

## **The Role of Medical Representatives in Marketing in the Kurdistan Region: An Evaluation**

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### **Abstract:**

The medical representative is responsible for increasing product awareness, addressing any inquiries, providing expert advice, and introducing new products to the market. This job requires a high level of knowledge and expertise in the medical field. The purpose of this research is to examine the significance of medical representatives in marketing endeavors within the Kurdistan Region. The study conducted by using an online questionnaire form which consisted of four sections. A group of medical representatives from Kurdistan completed the questionnaire. The questionnaire has four parts. The first component collected participant sociodemographic data. Second, multiple-choice questions covered "The Vital Role of Medical Representatives in Enhancing Pharmaceutical Marketing and Healthcare Professional Engagement." Third, medical representative marketing effectiveness multiple-choice questions were asked. The fourth portion included open-ended questions concerning medical representatives' Kurdistan marketing strengths. The participants include 163 people who participated in the study was 76.7 % male and 23.3% female. The correlations between gender and the various aspects of medical representatives' role and effectiveness are weak, and age group exhibits mostly insignificant correlations. Education level shows mixed correlations with knowledge about the product portfolio and relevant therapeutic areas, but negative correlations with providing valuable feedback. The results show limited correlation with the role of medical representatives, especially in terms of building relationships with healthcare professionals. Assessing communication skills, knowledge of the product portfolio and relevant therapeutic areas, and effectiveness in promoting products among healthcare professionals, the results suggest that higher education might indeed contribute to improved communication skills, knowledge, and effectiveness. The purpose of this research is to examine the significance of medical representatives in marketing endeavors within the Kurdistan Region.

**Keywords:** Medical representative, Marketing endeavors, Strategies, Significance, Expert advice, Performance

## 1. Introduction

Medical representatives provide invaluable services as communication between pharmaceutical companies and medical experts. building good professional relationships, promoting new products, and informing healthcare practitioners of the latest developments are all part of their job description. medical representatives who have received adequate training and education have been found to have a substantial impact on prescribing behavior, which in turn increases product acceptance and sales (calopietro et al., 2017).

Medical representatives for drug companies have been around since the beginning of the pharmaceutical industry in the late 19th and early 20th centuries. The demand for experts to market and educate healthcare practitioners about pharmaceutical companies' products occurred in response to the industry's rapid growth and diversification. These medical professionals, often called drug detailers or medical representatives were crucial in liaising with doctors and disseminating information about new medications. Evidence-based medical promotion became part of their remit throughout time, although ethical questions about marketing methods also surfaced at this time. As the use of computers and other digital devices continues to spread, medical representatives are adjusting their methods to take use of these new methods (Murshid and Mohaidin , 2017).

Medical representatives' communications with doctors and other medical professionals are important for the success of drug marketing operations. trust, credibility, and the provision of timely, relevant information have all been highlighted as particularly important in studies (jamshed et al., 2018).

It is imperative for medical representatives. to have adequate product knowledge to successfully handle the questions and concerns raised by physicians. according to the findings of recent studies, continuous development and training programs benefit both the performance of revenue-generating people and the overall success of advertising efforts (duvall et al., 2019).

The regulatory environment in the kurdistan region can impact how drug manufacturers and their agents go about promoting their products. trust among medical practitioners and avoidance of legal trouble require knowledge of and adherence to local legislation (sagban et al., 2016).

A major obstacle for medical representatives in the Kurdistan region due to their increasingly hectic schedules, doctors are becoming difficult to meet with by medical representatives, their inability to build meaningful connections and market products effectively may result from this lack of admission (aziz et al., 2017). Medical sales representatives in culturally and linguistically diverse areas like Kurdistan region may face difficulties communicating with local medical staff due to language and cultural barriers. For effective communication, awareness of and sensitivity to local standards and practices is essential (karim et al., 2018).

As the pharmaceutical industry in the Kurdistan region has expanded, competition among pharmaceutical businesses has heated up, and the market has become saturated. It can be difficult for medical sales representatives to set themselves apart and explain what makes their products special (abdullah et al., 2019).

This research study aims to investigate the role of medical representatives in the Kurdistan Region's pharmaceutical market. Assessing how well medical representatives in this area advertise and marketplace pharmaceutical items to healthcare professionals as well as organizations is a primary goal of this study. The study's primary goal is to help pharmaceutical companies in the region of Kurdistan improve the effectiveness and efficiency of their medical representatives by analyzing the factors that affect their performance and identifying the challenges they face. To better serve patients and enhance healthcare outcomes in the Kurdistan Region, we hope to contribute to developing pharmaceutical marketing practices there and optimize the relationship between medical representatives and healthcare professionals.

## **1. Materials and Methods**

### **1.1. Study Design:**

The research employed a cross-sectional survey design to collect data from 163 medical representatives in the Kurdistan Region. This design allows for a one-time assessment of the current situation without intervention or manipulation of variables.

### **1.2. Sampling:**

A convenience sampling technique was utilized to select a representative sample of medical representatives working in various pharmaceutical companies across the Kurdistan Region. Convenience sampling is a non-probability selection technique in which study participants are chosen because of their availability and convenience to the researcher. However, there is a risk that the results may not be accurate because the sample was not drawn at random from the target population (Stratton, 2021).

### **1.3. Participants:**

Medical representatives from different pharmaceutical companies operating in the Kurdistan Region participated in the study. Participation in pharmaceutical marketing activities was required as an inclusion criterion.

### **1.4. Data Collection:**

A structured questionnaire was developed and validated through a pilot study with professional doctors and professors. There were four sections in the questionnaire. The first section collected sociodemographic information about the participants. Second, the section consisted of multiple-choice questions on "The Vital Role of Medical Representatives in Enhancing Pharmaceutical Marketing and Healthcare Professional Engagement." Third, there were multiple-choice questions regarding the effectiveness of medical representatives in marketing. In the fourth section, open-ended questions were asked about the key strengths of medical representatives in Kurdistan marketing.

The study also explored areas where they may be able to improve their marketing effectiveness as a result of the potential improvements. Furthermore, it inquired about the methods used to ensure medical representatives' compliance with ethical guidelines and regulations during their marketing activities as part of the questionnaire. It was also examined whether gender influences pharmaceutical marketing as part of the survey. A final objective of the questionnaire was to identify which products were most influenced by marketing strategies, based on the experiences of the participants in Kurdistan region.

