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Community Pharmacists' Intention and Motivation to Pursue a Master's Degree in Pharmaceutical Marketing

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Abstract

Background*:* The pharmaceutical industry plays a major role in healthcare by improving health outcomes, fostering innovation, and ensuring the availability of essential medicines available to a wide population. As the pharmaceutical market develops in view of the Vision 2030 framework, it is imperative for community pharmacists to diversify their expertise in Saudi Arabia.

Objective*:* This study investigated the motivations, perceived facilitators, and barriers that affect community pharmacists in Saudi Arabia in pursuing a postgraduate degree in pharmaceutical marketing.

Methods*:* A cross-sectional survey was conducted among 194 community pharmacy professionals in Saudi Arabia between March and October 2024. Data were gathered via a structured questionnaire regarding pharmacists' demographics, motivations, perceived facilitating factors, and obstacles to obtaining a master's degree in pharmaceutical marketing. The data were analyzed in IBM's Statistical Package for the Social Sciences (SPSS) using descriptive statistics.

Results*:* In total, 194 participants expressed interest in a master's degree in pharmaceutical marketing, with 73.5% motivated by professional advancement, 75.2% by salary increase, and 72.6% by job stability. Flexibility in work schedules (59.3%) and the availability of scholarships (57.5%), coupled with accelerated degree programs and online course options, emerged as important facilitating factors. Significant barriers were program cost (51.3%), lack of time (57.1%), and tight work schedules (51.8%), together with lack of local programs and proximity to retirement.

Conclusion*:* The study shows that Saudi community pharmacists have a significant interest in pursuing pharmaceutical marketing at the higher education level, mainly for professional advancement and financial benefits. To increase enrollment, it is essential to address barriers, particularly those related to financial and logistical constraints. These findings are beneficial to policymakers, education institutions, and industry stakeholders to facilitate the development of targeted programs that meet the evolving needs of the pharmacy workforce in Saudi Arabia in alignment with the Vision 2030 objectives.

Keywords: Marketing, Pharmaceutical Marketing, Barriers, Motivations, Education, Master Degree

Introduction

The pharmaceutical industry has emerged as one of the most critical sectors in health care, not only for better healthcare outcomes but for innovation, accessibility, and the health of populations worldwide [1, 2]. The industry has progressively utilized marketing a strategic tool to translate existing scientific research into practice for improved community health [3]. In Saudi Arabia, the pharmaceutical market is gradually advancing, which aligns perfectly with the changes in the healthcare system and Saudi national development plan, known as Vision 2030 [4-7]. This national agenda has overall helped shift more focus towards diversification of the economy, the quality of health care, and education opportunities, including those that are aimed at delivering specialized training in health care [8]. However, with these changes, there is a need for community pharmacists to diversify their knowledge, particularly in the area of pharmaceutical marketing [9, 10].

Pharmaceutical marketing is a significant sector of the pharmacy industry because it focuses on promoting the proper use of drugs and services rather than creating a demand where there is none. Its objective is to ensure that there is an adequate level of understanding by the general public and other professionals within this field[11]. The extensive range of interests within the pharmaceutical marketing framework includes the assessment of market demands, legal requirements, healthcare policies, and patient safety approaches, indicating that this specialization is essential for pharmacy professionals who seek leadership positions within the industry [12]. Previous research findings indicate that acquiring a master's degree, particularly in pharmaceutical marketing, offers the best opportunity for empowering community pharmacists with optimal knowledge of marketing within a highly regulated, competitive environment that must attract the public, investors, and other stakeholders to enhance community health and ensure that investor focus is directed to the most effective strategies for delivering quality services and products to the public [13]. Skills and knowledge of this nature, along with their associated advantages, are of particular importance within the Saudi Arabian context, especially as the Saudi Arabian pharmaceutical market evolves. The competition from both multinational corporations and local producers, in their efforts to support the nation's health and wellness agenda outlined in the Vision 2030 framework, necessitates that pharmacies prioritize quality and excellent in the delivery of pharmaceutical services and products to sustain their operations [14,15].

