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**The Perception of Use of Social Media and Online Pharmacies by Lebanese Pharmacists: A Quantitative Study**

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**Abstract**

*As the use of online platforms and digitalization is increasing, the use of social media by pharmacists and the adoption of online pharmacy has been a trend worldwide. To date, limited data is available on Lebanese pharmacists and their use of social media and online pharmacies as platforms to improve engagement with patients. This research aims to study the Lebanese pharmacists' perception of the use of social media platforms and online pharmacies. A quantitative study was conducted by distributing a survey to 250 pharmacists. The results showed that pharmacists are willing to use social media more than owning an online pharmacy, although both have a financial advantage and improve patients' satisfaction, where pharmacists questioned the misuse of online medications, the risk of marketing prescription-only products, and the existence of illegal pharmacies. Moreover, social media was perceived to improve the communication with patients and provide the necessary medical knowledge.*

**Keywords:** Online pharmacies, pharmacist, social media, patients, marketing.

**JEL Classification:** M31.

**1. Introduction**

An expected 2.4 billion people overall used the Internet in 2011. This expanding utilization of the Internet and its connected advances has empowered the ascent of web-based media stages, counting Facebook, Twitter, MySpace, and Google+. All things considered, these kinds of intuitive frameworks are also known as Web 2.0 (Mackely, Liang, 2013). Digital marketing demands the use of Internet portals to market products and services, yet, in addition including ads, cell phones, and other computerized media (Nikolov et al., 2021).

The pharmacy area is not resistant to inescapable digitalization. Developments, like robots, have disturbed the drug store practice (Peltoniemi et al., 2021). Pharmacies are utilizing leaflets and posters to showcase a specific medication or

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health topic. They likewise include the drug specialist or an individual from the drug store group giving of their time and aptitude to help patients. Social media marketing offers pharmacists imaginative chances to associate with patients and further upgrade their wellbeing (Kayyali, Crilly, 2016). Social media marketing is considered one of the techniques utilized by businesses to familiarize their customers with their products and build a customer pool with which they can engage and interact (Nikolov et al., 2021).

Another significant component influencing the pharmacy sector is the online pharmacy. An online drug store is an organization that sells drugs, prescription-only and non-prescription medications, by means of web-based requesting and mail delivery (Orizio et al., 2011). Online drug stores are using various types of innovation to expand and upgrade their webpage usefulness, for example, video real time on wellbeing subjects and portable applications and text updates for requesting rehash solutions (Gray, 2011).

The purpose of this paper is to study the Lebanese pharmacists' perception of the use of online marketing, mainly social media and online pharmacies, to market medication and health information to patients. The research will highlight the importance of social media marketing and online pharmacies in engaging with patients, servicing them, and building relationships with various customers to overcome intensive competition.

As limited research is available to point out the importance of use of online pharmacies and social media by Lebanese pharmacies and pharmacists' perception of the use of online marketing, this paper will help researchers and pharmacist build an idea about the integrating of online channels, improve their marketing strategies, and initiate their business growth.

## **2. Problem Statement**

### ***2.1 Social Media Use by Pharmacies***

As social media is becoming a popular tool, pharmacists and patients are adopting it for the purpose of education, where pharmacists will observe social media as a speedy and advantageous tool to monitor patients' wellbeing and support the extensive public with medical advice (Kayyali, Crilly, 2016).

According to Ibrahim et al. (2020), a survey in the UAE on 267 respondents; 150 patients and 117 pharmacists; showed that 61.5% of the pharmacists use social media as a communication tool and 52.1% of these pharmacists use it to answer patients' questions. Among the most tools used to communicate with patients, 74.4% used WhatsApp followed by Email (41%), Facebook (37.60%), and Instagram (18.80%). Moreover, 51.3% believe that social media should be regularly adopted by pharmacies and 65% stated that social media enhances patients' health information. Furthermore, 77.3% of the patients revealed that they use social media to explore medical data related to their diseases and medications, 52% stated that getting to wellbeing related data ought to be allowed yet with close checking, while 44.7% said that it ought to continuously be allowed. Additionally, 60.7% of patients

prefer to use Instagram as a communication tool followed by WhatsApp (26.70%), Twitter (24%), and Facebook (22%).

A survey distributed to 273 pharmacists in Alberta by Barry & Pearson (2015) showed that of 226 pharmacists who use social media, 61.1% use it for professional purposes. Barriers to social media use was perceived to be professional accountability (47.6%), no benefit of using social media (35.5%), and lack of time (30%). Furthermore, 25.1% stated that they will use social networks professionally in the future.