### **1.5. Data Collection Procedure:**

A structured questionnaire was administered to the medical representatives face-to-face during the data collection process. Questions and uncertainties were clarified during these meetings in order to ensure accurate responses. Medical representatives were approached in person during regional pharmaceutical conferences and at their respective workplaces, while healthcare professionals were contacted through medical institutions and pharmacies. The purpose and significance of the study were explained to potential participants, and voluntary participation was emphasized.

### **1.6. Data Analysis:**

In this study, the collected data was coded and analyzed using IBM SPSS version 22 to facilitate the coding and analysis of the data. This analysis was conducted using descriptive methods, which allowed the examination and summary of key characteristics and patterns present within the data based on the use of descriptive methods. An overview of a dataset is summarized and described

using descriptive statistics. By providing a clear and concise overview, researchers and readers can understand the variables' central tendencies, variability, and distribution (Mishra et al., 2019).

As part of the analysis, correlation analysis was also applied in order to examine the relationships and associations between different variables within the dataset. By combining these analytical approaches, the researchers have gained valuable insights and a better understanding of the data's patterns and connections, which contributed to the conclusions of the study based on the findings. An analysis of correlation is a statistical technique that is used to determine whether there is a relationship between two or more variables in a dataset. As a measure of the degree and direction of the association between variables, it can illustrate how changes in one variable might be related to changes in another variable. A correlation coefficient ranges from -1 to +1, which represents the result of a correlation analysis. Positive correlation coefficients indicate a direct relationship, which means that as one variable increases, so does the other. An inverse relationship is signified by a negative correlation coefficient, indicating that as one variable increases, the other tends to decrease. Correlation coefficients close to zero indicate no or weak relationships between variables (Gaili, W., 2022).

## **2. Results:**

### **3.1. Sociodemographic data**

The table 1 represents descriptive data on sociodemographic variables, including gender, age groups, highest educational level, provinces, and specialized companies, based on the responses of 163 participants. In terms of gender distribution, 76.7% of the participants identified as male, while 23.3% identified as female, resulting in a male-to-female ratio of approximately 3.3:1.

Regarding age groups, the majority of participants (55.2%) fell within the 18 to 25 age range, followed by 36.2% in the 26 to 30 age range. The mean age in the 31 to 35 age group was 1.58, with a standard deviation of 0.85, indicating a relatively low dispersion of ages in this group. The other age groups (31-35, 36-40, 41-45, and >46) had smaller percentages, collectively comprising around 8.1% of the participants. Moving on to the highest educational level, the most common educational background among the participants was a bachelor's in pharmacy, accounting for 58.9% of the sample. Other prevalent educational levels included bachelor's in medicine and surgery (14.1%) and bachelor's in microbiology (5.5%). The mean and standard deviation of educational level in the bachelor's in microbiology group were 2.63 and 2.48, respectively, indicating a relatively wide dispersion in the scores of this subgroup.

Additionally, the provinces of Erbil and Sulaymaniyah had higher representation in the sample, with 74.8% and 14.1% of participants from each province, respectively. Duhok accounted for the

remaining 11.0%. Finally, the specialized company distribution showed that most participants (55.2%) were associated with "Most Lines," while "Cosmetics" and "Dermatological" companies had the lowest representation, each with 5.5% and 7.4% of the sample, respectively.

**Table 1: Descriptive data of sociodemographic data**

|                                    | Variables                        | No.                    | %          | Mean | Std. Deviation |
|------------------------------------|----------------------------------|------------------------|------------|------|----------------|
| <b>Gender</b>                      | Female                           | 38                     | 23.3       |      |                |
|                                    | Male                             | 125                    | 76.7       | 1.76 | 0.42           |
|                                    | <b>Total</b>                     | 163                    | 100        |      |                |
| <b>Age Groups</b>                  | 18 – 25                          | 90                     | 55.2       |      |                |
|                                    | 26-30                            | 59                     | 36.2       |      |                |
|                                    | 31-35                            | 10                     | 6.1        | 1.58 | 0.85           |
|                                    | 36-40                            | 1                      | .6         |      |                |
|                                    | 41-45                            | 1                      | .6         |      |                |
|                                    | >46                              | 2                      | 1.2        |      |                |
|                                    | Total                            | 163                    | 100        |      |                |
|                                    | <b>Highest Educational level</b> | Bachelor's in pharmacy | 96         | 58.9 |                |
| Pharmacy Student                   |                                  | 5                      | 3.1        |      |                |
| Bachelor's in medicine and surgery |                                  | 23                     | 14.1       |      |                |
| Bachelor's in microbiology         |                                  | 9                      | 5.5        | 2.63 | 2.48           |
| Bachelor's in biology              |                                  | 6                      | 3.7        |      |                |
| Bachelor's in chemistry            |                                  | 5                      | 3.1        |      |                |
| Dentistry                          |                                  | 4                      | 2.5        |      |                |
| College of Nursing                 |                                  | 5                      | 3.1        |      |                |
| Others                             |                                  | 10                     | 6.1        |      |                |
| Total                              |                                  | 163                    | 100.0      |      |                |
| <b>Provinces</b>                   | Erbil                            | 122                    | 74.8       |      |                |
|                                    | Sulaymaniyah                     | 23                     | 14.1       | 1.36 | 0.67           |
|                                    | Duhok                            | 18                     | 11.0       |      |                |
|                                    | <b>Total</b>                     | <b>163</b>             | <b>100</b> |      |                |
| <b>Specialized Company</b>         | Cosmetics                        | 9                      | 5.5        |      |                |

|                            |            |              |      |      |
|----------------------------|------------|--------------|------|------|
| Dermatological             | 12         | 7.4          |      |      |
| Cardiovascular medications | 25         | 15.3         |      |      |
| Dental Products            | 4          | 2.5          | 5.37 | 2.08 |
| Gynecological              | 17         | 10.4         |      |      |
| Supplements                | 6          | 3.7          |      |      |
| Most Lines                 | 90         | 55.2         |      |      |
| <b>Total</b>               | <b>163</b> | <b>100.0</b> |      |      |

### 3.2. The Vital Role of Medical Representatives in Enhancing Pharmaceutical Marketing and Healthcare Professional Engagement

The data presented in (table 2) based on responses from 163 healthcare professionals regarding the importance of medical representatives in pharmaceutical marketing. 39.3% of respondents agree, and another 40.5% strongly agree that medical representatives play an important role in promoting products to healthcare professionals. This indicates a significant consensus among the participants regarding the importance of medical representatives in the pharmaceutical industry. Most respondents acknowledge the value medical representatives play, with only 1.8 % percent disagreeing.