A critical evaluation of existing literature indicates that many pharmacists across various nations are increasingly interested in postgraduate education, a growing interest which is fuelled by professional development goals and the desire to improve patient outcomes [16-18]. Advanced education in pharmacy, particularly in pharmaceutical marketing, has been demonstrated globally, especially in high-income economies, to significantly enhance career advancement, job satisfaction and professional autonomy, all of which are important to better public health outcomes [18]. However, there has been limited discussion about the factors that

influence pharmacists' decisions to obtain such specialized education in developing markets such as Saudi Arabia, with no previous research examining this issue from the perspective of both the motivating and critical factors, as well as barriers that hinder pharmaceutical professionals from advancing their education in pharmaceutical marketing. The development of educational programs that align with the pharmacists' professional objectives and with regional healthcare demands also depend upon understanding these factors. In particular, community pharmacists are unique positioned in the Saudi healthcare system. As the first point of contact for patients seeking medical advice, they perform a vital function as agents in public health education, medication management, and monitoring of chronic diseases. Community pharmacists have frontline roles but face fewer opportunities for career advancement than their counterparts in hospital or clinical settings [19, 20]. A master's degree in pharmaceutical marketing can facilitate pharmacy professionals' transition into various leadership positions within healthcare organizations. It may contribute to their professionally fulfillment while also participating in the broader initiative to improve healthcare quality and access in Saudi Arabia.

However, very little is known about the specific factors that cause community pharmacists in Saudi Arabia to contemplate pursuing postgraduate education in pharmaceutical marketing. Do those decisions revolve around money, professional reasons, or personal interest? What barriers do they face, and how do they value such specialized education? Policymakers, educators, and industry leaders have critical questions to ask around how to design programs and strategies to build the capacity of the healthcare workforce. The current study sought to fill this gap by investigating the reasons why community pharmacists in Saudi Arabia desire and intend to pursue a master's degree in pharmaceutical marketing. This research uses a corporate survey to identify the important factors in these decisions and possible obstacles to provide actionable insights that can inform the development of educational initiatives and policies.

Methods

Study Setting, Design, and Timeframe

A cross-sectional study was conducted among community pharmacy professionals from all regions of the Kingdom of Saudi Arabia. The study took place from April 1, 2024, to October 3, 2024, to examine community pharmacists' intentions and motivations to obtain a master's degree in pharmaceutical marketing. The Institutional Review Board of Taif University approved the study with ethical approval.

Inclusion and Exclusion Criteria

All licensed community pharmacy professionals currently practicing in Saudi Arabia who gave informed consent and volunteered to participate in the study were included. Those professionals who did not consent or were not actively

engaged in community pharmacy practice during the study period were excluded. In addition, pharmacists not interested in postgraduate education were excluded to ensure that the study focused on those contemplating further academic study.

Sample and Population

The population of interest for this study included those community pharmacists who are currently practicing in Saudi Arabia. A sample size of 194 volunteer participants was established using a convenience sampling method. The aim of the sample was to obtain a representative sample of pharmacists from all different areas, age groups, and career stages to better understand how the factors affect their interest in postgraduate education.

Ethical Approval

This study was approved by the Institutional Review Board of Taif University. All participants were informed of the purpose, risks, and benefits of the study and signed a consent form prior to participation, indicating their voluntary involvement in the research.

Study Variables

For this study, the dependent variables include the participants' motivations, the beneficial factors, and any perceived barriers to obtaining a master's degree in pharmaceutical marketing. Sociodemographic characteristics such as age, gender, years of practice, educational background, career satisfaction, and current role in pharmacy are independent variables (see Table 1 for more details). Other important variables included pharmacists' perceived relevance of marketing skills in their practice, and their expectations for career advancement post-graduation.

Data Collection

A structured questionnaire was developed to collect information on the motivations and intentions of community pharmacists to enroll into a master's programme in pharmaceutical marketing. The questionnaire was based on the existing literature in educational motivations and adapted to the Saudi context. It included four main sections: (1) demographic information, (2) motivations to pursue postgraduate education, (3) perceived helpful factors towards pursuing master's education in pharmaceutical marketing, and (4) perceived barriers to postgraduate programs enrollment. The questionnaire was reviewed by two experts in pharmacy education and marketing to ensure validity and pilot tested with 10 community pharmacists for clarity and relevance. Participants received the final version of the survey to provide the data utilized by the researcher to investigate the study topic.

Data Analysis and Quality Assurance

Cronbach's alpha coefficient was used to measure data reliability to check the internal consistency. The collected data were organized, checked for completeness, and coded for analysis. IBM's SPSS version 26 was used to

perform data analysis. The participants' motivations, intentions, and perceived barriers were summarized using descriptive statistics.