According to a study conducted on a total of 1000 pharmacies in the Republic of North Macedonia, 18 of the pharmacies have an active website, 535 of the pharmacies use a personal website to provide information to patients, 670 use Facebook, 236 use Instagram, 520 have a Facebook account and a website, and 330 pharmacies use none of the digital tools (Nikolov et al., 2021).

According to Lombardo et al. (2019), a questionnaire on 668 community pharmacists conveyed that 41.8% of the pharmacist use social media, 82.4% use Facebook and 6% use Google+.

## 2.2 Online Pharmacies

Online pharmacies have many advantages, from selling medications and other healthcare products to providing medical data (Gray, 2011).

According to a literature review on 193 articles focusing on online pharmacies marketing proscriptio-only products, Orizio et al. (2011) revealed that the main concern with online pharmacies is the misuse of medications and the negative effect it will have on the patient-physician relationship as patients will be able to get their drugs online without appropriate consultation. On the other hand, not posting drug information for patients will minimize awareness and the patients will not be aware of the side effects or contraindication of a certain drug. Thus, pharmacists are responsible for posting information regarding the risks or adverse events of using a certain brand.

According to Ndem et al. (2019), a survey on 60 community pharmacists in Nigeria showed that 92% consider online pharmacies as a way to promote pharmaceutical care, 73% are willing to offer the service, 68% believe that online pharmacies are convenient to patients, and 80% are concerned with counterfeit medications.

A questionnaire targeting 338 community pharmacies in Europe indicated that 50.6% have a website and of these 39.3% use their website as an online pharmacy (2.3% use it for prescription-only and OTC products, 54.9% for other products, and 38.3% for all kinds of products) (Lombardo et al., 2019). Table 1 represents some of the studies done on social media use by pharmacies and the use of online pharmacies.

**Table 1. Previous Studies on Social Media and Online Pharmacies**

<b>Author (year)</b>	<b>Topic</b>
Fittler et al. (2018), Abanmy et al. (2017), Yang et al. (2001), Gurău (2005), Roblek et al. (2018), Büttner et al. (2005)	Online pharmacies
Antheunis et al. (2013), Cutts et al. (2014), Benetoli et al. (2017), Moorhead et al. (2013)	Social media use by pharmacies

*Source:* Extracted from Literature.

### 3. Research Questions

Studies supporting the perception of use of digital tools by pharmacies in Lebanon are still not appropriately researched. To support the market with more data, this paper will answer the below research questions:

Q1: What is the pharmacist perception of the use of social media as a marketing tool for their pharmacies?

Q2: What is the pharmacist perception of the use of online pharmacies?

### 4. Research Methods

Primary and secondary data was collected to measure the pharmacist perception of the use of social media and online pharmacies to boost their business growth. Secondary data was collected from scientific articles through accessing different databases and resources, while the primary data was collected through distributing a questionnaire to 250 pharmacists in Lebanon between December 15, 2021 and January 31, 2022. The survey was established through Google forms and distributed through email and WhatsApp. As respondents voluntarily chose to participate in filling the questionnaire, the sampling technique is considered a non-probability sampling. After collecting the data, a descriptive statistical analysis was conducted. The questionnaire included 15 questions covering demographic information and questions regarding the pharmacists' perception of the use of social media and online pharmacies for professional purposes.

### 5. Findings

From the 250 pharmacists who participated in the survey, 110 respondents were males and 140 were females. In addition, most of the respondents were between the age of 35-54 years old (Table 2).

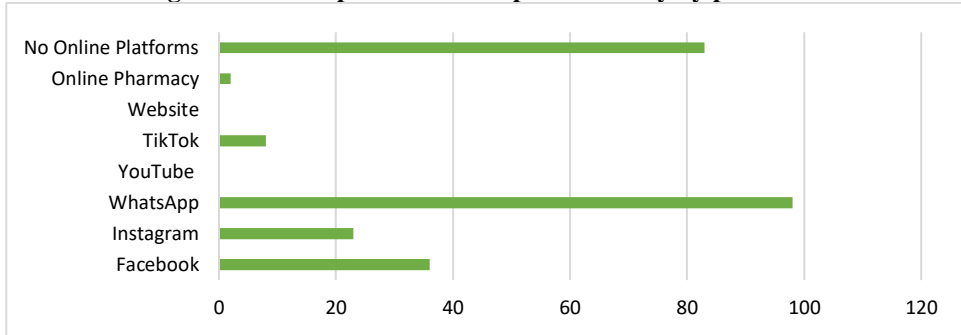
**Table 2. Gender, Age, and Experience**

<b>Gender</b>	Male	44%
	Female	56%
<b>Age</b>	25-34 years	16%
	35-44 years	36%
	45-54 years	30%
	Above 55 years	18%
<b>Experience</b>	0-9 years	30%
	10-19 years	16%
	20-29 years	34%
	30 and above	20%

*Source:* Author's development.