Results shows 39.3% of respondents agree and 32.5% strongly agree that medical representatives are good at communicating product features, benefits, and indications to healthcare professionals. These two categories make up a large percentage (71.8%) of participants who think medical representatives are good at communicating. On the other hand, only 4.9% disagree. 19% of respondents remain neutral, suggesting that communication effectiveness could be improved.

A successful relationship between medical representatives and healthcare professionals is evident in the data. Almost half of respondents (47.2%) agree, while 30.7% strongly agree. The data indicates that medical representatives are effective relationship builders. There is only a small proportion of participants (3.7%) who disagree. 12.9% of respondents remain neutral, possibly indicating that these relationships can be strengthened.

The pharmaceutical company provides valuable feedback to marketing strategies, and 48.5% of respondents agree, with 27.6% strongly agreeing. Medical representatives have a key role to play in gathering valuable insights from healthcare professionals, as evidenced by a large proportion of participants. Despite 17.8% of respondents remaining neutral, a minimal percentage (1.8%) disagrees, which underscores the importance of medical representatives.

Medical representatives are trained in marketing strategies and techniques. According to the results, 49.7% of respondents agree, and 25.2% strongly agree that medical representatives should receive training. The pharmaceutical industry is doing a good job of equipping medical representatives with the necessary skills and knowledge. However, 14.7% remain neutral, suggesting that the training programs might need some improvement.

**Table 2: The Vital Role of Medical Representatives in Enhancing Pharmaceutical Marketing and Healthcare Professional Engagement**

|  | Variables         | No. | %          | Mean       | Std. Deviation |
|--|-------------------|-----|------------|------------|----------------|
| <b>Medical representatives play a crucial role in promoting their products to healthcare professionals.</b>                            | Agree             | 64  | 39.3       |            |                |
|  | Disagree          | 3   | 1.8        |            |                |
|  | Neutral           | 19  | 11.7       | 2.73       | 1.48           |
|  | Strongly Agree    | 66  | 40.5       | .          |                |
|  | Strongly Disagree | 11  | 6.7        |            |                |
|  | <b>Total</b>      |     | <b>163</b> | <b>100</b> |                |
| <b>Medical representatives effectively communicate product features, benefits, and indications to healthcare professionals.</b>        | Agree             | 64  | 39.3       |            |                |
|  | Disagree          | 8   | 4.9        |            |                |
|  | Neutral           | 31  | 19.0       | 2.57       | 1.39           |
|  | Strongly Agree    | 53  | 32.5       |            |                |
|  | Strongly Disagree | 7   | 4.3        |            |                |
|  | <b>Total</b>      |     | <b>163</b> | <b>100</b> |                |
| <b>Medical representatives build and maintain relationships with healthcare professionals to increase product awareness and usage.</b> | Agree             | 77  | 47.2       |            |                |
|  | Disagree          | 6   | 3.7        |            |                |
|  | Neutral           | 21  | 12.9       | 2.43       | 1.47           |
|  | Strongly Agree    | 50  | 30.7       |            |                |
|  | Strongly Disagree | 9   | 5.5        |            |                |
|  | <b>Total</b>      |     | <b>163</b> | <b>100</b> |                |
| <b>Medical representatives provide valuable feedback from healthcare professionals, which helps in shaping marketing strategies</b>    | Agree             | 79  | 48.5       |            |                |
|  | Disagree          | 3   | 1.8        |            |                |



|  |                   |            |            |      |      |
|--|-------------------|------------|------------|------|------|
|  | Neutral           | 29         | 17.8       | 2.37 | 1.42 |
|  | Strongly Agree    | 45         | 27.6       |      |      |
|  | Strongly Disagree | 7          | 4.3        |      |      |
|  | <b>Total</b>      | <b>163</b> | <b>100</b> |      |      |
| <b>Medical representatives are trained on marketing techniques and strategies to enhance their promotional activities.</b> | Agree             | 81         | 49.7       |      |      |
|  | Disagree          | 8          | 4.9        |      |      |
|  | Neutral           | 24         | 14.7       | 2.32 | 1.43 |
|  | Strongly Agree    | 41         | 25.2       |      |      |
|  | Strongly Disagree | 9          | 5.5        |      |      |
|  | <b>Total</b>      | <b>163</b> | <b>100</b> |      |      |

### 3.3. Effectiveness of Medical Representatives in Marketing

According to the (table 3) the results shows that the 26.4% of the respondents rated medical representatives' communication skills as excellent, while 36.8% rated them as good for delivering product information. The results indicate that a significant majority of respondents are satisfied with the representatives' ability to communicate product information. Nevertheless, a significant fraction (4.3%) rated their communication skills as below average. The mean score of 2.94 with a standard deviation of 1.31 indicates moderate variation in responses. This suggests that while many respondents find medical representatives' communication skills effective, improvements can still be made to address those who find them below average or poor. The representatives' knowledge of the product portfolio and relevant therapeutic areas was rated excellent by 23.3% of respondents, while good by 44.2%. According to this, the representatives' understanding of their products and therapeutic areas is generally viewed positively. However, 5.5% of respondents rated their knowledge as below average. Based on the mean score of 3.03 and the standard deviation of 1.25, it appears that respondents have a moderate level of agreement about the representatives' knowledge. Medical representatives' effectiveness in promoting and increasing product usage among healthcare professionals was rated excellent by 27.0% of respondents and good by 45.4%. The results suggest a predominantly positive view of the effectiveness of medical representatives in promoting product usage. In addition, a small percentage (3.7%) rated their effectiveness as poor. With a mean score of 3.07 and a standard deviation of 1.23, the variance in responses suggests differing opinions about the effectiveness of the representatives.