Results

Upon distributing the survey to the target study population of all professionals in the pharmacy sector across different regions of KSA, a total of 194 of the target participants completed the survey. The majority of the participants (52.0%, *n* = 101) were aged between 30 and 39 years. Among them, the largest proportion (82.0%, *n* = 159) were male (Figure 1).

Age

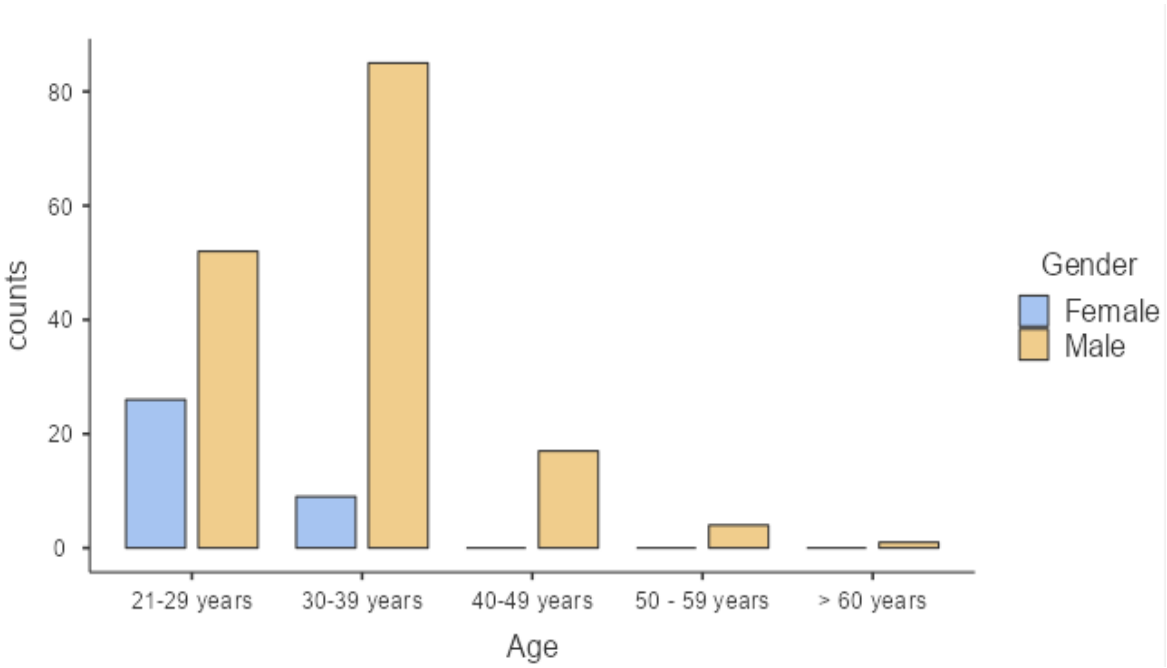

Figure 1: Age description of the participants by Gender

Other important demographic traits of the participants included nationality, marital status, location of work, and educational qualification. The summary of these descriptions are captured in Table 1.

Table 1: DESCRIPTIVE STATISTICS OF THE PARTICIPANTS

Descriptive Characteristic	Frequency	Percentage (%)
GENDER		
Female	35	18.0
Male	159	82.0
NATIONALITY		
Saudi	77	39.8
Non-Saudi	114	60.2
MARITAL STATUS		
Single	75	38.5
Married	115	59.3
Divorced	4	2.2
LOCATION OF WORK		
In a city	165	85.4
In a village	29	14.6
REGION OF PRACTICE		
Central region	28	14.6
Eastern region	45	23.0
Northern region	23	11.9
Southern region	50	25.7
Western region	48	24.8
HIGHEST EDUCATION QUALIFICATION		
Diploma	1	0.4
Bachelors	157	81.0
Master	2	0.9
Pharm. D	34	17.7
PROFESSIONAL LEVEL		
Consultant Pharmacist	7	3.5
Pharmacist	150	77.4
Senior Pharmacist	37	19.0

Interest in Pursuing Pharmaceutical Marketing Master's Education

The first variable guiding this investigation was the interest exhibited by participants in pursuing a Master's degree and further education in pharmaceutical marketing. A majority of the participants (76.8%, n = 149) were interested in pursuing a master's degree in pharmaceutical marketing (Figure 2).