According to Figure 1, for professional purposes, 39.2% of the pharmacists use WhatsApp, 9.2% use Instagram, 14.4% use Facebook, 3.2% have a TikTok account, less than 1% have an online pharmacy and 33.2% do not use any of the online platforms.

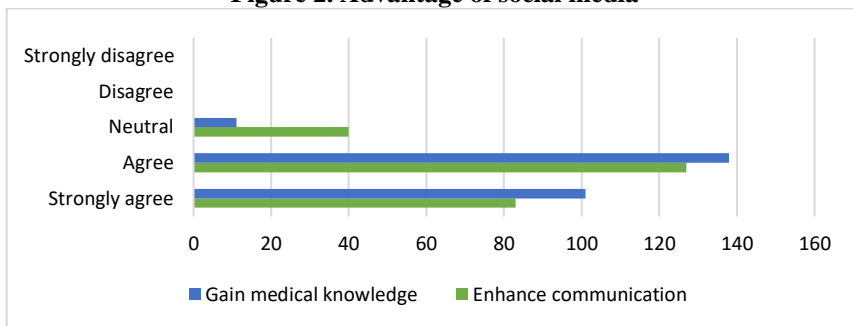
**Figure 1. Online platforms used professionally by pharmacists**



Source: Author's development.

According to Figure 2, 40% of the pharmacists strongly agree that patients' use of social media will help them gain medical knowledge, 55% agree, and 5% were neutral. On the other hand, 33% of the pharmacists strongly agree that social media enhances communication between the pharmacist and the patient, 51% agree, and 16% were neutral.

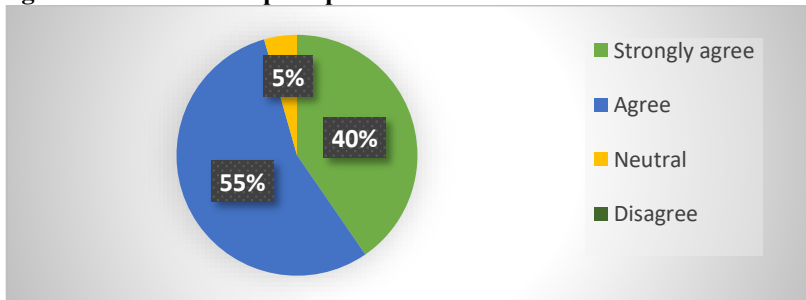
**Figure 2. Advantage of social media**



Source: Author's development.

As shown in Figure 3, 40% strongly agree to use social media in the future, 55% agree, and only 5% were neutral.

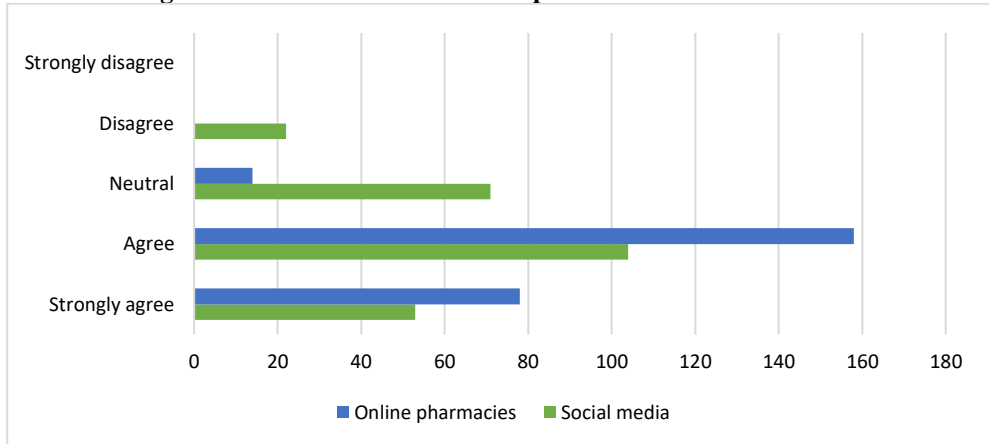
**Figure 3. Pharmacists' perception of the use of social media in the future**



Source: Author's development.