**Table 3: Effectiveness of Medical Representatives in Marketing**

|   | Variables     | No.        | %          | Mean | Std. Deviation |
|---|---------------|------------|------------|------|----------------|
| <b>Communication skills in delivering product information</b>                                 | Average       | 42         | 25.8       |      | 1.31           |
|   | Below Average | 7          | 4.3        |      |                |
|   | Excellent     | 43         | 26.4       | 2.94 |                |
|   | Good          | 60         | 36.8       | .    |                |
|   | Poor          | 11         | 6.7        |      |                |
|   | <b>Total</b>  | <b>163</b> | <b>100</b> |      |                |
| <b>Knowledge about the product portfolio and relevant therapeutic areas</b>                   | Average       | 37         | 22.7       |      | 1.25           |
|   | Below Average | 9          | 5.5        |      |                |
|   | Excellent     | 38         | 23.3       | 3.03 |                |
|   | Good          | 72         | 44.2       |      |                |
|   | Poor          | 7          | 4.3        |      |                |
|   | <b>Total</b>  | <b>163</b> | <b>100</b> |      |                |
| <b>Effectiveness in promoting and increasing product usage among healthcare professionals</b> | Average       | 36         | 22.1       |      | 1.23           |
|   | Below Average | 3          | 1.8        |      |                |
|   | Excellent     | 44         | 27.0       | 3.07 |                |
|   | Good          | 74         | 45.4       |      |                |
|   | Poor          | 6          | 3.7        |      |                |
|   | <b>Total</b>  | <b>163</b> | <b>100</b> |      |                |

### 3.4. Correlations between sociodemographic data with role and effectiveness of medical representatives in enhancing pharmaceutical marketing and healthcare professional engagement.

Starting with gender, the correlations show notably weak associations between gender and the various aspects of medical representatives' role and effectiveness. Gender demonstrates very minimal negative correlations, such as -0.079 with the role of crucial promotion, indicating that gender might not be a significant determinant in this context. Similarly, age group exhibits mostly negligible correlations, with the highest being 0.065, suggesting that age might not strongly influence the role and effectiveness of medical representatives.

Education level, however, displays mixed correlations. Education level reveals a slight positive correlation of 0.071 with knowledge about the product portfolio and relevant therapeutic areas, while

showing a negative correlation of -0.204 with providing valuable feedback. This indicates that higher education might lead to a better understanding of product details but could potentially hinder the feedback process. The province of operation shows limited correlation with the role of medical representatives. Notably, there's a negative correlation of -0.114 between province and the crucial aspect of building and maintaining relationships with healthcare professionals. This suggests that the dynamics of engagement might indeed vary significantly across regions, impacting the relationship-building aspect of medical representatives' role. Regarding whether medical representatives work for a specialized company, a significant positive correlation of 0.075 is observed with effectively communicating product features, benefits, and indications. This implies that being associated with a specialized company might confer advantages in conveying elaborate product information.

Assessing communication skills in delivering product information, a negative correlation of -0.133 with province suggests that representatives in certain regions might possess better communication abilities. Interestingly, education level exhibits a positive correlation of 0.086, indicating that higher education might indeed contribute to improved communication skills. The correlation between knowledge about the product portfolio and relevant therapeutic areas and gender shows a negative value of -0.091, implying that females might have a slightly better understanding in these areas. Education level, however, demonstrates a positive correlation of 0.072, reaffirming that education contributes to enhanced product knowledge.

Finally, the effectiveness of medical representatives in promoting products among healthcare professionals displays weak correlations with the examined sociodemographic factors. Education level again stands out with a positive correlation of 0.081, suggesting that better-educated representatives might be more effective in this pivotal aspect.

**Table 4: Correlations between sociodemographic data with role and effectiveness of medical representatives in enhancing pharmaceutical marketing and healthcare professional engagement**

|  | Gender | Age Group | Education Level | Province | Specialized Company |
|--|--------|-----------|-----------------|----------|---------------------|
| Medical representatives play a crucial role in promoting their products to healthcare professionals. | -0.079 | 0.016     | -0.018          | -0.114   | 0.048               |
| Medical representatives effectively communicate product features, benefits, and indications to       | -0.011 | 0.019     | -0.051          | -0.026   | 0.075               |

|   |        |        |           |        |        |
|---|--------|--------|-----------|--------|--------|
| healthcare professionals.   |        |        |           |        |        |
| Medical representatives build and maintain relationships with healthcare professionals to increase product awareness and usage. | 0.015  | 0.065  | -0.071    | 0.014  | 0.042  |
| Medical representatives provide valuable feedback from healthcare professionals, which helps in shaping marketing strategies.   | 0.033  | 0.065  | -0.204 ** | 0.141  | 0.018  |
| Medical representatives are trained on marketing techniques and strategies to enhance their promotional activities.             | 0.093  | 0.056  | 0.021     | -0.031 | 0.031  |
| Communication skills in delivering product information  | -0.090 | -0.087 | 0.024     | 0.086  | -0.133 |
| Knowledge about the product portfolio and relevant therapeutic areas  | -0.091 | 0.018  | 0.071     | -0.087 | 0.072  |
| Effectiveness in promoting and increasing product usage among healthcare professionals  | -0.053 | -0.026 | 0.081     | 0.045  | 0.043  |

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

The (figure 1) depicting the perspectives of participants highlights the primary strengths recognized in medical representatives engaged in pharmaceutical marketing within the Kurdistan region. Notably, effective communication and adept relationship building emerge as the most prominent attributes, garnering 25% of the responses. Following closely is the commendable possession of in-depth product knowledge, constituting 20% of the viewpoint. Furthermore, participants acknowledge the importance of scientific training, accounting for 15% of the sentiments, in aiding the justification of products. Dedication and loyalty in work receive recognition at 10%, signifying their role in shaping positive impressions. The initiative to educate healthcare professionals about new medications holds a modest 5%, while establishing strong professional relationships and leveraging medical backgrounds each secure 15% and 10% respectively. This

comprehensive analysis of participant responses highlights the multifaceted strengths of medical representatives in the Kurdistan region's pharmaceutical marketing landscape.

