing elements into promoting the pharmaceutical industry (Alzyoud et al., 2024), there remains a notable gap in understanding the specific impact of these digital elements on product promotion in the pharmacy landscape of the capital, Amman. This knowledge gap stems from the limited studies that quantitatively evaluate the effectiveness of digital marketing elements in promoting pharmaceutical products in general and the lack of such studies in Jordan.

This study significantly enhances the scientific understanding of pharmaceutical marketing and digital advertising by empirically exploring the impact of specific digital marketing elements on local pharmaceutical product promotion in Amman City's pharmacy sector. It provides valuable insights into the real-world effectiveness of digital marketing strategies, shedding light on their role in enhancing brand visibility, consumer engagement, and overall market performance. The findings contribute to existing literature, serving as a foundation for future academic research and discussions on the evolving role of digital marketing in the pharmaceutical industry.

The practical implications of this research are substantial, particularly for local pharmaceutical companies, pharmacy owners, and marketing professionals in Amman City. By identifying the most effective digital marketing elements for pharmaceutical promotion, the study offers actionable insights that can directly impact business strategies. Decision-makers can use the results to allocate resources effectively, prioritize digital marketing efforts, and tailor promotional campaigns to reach their target audience more efficiently. Furthermore, the research benefits pharmacies in Amman City by highlighting digital channels that optimize the

promotion of local pharmaceutical products, thereby enhancing marketing capabilities, improving customer engagement, and facilitating more efficient promotion of local pharmaceutical products.

2. LITERATURE REVIEW

The transformational trajectory of brands and businesses over the past two decades has been significantly influenced by the omnipresence of digitalization (Al-Shanableh et al., 2024a; Al-Shanableh et al., 2024b). This paradigm shift, recognized globally, has been articulated by the American Marketing Association (AMA), which defines digital marketing as a spectrum of activities, organizations, and processes driven by digital technologies to offer value to consumers (Mohammad et al., 2023c). While Royle and Laing (2014) perceive digital marketing as an extension of traditional marketing, augmented by modern channels, Todor (2016) and Dara (2016) contend that digital marketing represents a distinct paradigm with unique dynamics, shaping customer perceptions and purchasing behaviors. Central to digital marketing is its manifestation through various online advertising channels such as Facebook Ads, Google Ads, email marketing, and others (Alzyoud et al., 2024). Additionally, the focus on customer attitudes towards digital marketing is pivotal, given its role in influencing advertising effectiveness and purchase intentions (Al-Hawary and Obiadat, 2019).

Transitioning to the healthcare sector, local pharmaceutical products emerge as pivotal entities that resonate with regional health needs and cultural sensitivities. Their promotion transcends commercialism, championing community empowerment, and trust (Anis and Hassali, 2023). Pharmaceutical marketing, historically bound by rigorous regulations, has witnessed an evolution propelled by digitalization (Alyahya et al., 2020). This evolution is underscored by factors such as consumer empowerment, advancements in digital health technologies, regulatory changes, and the competitive landscape (Alzghoul et al., 2024; AlKhoury et al., 2024; Alkhaldeh et al., 2024). Within the pharmaceutical sector's digital transformation, specific digital elements have emerged as instrumental. Social media marketing, email marketing, content marketing, and online advertising have redefined industry communication strategies, enhancing accessibility, engagement, and data collection (Mansour et al., 2024; Al-Muani et al., 2024; Baniata et al., 2024; Mohammad et al., 2023b). However, this digital shift is not devoid of challenges, including regulatory compliance, data privacy, and ensuring evidence-based and accurate information dissemination (Al-Abbadi et al., 2024; Areiqat et al., 2024; Mohammad et al., 2024b). Furthermore, the significance of over-the-counter (OTC) pharmaceutical products cannot be understated. These non-prescription medications enhance healthcare accessibility, affordability, and convenience (Anis and Hassali, 2023). In the context of Jordan's Amman City, Community Pharmacies stand as crucial pillars, dispensing medications, offering healthcare counseling, and promoting community health (Mukattash et al., 2018). Their roles in OTC product distribution underscore their significance in fostering consumer guidance, product accessibility, trust, and consumer education.

3. RESEARCH MODEL

The study model is prepared by examining relevant literature on the subject and considering the chosen problem and hypotheses, as indicated in Figure 1, (Schneider et al., 2023).

Based on the suggested importance and objectives of this study, the main hypotheses can be elicited as follows:

H₀: There is a significant impact of digital marketing on promoting the local pharmaceutical products in Jordan.