According to Figure 4, 31% of the pharmacists strongly agree that online pharmacies affect positively the financial status of the pharmacy, 63% agree and 6% were neutral. However, 21% of the pharmacists strongly agree that social media affects positively the financial status of the pharmacy, 42% agree, 28% were neutral, while 9% disagree.

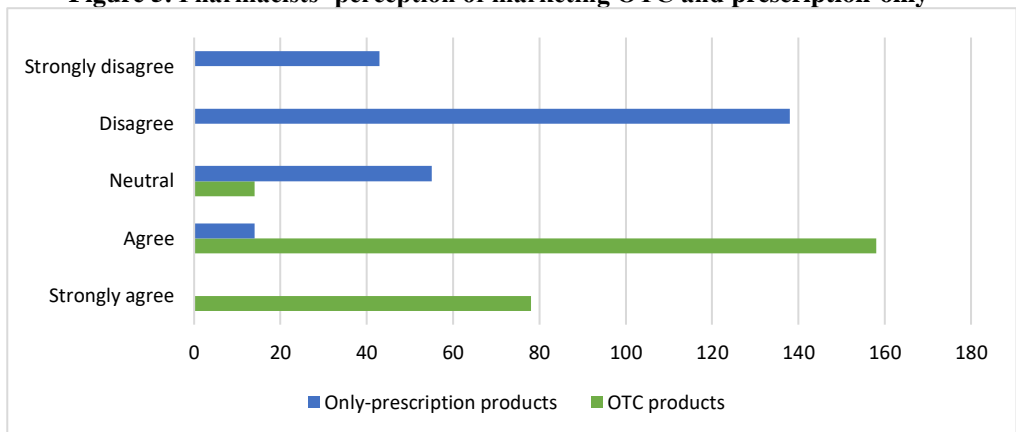
**Figure 4. Financial effect of online pharmacies and social media**



Source: Author's development.

According to Figure 5, 31% of the pharmacists strongly agree with marketing OTC products online, 63% agree, and 6% were neutral. Regarding marketing prescription-only products online, 6% of the pharmacists agree, 22% were neutral, 55% disagree and 17% strongly disagree.

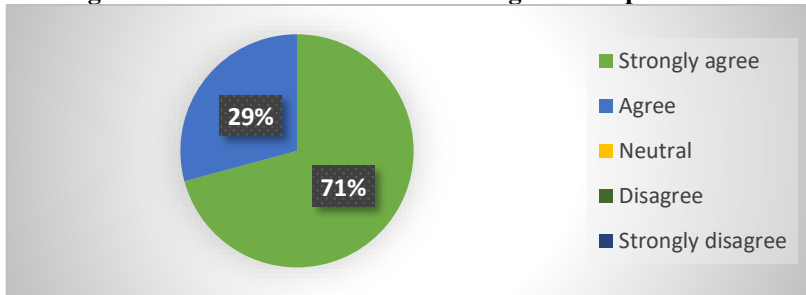
**Figure 5. Pharmacists' perception of marketing OTC and prescription-only**



Source: Author's development.

71% of the Lebanese pharmacists strongly agree that they are concerned with illegal online pharmacies and 29% agree (Figure 6).

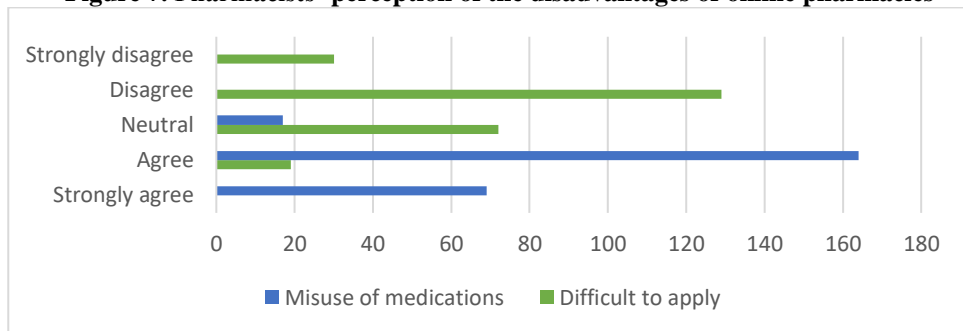
**Figure 6. Pharmacists concern with illegal online pharmacies**



Source: Author's development.