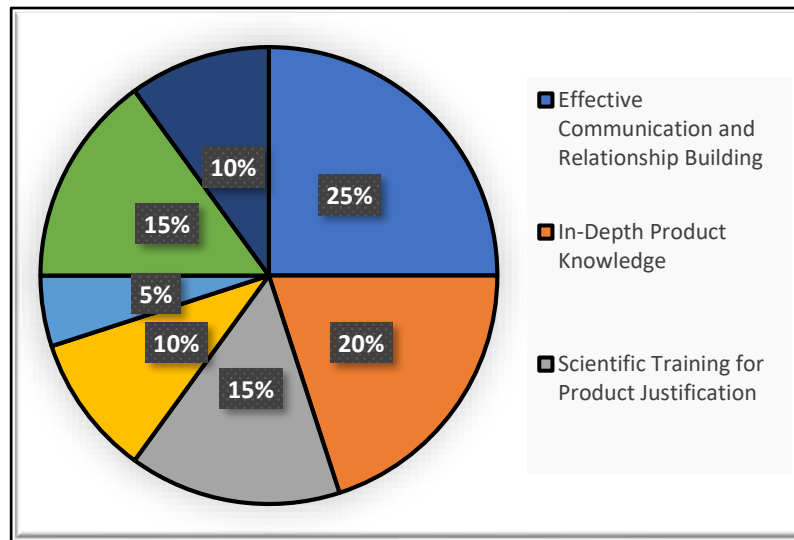


Figure 1: The key strengths of medical representatives view in marketing in Kurdistan region

Figure 2 demonstrates the primary weaknesses perceived in the marketing practices of medical representatives operating in the Kurdistan Region. The chart highlights the distribution of these weaknesses, indicating the percentage weight each aspect carries. The most significant challenges include communication skill issues, accounting for 30% of the identified weaknesses, which may hinder effective interactions between medical representatives and healthcare professionals. Lack of product knowledge follows at 20%, suggesting that representatives might struggle to comprehensively understand the details of the medical products they are promoting. Balancing sales and patient interests also hold a substantial share at 20%, reflecting the delicate task of aligning commercial goals with the well-being of patients. Other significant issues encompass accessing healthcare professionals (10%), scientific training deficiencies (10%), and ethical concerns related to honesty in product promotion (5%). Lastly, dealing with market competition and potential ethical dilemmas completes the list with a combined 5%. These findings collectively shed light on the key areas where medical representatives could benefit from improvement and targeted training to enhance their overall marketing effectiveness.

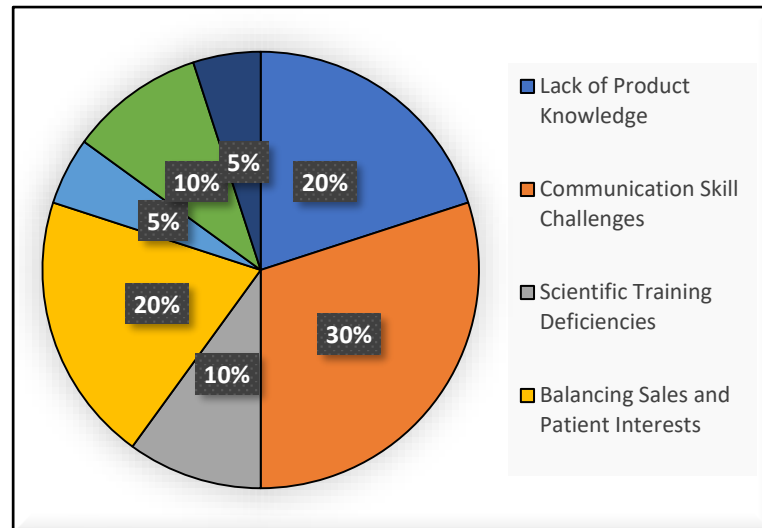


Figure 2: The key weaknesses of medical representatives view in marketing in Kurdistan Region

There are a number of areas in the Kurdistan Region that need to be improved, as shown in Figure 3. The Kurdistan Region Medical Representatives are tasked with improving these areas.

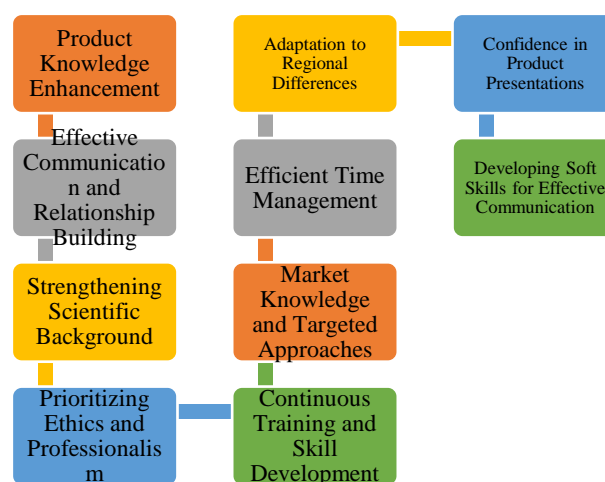


Figure 3 Areas for Improvement for Medical Representatives in Kurdistan Region

Figure 4 offers a comprehensive breakdown of the strategies implemented to ensure the adherence of medical representatives to ethical guidelines and regulations during their marketing activities. The chart delineates the distribution of these strategies, reflecting their relative importance. Notably, a focus on "Up-to-Date Product Knowledge and Research" occupies a prominent 25%, underscoring the pivotal role of staying informed in upholding ethical conduct. Concurrently, the significant influence of "Healthcare Professionals on Ethical Conduct" also commands 25%, highlighting the impact of collaborative peer relationships on ethical decision-making processes.

Moreover, the chart reveals the dual approach of "Self-Discipline and Ethical Commitment" and "Company Policies and Monitoring," each accounting for 20%. This duality underscores the

necessity of both individual moral responsibility and organizational oversight in maintaining ethical behavior. Lastly, "Accountability and Feedback Mechanisms" constitute 10%, indicating the value of structured frameworks for reporting and assessment. Collectively, the figure portrays a holistic strategy that combines the continual pursuit of knowledge, the influence of professional peers, individual commitment, company guidance, and robust accountability measures. This multifaceted approach aligns with industry best practices to ensure that medical representatives uphold ethical standards while conducting their marketing activities.