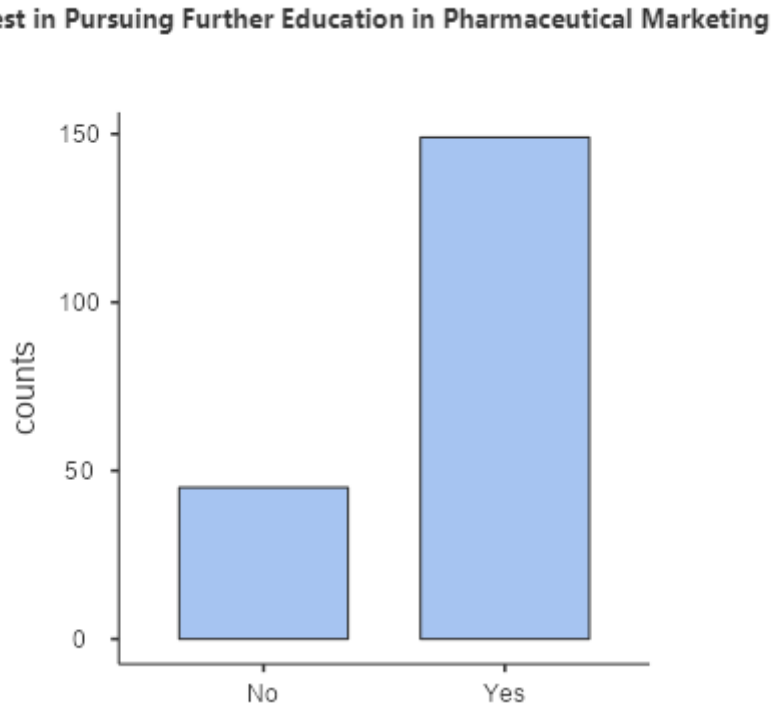

Figure 2

This interest was uniformly exhibited across the age groups of the participants, as illustrated in Table 2.

Table 2: Interest in Pharmaceutical Master's Education across Pharmacy Professionals by Age

	Age (years)				
	21-29	**30-39**	**40-49**	**50-59**	**Over 60**
Yes (n)	20	24	5	1	0
%	8.8	10.6	2.2	0.4	0.0
	21-29	**30-39**	**40-49**	**50-59**	**Over 60**
No (n)	70	87	14	4	1
%	31.0	38.5	6.2	1.8	0.4

Motivational Factors Among Pharmacy Professionals Toward Pursuing Master's Education in Pharmaceutical Marketing

A variety of factors emerged as core motivations for pharmacy professionals toward a desire to pursue a master's degree in pharmaceutical marketing. Participants indicated that professional goals, an increased salary, readiness for advancement opportunities in their careers, and job stability were leading motivations for their desire to pursue a master's degree in pharmaceutical marketing. Each of these factors was rated by a majority of the participants as either *very important motivation* or *extremely important motivation*, with 69.9% (*M* = 4.03, *SD* = 1.08) of the participants indicating that they ranked professional goals as either very or extremely important motivation toward achieving this level of education in pharmaceutical marketing. Similarly, 75.2% (*M* = 4.17, *SD* = 1.08) ranked salary increase as an important motivating factor towards their pursuit of a master's degree in pharmaceutical marketing. In relation to opportunities for advancement and job stability, a majority(73.5%;*M* = 4.14, *SD* = 1.08 and 72.6%;*M* = 4.03, *SD* = 1.08) ranked these as highly motivating factors when considering their decisions and plans to pursue higher education in pharmaceutical marketing (Table 3).

Table 3: Motivational Factors for Pursuit of Master's Degree in Pharmaceutical Marketing

Motivation Description	Distribution of Responses (%)							
	1	**2**	**3**	**4**	**5**	Mean	SD	Skewness
Professional Goals	2.2	7.5	20.4	24.8	45.1	4.03	1.08	-0.860
Salary Increase	1.8	8.4	14.6	21.2	54.0	4.17	1.08	-1.11
Advancement	1.8	9.3	15.5	20.4	53.1	4.14	1.08	-1.03
Job stability	2.2	6.6	18.6	17.7	54.9	4.16	1.09	-1.07

Perceived Facilitator Factors Among Pharmacy Professionals Toward Pursuing Master's Education in Pharmaceutical Marketing

In addition to the main motivational factors, participants indicated several other factors further enhanced their intention and likelihood of pursuing master's education in pharmaceutical marketing. Having a colleague or friend enrolled at the program was rated at 51.3% (*M* = 3.61, *SD* = 1.13) as a very or extremely useful factor. Likewise, flexible work schedules ranked very high, with 59.3% (*M*