4. METHODOLOGY

This research will follow the descriptive analytical method, systematic quantitative interpretation to describe a phenomenon or a specific problem and quantified by collecting data and information codified on the phenomenon, or the problem that is discussed. In this research an inductive-quantitative design will be used, Survey strategy utilizing a questionnaire will be used to collect the primary data from the sample of the research.

4.1. Research Population and Sample

In this research, the research population consists of pharmacy workers in the city of Amman. These categories are chosen because they are considered the closest to the subject of the study. According to the Jordanian Pharmacists Association, there are 1926 pharmacies spread throughout the capital, Amman (jpa.org.jo) which constitute the study population for this research. The study sample was selected using the simple random sample from the study population; the sample will consist of 320 pharmacies (AlMahi and Ahmad, 2023; Ghoneim, R., and Arabasy, 2024; Al-Khair, 2023).

4.2. Research Tool

For the research, questionnaire is developed based on previous studies to find the Impact of digital marketing elements in promoting the local pharmaceutical products and evaluate the elements using five-point Likert scale is used to obtain the answers to the questions of the questionnaire. Likert Scale is a measurement of the metrics used to measure trends in the respondents' opinions. It implies the adoption of a five-degree answers to the interview questions, ranging from strongly agree to strongly disagree and are represented numerically (5, 4, 3, 2, 1). To verify the validity, of the study tool, the researcher presented the questionnaire to ten experts, making the tool more accurate and objective.

4.3. Validity

Validity refers to the certainty level and whether the questionnaire's items measure the assumed concept (Hunitie et al., 2023; Abu-Rumman, 2022; Haija et al., 2023; Ghaith et al., 2023; Al-Husban et al., 2023). One way to establish validity is arbitration, where several specialists who are specialized in the research topics screen the questionnaire to give their opinions. Another way to obtain truth is by providing the questionnaire to a pilot study to check if the questions are clear enough or need any amendments (Al-shanableh et al., 2024; Alrfai et al., 2024; Boutora, 2021; Al-Daoud et al., 2023). The researchers had undertaken Construct

Validity. Construct validity can be concluded using the correlation coefficients among items of the questionnaire variables and its total.

Table 1 shows the correlation result that expresses the construct validity among the questionnaire items and its total. Construct validity is the appropriateness of inferences made on the basis of observations or measurements. It's clear that all the correlation values from the table above were > 0.40, indicating good construct validity for each variable expressed by its related items. The highest value of correlation that could be reached is (1), so a minimum value of 0.40 is considered as good acceptable correlation value (Al-Majali et al., 2024; Al-Momani et al., 2024; Alshura et al., 2023).

4.4. Reliability Analysis

Cronbach's alpha test is used to assess the reliability of the research instrument. The Table 2 below shows results for the 25 statements of the questionnaire and how closely related a set of items are as a group over sample of 320 respondents.

Table 2 shows that the independent variable digital marketing elements (Social Media Marketing (SMM), Content Marketing, Email Marketing, Online Advertising) Cronbach's alpha values equal to (0.779, 0.806, 0.805, 0.843) respectively, and the dependent variable (promoting the local pharmaceutical products) Cronbach's alpha value equals to (0.910). The overall value of the questionnaire is (0.917) indicating very high level of reliability of the research instrument, reflecting relatively very high internal consistency, since the reliability coefficient of 0.70 or higher is considered "acceptable" in the majority social science research situations (Rahahle et al., 2023; Al-Shara'h et al., 2021; Sarram et al., 2024; Shamaileh et al., 2023).

5. DATA ANALYSIS

The aim of this study is to present the data analysis of and the research findings from, the fieldwork. The chapter starts by presenting the descriptive analyses of the collected data from 320 filtered and screened questionnaires, then the regression analyses utilized to test the main and sub hypotheses including the moderation of the selected demographics. SPSS version 21 was used to describe and analyze the data.

5.1. Descriptive Analyses

5.1.1. Digital marketing elements

Digital Marketing Elements comprised of four different Elements which are Social Media Marketing (SMM), Content Marketing, Email Marketing, and Online Advertising. All of the items in this dimension were assessed on a 5-point Likert Scale, where 1 = Strongly disagree and 5 = strongly agree.

5.1.2. Social media marketing (SMM)

Social Media Marketing (SMM) was operationalized using 5 statements; the outcomes of descriptive statistics (Means, SD) for each measurement item and for the dimension as a whole are presented in Table 3.