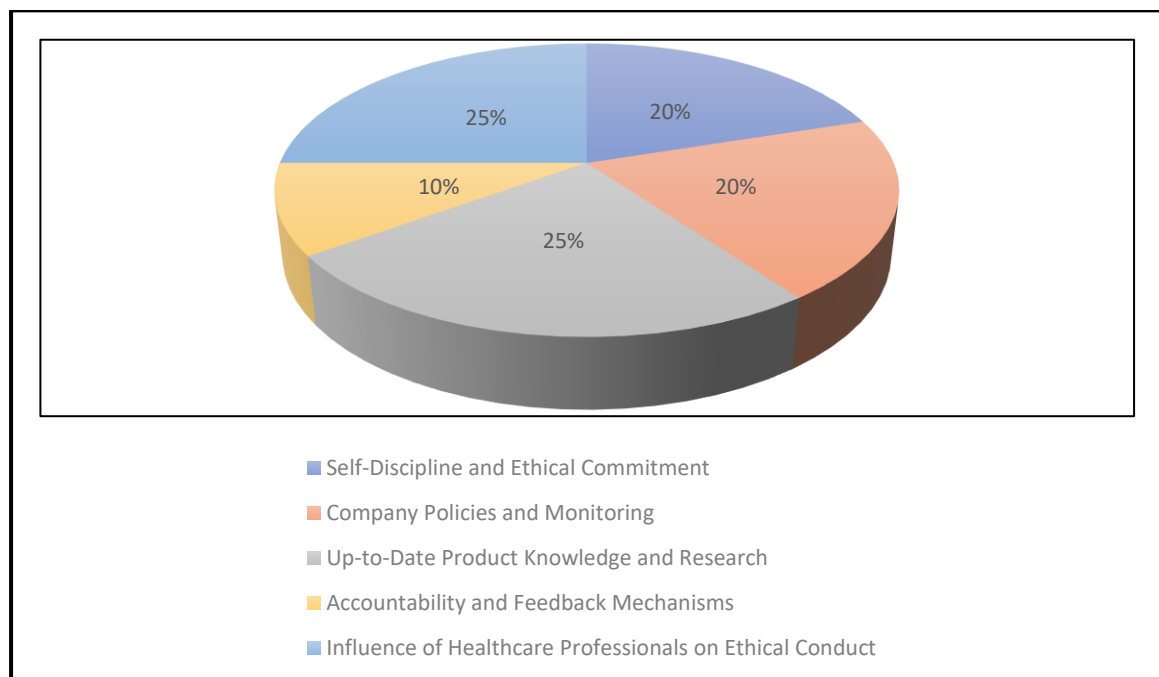


Figure 4 Ensuring Ethical Compliance of Medical Representatives in Marketing in Kurdistan Region

Figure 5 shows the potential impact of gender on pharmaceutical marketing in the Kurdistan region. The data presented shows that a majority, 69.3%, acknowledge that gender does indeed have an effect on pharmaceutical marketing practices. In contrast, 30.7% of respondents believe that gender does not play a significant role in influencing these practices. This split suggests a prevalent awareness among the surveyed individuals that gender dynamics could play a role in shaping how pharmaceutical products are marketed in the Kurdistan region. The figure underscores the importance of considering gender-related factors and their implications for marketing strategies in this situation. Gender's impact on medical representatives' effectiveness is varied in the responses. Some doctors prefer female representatives, especially in certain medical professions, while others think male representatives are more successful. Attractiveness, appearance, and communication skills can help any representative succeed. Some doctors prefer opposite-gender candidates, while others don't care. There is no clear consensus, and medical representatives' performance appears to

be influenced by different individual and contextual circumstances, making gender-based judgements challenging.

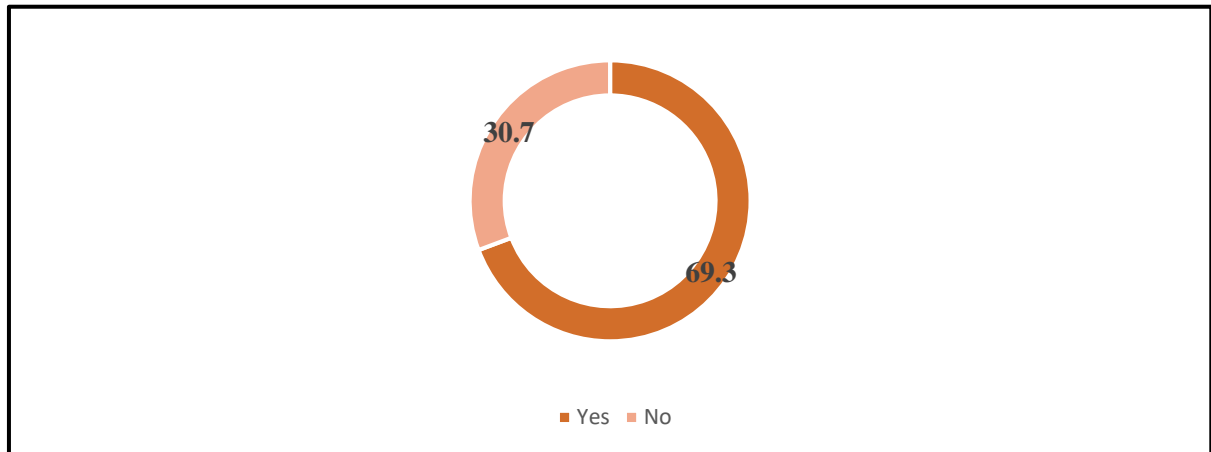


Figure 5 Gender affects marketing pharmaceutical in Kurdistan region?

Medical representatives' suggestions for influencing doctors to advertise their company's drugs. The frequency column shows how often certain factors were mentioned in responses: "High" refers to frequently, "Moderate" means somewhat, and "Low" means rarely. Gifts and incentives, scientific excursions with financial support, positive relationships and trust, promotional deals and support, and product quality and efficacy influence physicians. Achieving these results depends on physician choices and regional market dynamics.