= 3.79, *SD* = 1.07) believing that such accommodation would positively affect their decision. Financial support through scholarships and stipends also proved to be very important; 57.5% (*M* = 3.75, *SD* = 1.12) of respondents indicated that they would be inclined to enroll in the degree. Program structure was also a consideration as 58.9% (*M* = 3.63, *SD* = 1.03) revealed that an accelerated program would be attractive and 49.5% (*M* = 3.58, *SD* = 1.04) stated that online delivery of the program would be desirable. Face-to-face delivery of the degree courses was also relevant for 42% of participants (*M* = 3.37, *SD* = 1.16), showing that different methods of delivery would accommodate the preferences of a diverse population.

Table 4: Perceived Facilitator Factors Among Pharmacy Professionals Toward Pursuing Master's Education in Pharmaceutical Marketing

Barrier Factor Description	Distribution of Responses (%)							
	1	**2**	**3**	**4**	**5**	Mean	SD	Skewness
A colleague or friend enrolling at same time	3.1	13.3	32.3	22.1	29.2	3.61	1.13	-0.286
Flexible work schedule	0.9	10.6	27.4	25.7	33.6	3.79	1.07	-0.357
Scholarships and stipends	1.8	13.3	27.4	23.0	34.5	3.75	1.12	-0.380
Accelerated program	0.4	14.2	28.8	33.2	25.7	3.63	1.03	-0.091
Face-face program delivery	6.2	13.3	38.5	21.2	20.8	3.37	1.16	-0.164
Online program delivery	1.3	13.3	35.8	25.2	24.3	3.58	1.04	-0.095

Perceived Barriers Among Pharmacy Professionals Toward Pursuing Master's Education in Pharmaceutical Marketing

The survey highlighted a number of relevant barriers which were perceived by the pharmacy professionals as deterring them from pursuing a master's degree in pharmaceutical marketing. For example, one of the significant barriers mentioned was the cost of the program, rated by 51.3% of respondents (*M* = 3.61, *SD* = 1.13) as being a very major or an extreme hindrance. The inability to make more time

due to other commitments presented another important barrier. In this regard, 57.1% said this factor was important in their choice (*M* = 3.68, *SD* = 1.16). A limitation developed by tight schedules of work also existed as 51.8% indicated that this was a barrier for them (*M* = 3.60, *SD* = 1.12). Additionally, 52.2% reported that the unavailability of programs was a limiting factor (*M* = 3.56, *SD* = 1.18). Next, the participants' proximity to retirement at 45.3% served as a deterrent to further education at *M* = 2.74 (*SD* = 1.42). Finally, a reluctance to work with new technology served as a moderate barrier to 34.5% of participants' pursuit at *M* = 3.04 (*SD* = 1.33; Table 5).

Table 5: Perceived Barriers Among Pharmacy Professionals Toward Pursuing Master's Education in Pharmaceutical Marketing

Barrier Factor Description	Distribution of Responses (%)							
	1	**2**	**3**	**4**	**5**	Mean	SD	Skewness
Cost of the Program	3.1	13.3	32.3	22.1	29.2	3.61	1.13	-0.286
Lack of time	4.9	10.6	27.4	26.1	31.0	3.68	1.16	-0.514
Tight work schedule	2.2	15.9	30.1	23.5	28.3	3.60	1.12	-0.217
Unavailability of the program	5.3	13.7	28.8	24.3	27.9	3.56	1.18	-0.365
Proximity to retirement	27.4	16.8	27.0	11.5	17.5	2.74	1.42	0.246
Reluctance to technology	16.4	17.3	31.9	14.6	19.9	3.04	1.33	0.009

Discussion

This study explored the motivations, helpful factors, and barriers faced by community pharmacists in Saudi Arabia when considering pursuing a master's degree in pharmaceutical marketing. This study identified the motivations, facilitators, and barriers influencing community pharmacists' decisions to pursue a master's degree in pharmaceutical marketing in Saudi Arabia. In addition to offering a deeper understanding of the current state of the pharmacists' professional development and educational aspirations, these findings also support and build upon existing literature of pharmacists' professional development and educational aspirations [20]. The high level of interest of pharmacists (76.8%) in pursuing a master's degree in pharmaceutical marketing indicates a trend of advanced education in pharmaceutical sector. Global research shows that the

demand for postgraduate education is increasing for pharmacists, mainly due to their desire for professional development activities and to further their career advancement [21]. The motivational factors identified in this study, professional growth, salary increase, job stability, and career advancement, align closely with findings conducted in other high-income countries [22-23]. For example, concerning the advancement of pharmacists, they are typically drawn to leadership positions in the field of pharmaceutical marketing, which provide distinct professional and financial value [23].