Table 1: The correlation coefficients among the items and its total for each variable

Independent variables	1	2	3	4
Social Media Marketing (SMM)	0.770	0.732	0.724	0.726
Content Marketing	0.796	0.831	0.701	0.787
Email Marketing	0.743	0.811	0.803	0.811
Online Advertising	0.841	0.890	0.888	-
Dependent variable Promoting the local pharmaceutical products	0.795	0.889	0.864	0.854

Table 2: Reliability analysis using Cronbach's alpha

Variables	No. of items	Cronbach's alpha
Dependent variable	5	0.910
Independent variables		
Social media marketing (SMM)	5	0.779
Content marketing	5	0.806
E-mail marketing	5	0.805
Online advertising	5	0.843

The table above presents the values of means and standard deviations, mean incidence for the Social Media Marketing (SMM). Statement no. 3 "SMM platforms help share information about local pharmaceutical products." recorded the highest mean among the items being rated (by the study sample) as it ranked first with a mean of (3.43), while statement no. 5 "SMM helps create a positive brand image for local pharmaceutical products." recorded the least mean (by the study sample) (2.85). The overall assessment degree of this independent variable was rated by a mean of (3.18). This value expresses a moderate level of agreement among the study sample.

5.1.3. Content marketing

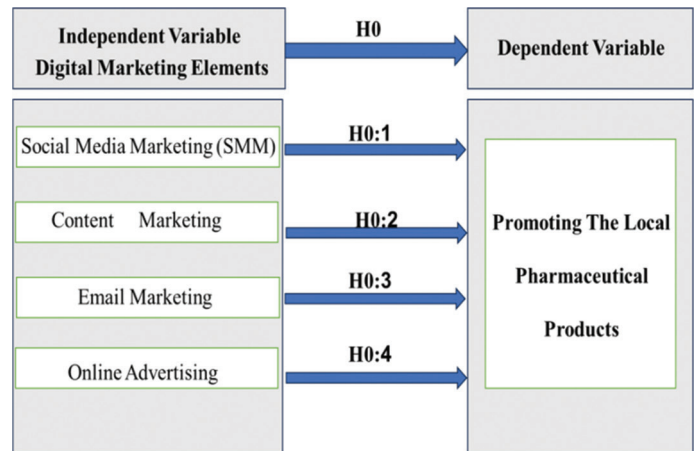
Content Marketing was operationalized using 5 statements, the outcomes of descriptive statistics (Means, SD) for each measurement item and for the dimension as a whole are presented in Table 4.

The table above indicates the values of means and standard deviation, for the Content Marketing. The statement no. 3 "Content Marketing materials enables the customer to make informed decisions about pharmaceutical products." recorded the highest mean rated (by the study sample) as it ranked the first by a mean of (3.58), while the statement no. 1 "Content Marketing plays a significant role in educating consumers about local pharmaceutical products" was the least that was addressed as it recorded the least mean (by the study sample) (2.65). The overall assessment degree of this independent variable was rated by a mean of (3.17). This value expresses a moderate level of agreement among the study sample.

5.1.4. Email marketing

Email Marketing is operationalized using 5 statements; the outcomes of descriptive statistics (Means, SD) for each measurement item and for the dimension as a whole are presented in Table 5.

The table above indicates the values of means and standard deviations, for the Email Marketing. The statement no. 5 "E-mail marketing campaigns effectively reach the target audience of local

Figure 1: Research model

pharmaceutical products." recorded the highest mean as it ranked the first by a mean of (3.32), while the statement no. 1 "E-mail marketing campaigns effectively inform customers about new local pharmaceutical products" was the least item that was addressed as it recorded the least mean (by the study sample) (2.43). The overall assessment degree of this independent variable was rated by a mean of (2.81). This value expresses a moderate level of agreement among the study sample.

5.1.5. Online advertising

Online Advertising is operationalized using 5 statements, the outcomes of descriptive statistics (Means, SD) for each measurement item and for the dimension as a whole are presented in Table 6.

The table above indicates the values of means and standard deviation, for the Online Advertising. The statement no. 2 "Online advertising helps introduce new local pharmaceutical products." recorded the highest mean being rated by the study sample as it ranked the first by a mean of (4.42), while the statement no. 4 "Online advertising positively affects customers' perception of local pharmaceutical products" was the least addressed as it recorded the least mean by the study sample (3.32). The overall assessment degree of this independent variable was rated by a mean of (3.99). This value expresses a very high level of agreement among the study sample.

5.1.6. Promoting local pharmaceutical products

Promoting Local Pharmaceutical Products is operationalized using 5 statements, the outcomes of descriptive statistics (Means, SD) for each measurement item and for the dimension as a whole are presented in Table 7.