Figure 6 highlights the effect of marketing campaigns on several product groups in the pharmaceutical sector in the Kurdistan Region. Antibiotics (25%) and medications for chronic diseases (30%) stand out as the primary targets of marketing efforts in that setting. This shows that bacterial infection prevention and chronic disease management are high on the list of priorities for medical professionals in the region. A growing focus on preventative care and well-being has also drawn more marketing attention to supplements (14% of total occurrences). Next in popularity are items for the female reproductive system (at 8%) and the cosmetics industry (10%). These figures suggest that marketing efforts are extending to include women's health and personal hygiene products, demonstrating a holistic strategy towards satisfying a wide range of healthcare requirements. Despite making up only 2%-4% of mentions, other categories, including as analgesics, dermatological treatments, and CNS line products, still contribute to the marketing landscape as a whole. Intriguingly, 8% of the references are to combination products, suggesting a preference for flexible solutions that can tackle numerous health issues at once.

The picture, in essence, illustrates how marketing initiatives and current health concerns in the Kurdistan Region are strategically aligned. The focus on vitamins and cosmetics indicates a



proactive approach to well-being and personal care, while the focus on antibiotics and treatments for chronic diseases emphasizes a dedication to addressing prevalent infections and health issues. The nuanced distribution of marketing resources across product categories is indicative of a well-rounded approach to meet the varied healthcare requirements of the region's population.

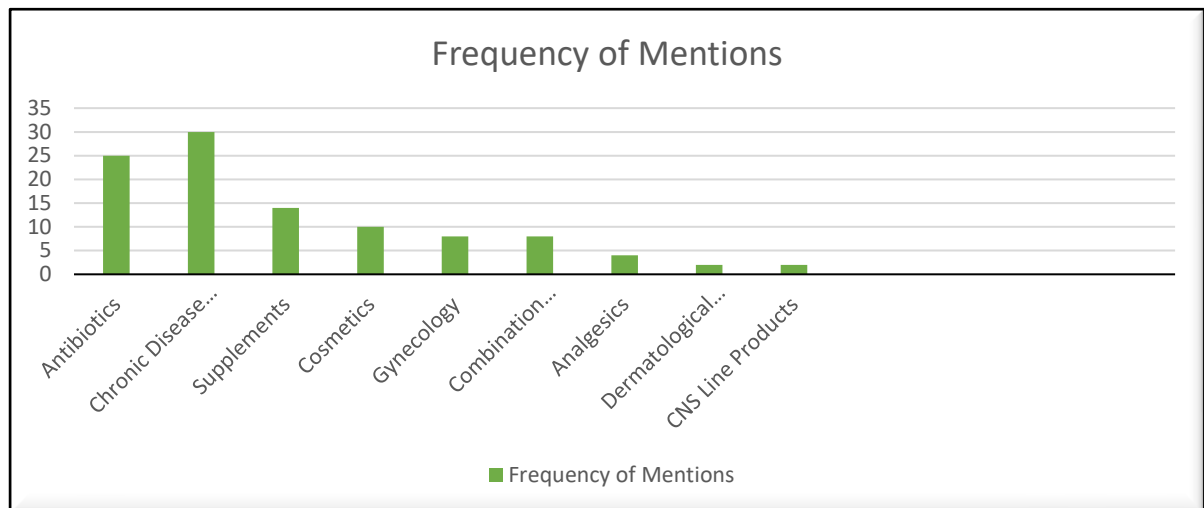


Figure 6: Based on your experience what product mostly enhanced by marketing strategy in Kurdistan Region

### 3. Discussion:

Based on the available data, the study shows that there is a higher proportion of male participants than female participants. It is believed that this disparity is caused by the fact that men predominantly dominate the medical representative profession in the Kurdistan region. Men in many Asian countries have historically dominated medical representatives or pharmaceutical sales representatives. Culture, gender roles, and societal expectations often assign men to higher-paying, more prestigious careers. In recent years, however, there has been a gradual shift toward increased female representation in the medical profession, including the pharmaceutical industry (WHO, 2022). Among the specialized companies in the Kurdistan region, one has a dominant category of products called "Most Lines," a term used to describe the company's diverse range of products. Conversely, dental products are the category with the lowest market share of all the categories. For a better understanding of the factors contributing to the success of the "Most Lines" category in the region and the challenges that the dental products category faces in the region, it will be necessary to conduct further analysis.

According to respondents, medical representatives play a vital role in pharmaceutical marketing and healthcare professional engagement. Most participants strongly agree that medical representatives play a crucial role in promoting products to healthcare professionals, communicating product

features effectively, and building relationships to increase product awareness. Additionally, respondents strongly agree that medical representatives provide valuable feedback, help shape marketing strategies, and are trained in marketing.

The importance of medical representatives in these fields is also strongly disagreed by a small percentage of participants. Overall, medical representatives' role in the pharmaceutical industry is positively perceived, even though some respondents remain neutral. They represent the industry's efforts in training, product promotion, communication, relationship building, and feedback provision. Medical representatives play a crucial role in pharmaceutical marketing and healthcare professional engagement.

Pharmaceutical marketing and healthcare professional engagement are enhanced by medical representatives in Asia. In addition to promoting and educating healthcare professionals about pharmaceutical products, they have in-depth product knowledge. They foster brand loyalty and trust. Also, they provide continued medical education, gather market intelligence, and navigate various regulatory environments. Pharma companies in the region benefit from their efforts by ensuring widespread product distribution and availability (Pray, 2019).

It is evident that there are still areas that medical representatives need to improve in Kurdistan region, as shown by some respondents' less favorable ratings, despite the fact that these representatives generally receive positive ratings for their communication skills, knowledge, and effectiveness. As part of their role as medical representatives, medical representatives need continuous training and development in order to enhance their communication skills, deepen their product knowledge, and optimize their effectiveness in promoting healthcare products to their clients.