The participants' emphasis on salary increase and job stability aligns with previous research indicating that financial rewards and job security are strong motivators for continued education in the pharmacy profession. Given the competitive job market and that specialized knowledge differentiates a pharmacist from their peers, the acquisition of higher education in this field is especially important [24]. With Saudi Arabia's healthcare system experiencing a transformation in line with Vision 2030, pharmacists are increasingly recognizing the necessity to learn skills that will enhance their standing in a rapidly evolving industry [6,7].

The study's findings also help to provide insight into several perceived facilitator factors which could increase the likelihood of pharmacists continuing their education. The results indicated that the primary facilitator factors were flexible work schedules and financial support (e.g., scholarships, stipends), with 59.3% and 57.5% of the respondents considering these to be very useful. This is consistent with previous research on institutional support for enhancing access to postgraduate education. Postgraduate programs attract higher enrollment in countries with robust financial aid structures and flexible education frameworks. Examining the important health and wellness goals outlined in Vision 2030, these facilitators can be expanded in Saudi Arabia to increase the participation rate in postgraduate education, particularly in specialized fields such as pharmaceutical marketing.

Pharmacy professionals encounter several barriers in pursuing a master's degree, with the most frequently cited obstacles being the cost of the program, the lack of time, and tight work schedules. These findings complement the existing literature, which has consistently highlighted that both financial and time constraints are the primary barriers to the professional advancement of pharmacists around the world. The reality for pharmacists in community settings is characterized by long work hours with little flexibility, according to the current literature [25]. Consequently, the difficulty of time management is not unique to Saudi Arabia; yet, targeted interventions (e.g., part-time or online programs) could alleviate this barrier.

An important factor regarding the technological advances in professional education was that 34.5% of participants reported reluctance to engage with new technology. Online program delivery was seen as a facilitative factor by 49.5% of

participants, but the moderate barrier posed by technology reluctance suggests that some pharmacists may still not be comfortable with moving to digital learning environments. This reflects previous research from other industries indicating that resistance to technological change can restrict access to online education, in particular among older professionals or those with less experience with digital platforms [26]. Increasing access to online postgraduate programs in pharmaceutical marketing requires addressing this barrier by providing more comprehensive digital literacy training and technical support.

Conclusion

The findings of this study have broader implications for educational policy and program development. With the expansion of the pharmaceutical sector in Saudi Arabia, the need for postgraduate programs designed to meet the particular concerns and difficulties of community pharmacists has increased. This aligns with Saudi Arabia's Vision 2030, which focuses on the development of human capital. Targeted efforts to mitigate barriers, such as offering scholarships, flexible program structure, and hybrid learning options, could help more pharmacists access specialized education. Furthermore, understanding the motivations of pharmacists for pursuing more advanced education will allow educators and policymakers to create more desirable and achievable programs which suit the personalized professional aspirations of pharmacists as well as the changing needs of the healthcare industry.

This study resulted in a nuanced understanding of the factors affecting Saudi Arabian community pharmacists' intentions to pursue postgraduate education in pharmaceutical marketing. By correlating these findings with existing research, it is clear that the motivations, enabling factors, and barriers identified in this study align with global trends while also highlighting unique challenges encountered by pharmacists in Saudi Arabia. To achieve Vision 2030, it is essential to address these challenges through focused policy interventions and program development that will lead to a more skilled, specialized pharmacy workforce.

Declarations

Ethical Approval: Ethical approval to conduct the research was issued from Taif University. The study was conducted in accordance with the Declaration of Helsinki.

Author Contributions: The author confirms sole responsibility for the following: study conception and design, data collection, analysis and interpretation of results, and manuscript preparation.

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Informed Consent Statement: The study did not use human participants, and there was no need for informed consent.

Data Availability Statement: All data in this study are included in this manuscript.

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Conflicts of Interest: I certify that I have no conflict of interest. I further certify that no other relationship, bias, or ethical conflict exists in this article.

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