Table 3: Means, SD for social media marketing (SMM)

No.	Items	M	SD	Rank
1	SMM platforms help share information about local pharmaceutical products	3.43	1.013	1
2	SMM activities are effective engaging with customers interested in local pharmaceutical products	3.28	1.069	2
3	Social media marketing enhances the awareness of local pharmaceutical products	3.19	1.017	3
4	SMM efforts positively influence the reputation of local pharmaceutical products	3.14	1.073	4
5	SMM helps create a positive brand image for local pharmaceutical products	2.85	1.237	5
	Overall mean	3.18		

(M: Mean, SD: Standard Deviation)

Table 4: Means, SD for content marketing

No.	Items	M	SD	Rank
1	Content Marketing materials enable the customer to make informed decisions about pharmaceutical products	3.58	1.034	1
2	Content Marketing efforts contribute to the overall brand image of local pharmaceutical products	3.50	0.987	2
3	Content Marketing creates a connection between in customers and local pharmaceutical products	3.20	1.013	3
4	High-quality content increases the credibility of information about local pharmaceutical products	2.90	1.152	4
5	Content marketing plays a significant role in educating consumers about local pharmaceutical products	2.65	1.114	5
	Overall mean	3.17		

(M: Mean, SD: Standard Deviation)

Table 5: Means, SD for email marketing

No.	Items	M	SD	Rank
1	E-mail marketing campaigns effectively reach the target audience of local pharmaceutical products	3.32	1.030	1
2	E-mails increase trust in the local pharmaceutical product	2.91	1.113	2
3	E-mails influence purchasing decisions regarding a local pharmaceutical product	2.74	1.162	3
4	E-mail marketing provides valuable updates about local pharmaceutical products	2.64	1.085	4
5	E-mail marketing campaigns effectively inform customers about new local pharmaceutical products	2.43	1.274	5
	Overall mean	2.81		

(M: Mean, SD: Standard Deviation)

Table 6: Means, SD for online advertising

No.	Items	M	SD	Rank
1	Online advertising helps introduce new local pharmaceutical products.	4.42	0.596	1
2	Online advertising is useful in attracting the customer towards the local pharmaceutical product.	4.39	0.602	2
3	Online advertisements related to local pharmaceutical products are actively interacted with.	4.32	0.634	3
4	Online advertising helps in spreading awareness about local pharmaceutical products	3.50	0.987	4
5	Online advertising positively affects customers' perception of local pharmaceutical products.	3.32	1.030	5
	Overall Mean	3.99		

(M: Mean, SD: Standard deviation)

Table 7: Means, SD for the items of promoting local pharmaceutical products arranged in a descending order

No.	Items	M	SD	Rank
1	Promoting local pharmaceutical products is crucial to introducing the quality of local pharmaceutical products	4.27	0.645	1
2	Local pharmaceutical products are being promoted effectively in the era of digital marketing	4.23	0.684	2
3	The effectiveness of promoting local pharmaceutical products increases when advanced methods are used	4.21	0.715	3
4	Promoting local pharmaceutical products is a responsible and ethical business practice that benefits our society	4.18	0.700	4
5	Promoting local pharmaceutical products is crucial to boosting local pharmaceutical industries	4.16	0.741	5
	Overall mean	3.51		

(M: Mean, SD: Standard deviation)

The Table 7 indicates the values of means and standard deviation, for the (Dependent Variable) Promoting Local Pharmaceutical Products. Statement no. 1 “ Promoting local pharmaceutical products is crucial to introducing the quality of local pharmaceutical products.” Was the highest item being rated by the study sample as it ranked the first by a mean of (4.27), while statement no. 3 which states “ Promoting local pharmaceutical products is crucial to boosting local pharmaceutical industries ” was the lowest item being rated by the study sample as its mean was the least (4.16). The overall assessment degree of dependent

variable (Promoting Local Pharmaceutical Products) was rated by a mean of (3.51). This value expresses a high level of agreement among the study's sample.

5.2. Hypotheses Testing

The results from Table 8 below show that the value of adjusted $R^2 = 0.571$ which represents the amount of variation observed in the dependent variable and explained by the independent variable digital marketing elements. As the value of determination coefficient R^2 increases, the better the model is and the stronger

Table 8: Multiple linear regressions for testing the direct impact of the digital marketing elements on products on promoting the local pharmaceutical products in Amman city in Jordan

Model	B	T	Sig (t)
Social media marketing (SMM)	0.355	2.422	0.016
Content marketing	0.900	1.596	0.011
Email marketing	0.587	0.540	0.020
Online advertising	0.435	4.179	0.000
F=101.168	Sig. (F) = 0.000		

Adjusted R²=0.571

explanation of the dependent variable. It was found to be (57.1%) for this model. that is, the model explained 57.1% of the total variance, while other factors explained the rest.