According to Figure 7, 7% of the pharmacists agree that online pharmacies are difficult to apply, 29% were neutral while 52% disagree and 12% strongly disagree. In addition, 28% agree that they are concerned with the misuse of online medications, 66% agree, and 6% were neutral.

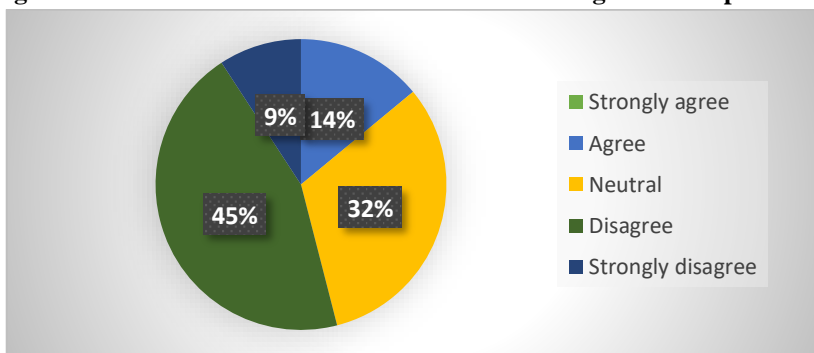
**Figure 7. Pharmacists' perception of the disadvantages of online pharmacies**



Source: Author's development.

Referring to figure 8, 14% agree to own an online pharmacy, 32% were neutral, 45% disagree, and 9% strongly disagree.

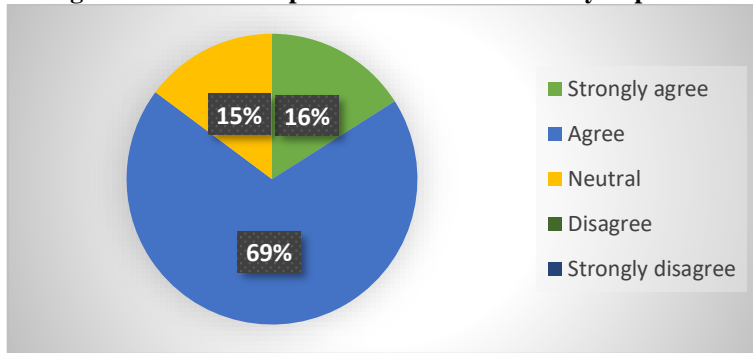
**Figure 8. Pharmacists' future consideration of owning an online pharmacy**



Source: Author's development.

According to Figure 9, 16% of the pharmacists strongly agree that online tools are satisfactory to patients, 69% agree, and 15% were neutral.

**Figure 9. Online tool perceived to be satisfactory to patients**



Source: Author's development.

## 6. Conclusions

When investigating the Lebanese pharmacists' perception of the use of social media as a marketing tool, it was shown that WhatsApp was the major tool used followed by Facebook and Instagram. Moreover, answering the first research question, most of the pharmacists are intending to use social media more frequently as they consider it an effective tool in supporting the pharmacy financially and in communicating and educating patients as shown by Nikolov et al. (2021). Although 33.2% of the pharmacists still did not use any online platform; however, most of the people use at least one of the social media platforms and they usually search for any information they need to know. Therefore, patients will gain more medical knowledge if pharmacists post health-related data to educate patients about medications.

Online pharmacies are still not a trend in Lebanon, where of the 250 pharmacists, only 1% owned an online pharmacy although most of them agree that it will improve the financial status of the pharmacy. Despite that pharmacists perceive that online pharmacies are easy to apply; however, they were concerned with the existence of illegal pharmacies and the misuse of the drugs where most pharmacists did not support the marketing of prescription-only products and supported more the marketing of OTC products. This result was approved by Lombardo et al. (2019). These concerns and whilst pharmacists agree that online platforms increase patient satisfaction; on the other hand, pharmacists prefer not to own an online pharmacy in an attempt to control drug prescriptions and dispensing of medications and to use social media as an awareness tool to educate patients, and this answers the second research question.

Oppositely, the limitations of the study lie in Lebanon's economic situation that can impose an unfair competition and affects pharmacists' opinion in owning an online pharmacy or paying for social media marketing. In addition, most of the participants were above 35 years and, usually, younger people tend to use more



online platforms than older people, keeping in mind that pharmacists possess more medical knowledge than technological knowledge.

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