The f value (101.168) was significant because the related sig (f) value (0.000) which is < 0.05. Accordingly, the null Hypotheses is rejected, which means there is a statistically significant impact at ($\alpha \leq 0.05$) of digital marketing elements variables (Social Media Marketing (SMM), Content Marketing, Email Marketing, Online Advertising) on promoting the local pharmaceutical products in Amman city in Jordan.

6. CONCLUSION AND RECOMMENDATIONS

It is concluded from this result that Digital marketing has emerged as a powerful tool in promoting local pharmaceutical products, with various elements contributing to its significant direct positive impact. One crucial facet is Social Media Marketing (SMM), which enables pharmaceutical companies in Amman City, Jordan, to reach a broader audience and engage with potential customers in real time. Through platforms like Facebook, Instagram, and Twitter, these companies can showcase their products and establish a direct connection with consumers, providing information, addressing concerns, and building trust. Content Marketing, another essential element, is pivotal in educating the target audience about locally pharmaceutical products. Informative and engaging content, distributed through various online channels, helps create awareness, highlights the benefits of specific medications, and positions local pharmaceutical brands as reliable sources of information.

Email Marketing is a direct and personalized communication channel that allows pharmaceutical companies to stay connected with healthcare professionals, distributors, and end consumers. Targeted email campaigns can disseminate updates on new products, promotions, and relevant industry information, fostering a sense of loyalty among recipients. Online Advertising complements these efforts by increasing the visibility of local pharmaceutical products. Strategic placement of advertisements on popular websites and search engines enhances brand recognition and attracts potential customers actively seeking healthcare solutions.

In a field study conducted in the pharmacy sector of Amman City, Jordan, it becomes evident that embracing digital marketing

elements has expanded the reach of local pharmaceutical products and improved the overall perception of these products among consumers. The ability to connect with the target audience through SMM, educate them through Content Marketing, maintain personalized communication via email, and increase visibility through online advertising collectively contributes to the success of local pharmaceutical marketing campaigns. As the digital landscape continues to evolve, leveraging these elements becomes imperative for pharmaceutical companies seeking sustained growth and positive impact in their local markets.

Based on the study results, the researchers provide some recommendations:

1. **Optimize Social Media Marketing Strategies:** Considering the statistically significant direct positive impact of Social Media Marketing (SMM) on promoting local pharmaceutical products, it is recommended that pharmacies in Amman City, Jordan, focus on optimizing their social media strategies. This includes identifying the most effective platforms for their target audience, creating engaging content and leveraging influencers to enhance visibility and trust
2. **Enhance Content Marketing Quality and Relevance:** Acknowledging the direct positive impact of Content Marketing on promoting local pharmaceutical products, it is advised that pharmaceutical businesses pay special attention to the quality and relevance of their content. Developing informative and educational content that addresses the specific needs and concerns of the local population can contribute significantly to building brand credibility and customer loyalty
3. **Strengthen Email Marketing Campaigns:** Given the observed statistically significant direct positive impact of Email Marketing on promoting local pharmaceutical products, pharmacies are encouraged to strengthen their email marketing campaigns. Personalized and targeted communication, coupled with regular updates on new products, promotions, and health-related information, can enhance customer engagement and foster a sense of trust and reliability
4. **Optimal Utilization of Online Advertising Channels:** In light of the identified statistically significant direct positive impact of Online Advertising on promoting local pharmaceutical products, it is recommended that pharmacies explore and invest in various online advertising channels. This may include display advertising, search engine marketing, and other targeted approaches to reach the intended audience effectively. Regular monitoring and adjustment of advertising strategies based on performance metrics are crucial for optimal results
5. **Holistic Integration of Digital Marketing Elements:** Recognizing the overall statistically significant direct positive impact of Digital Marketing elements on promoting local pharmaceutical products, it is advised the pharmacies to adopt a holistic approach. This involves integrating various digital marketing elements seamlessly, ensuring a cohesive and synchronized strategy. Collaboration among different marketing teams, constant monitoring of trends, and adaptability to technological advancements will contribute to a more effective and impactful digital marketing presence.

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