The correlations provide nuanced insights into the relationships between sociodemographic factors and medical representatives' multifaceted role and effectiveness in pharmaceutical marketing and healthcare professional engagement within the Kurdistan region. While some correlations are statistically significant, the generally weak correlations emphasize that numerous other factors beyond the scope of this analysis likely significantly influence medical representatives' success in their roles. These findings underline the intricate nature of pharmaceutical marketing and healthcare professional engagement, influenced by many factors beyond the sociodemographic ones examined in this study.

Medical representatives in the Kurdistan region demonstrate a well-rounded image of pharmaceutical marketing in the region based on their responses across these strengths. It emphasizes the importance of interpersonal skills, expertise, and ethical conduct. Pharmaceutical

companies and professionals can use these insights to tailor their strategies and training programs to ensure that these strengths are harnessed effectively to promote healthcare engagement and products.

Cultural understanding, strong relationships with diverse stakeholders, and adapting to rapidly changing market dynamics make Asian medical representatives excel. They provide tailored marketing strategies based on their proficiency in local languages. On the other hand, European medical representative thrives on their deep scientific knowledge, expertise in navigating stringent regulatory frameworks, and evidence-based communication. In addition, they facilitate market access interactions and provide valuable educational resources. By providing accurate information, building trust, and fostering meaningful collaborations, medical representatives are critical to pharmaceutical marketing success in Asia and Europe (Murshid and Mohaidin, 2017).

The study highlights key weaknesses in medical representatives' marketing efforts in Kurdistan. Communication skills, product knowledge, and balancing sales with patient interests stand out as crucial areas for improvement. Addressing scientific training, ethical concerns, accessing healthcare professionals, and market competition are also vital for enhancing their effectiveness in this role.

In Kurdistan, ethical compliance strategies among medical representatives in marketing are tailored to the local context. The focus on staying updated and peer influence resonates with healthcare needs, while personal dedication and company supervision mirror regional values. This approach is geared towards promoting responsible marketing practices and fostering accountability throughout the region.

Ethical compliance measures for medical representatives in marketing in Europe frequently follow strict regulatory standards. Transparency, evidence-based information, and industry association norms of conduct are prioritized. Due to cultural traditions and changing perspectives, gender affects pharmaceutical marketing methods differently in different nations. Gender-sensitive marketing is important in some European locations but less so in others, requiring a local study.

The role of gender in influencing pharmaceutical marketing strategies within the Kurdistan region is a subject of discussion. There are varying perspectives on whether gender dynamics significantly shape these practices. This highlights the need for a deeper exploration of how gender considerations intersect with marketing approaches in the context of pharmaceuticals (Suriyaprakas and Stephan, 2022).

Based on cultural norms and regulatory settings, Asian medical professionals' marketing ethics can vary. Some Asian countries emphasize hierarchical systems and relationship-building in marketing, while others emphasize formal conformity with regulations. Traditional gender roles and societal

beliefs can affect Asian pharmaceutical marketing methods. Some Asian countries are embracing gender diversity in marketing faster than others. Thus, assessing gender's impact on pharmaceutical marketing in Asia requires understanding each region's dynamics (Rabinowitz et al., 2020).

In the Kurdistan region, medical representatives can enhance their marketing effectiveness by focusing on several key areas. Strengthening product knowledge builds credibility, while effective communication and relationship-building foster trust. Bolstering the scientific background aids in addressing technical queries, and prioritizing ethics ensures transparency. Continuous training maintains industry relevance, and acquiring market insights enables targeted strategies. Efficient time management optimizes productivity, and adapting to regional differences acknowledges diversity.

Furthermore, developing confidence in product presentations and refining soft communication skills are pivotal. These improvements collectively elevate the role of medical representatives, creating a more impactful presence in the healthcare marketing landscape of the Kurdistan region. The impact of marketing strategies on product enhancement in the Kurdistan Region is strikingly evident in the considerable influence wielded by campaigns targeting antibiotics. With a substantial frequency of mention, it's clear that marketing plays a pivotal role in positioning antibiotics as a solution for various health concerns, shaping decisions of both healthcare professionals and patients. Moreover, marketing strategies effectively shape consumer behavior in categories like chronic disease products, supplements, and cosmetics. These categories garner notable percentages, underscoring marketing's role in informing consumers about products catering to ongoing health needs, promoting wellness products, and influencing beauty trends. The interaction of marketing efforts, consumer preferences, and healthcare choices reflects the dynamic interplay that characterizes the region's healthcare and wellness sectors.

Cultural values and personal connections play a significant role in shaping Asian countries' marketing tactics. Trust in one's neighborhood and the reliability of word of mouth have traditionally played significant roles in molding consumer preferences. Rapid economic growth in nations like China and India has resulted in the emergence of new markets and an increase in competition. As a result, businesses now use a wider variety of marketing strategies, such as digital ones aimed at millennials. Asian customers are increasingly interested in convenience and individualization, making e-commerce and social media platforms crucial for reaching and engaging this demographic (Davey et al., 2023).

Countries in Europe Due to the region's cultural richness and stringent regulatory framework, European countries require sophisticated marketing strategies. Although some tactics of advertising

are similar to those used in the West, businesses usually need to modify their approaches to better appeal to local tastes. Especially in highly regulated industries like healthcare and food production, transparency and compliance with rules are essential. As Europeans become more health conscious, the demand for wellness items increases, and businesses are responding by emphasizing the positive effects their wares have on consumers' well-being. Understanding cultural differences and being able to overcome regulatory difficulties while responding to consumers' ever-changing requirements are essential for successful marketing in Europe (Hidayatullah et al.,2020).

#### **4. Conclusion**

This research concludes that medical representatives play a crucial part in the pharmaceutical marketing environment across the Kurdistan area, Asia, and Europe, and that this study sheds light on this complex landscape. The gender gap and its effect on marketing tactics highlights the need for sophisticated approaches that adapt to the dynamic nature of gender roles and expectations. Medical representatives' strengths in persuasive communication, product expertise, and ethical behaviour stand out as cornerstones of productive interactions with medical professionals.

However, the research also reveals obvious places where improvements might be made, such as the need to strengthen communication abilities, provide more thorough scientific training, and better match sales aims with patient interests. Because of the importance of cultural factors, marketing plans need to be adjusted to reflect local norms and beliefs. Furthermore, the report highlights the importance of ethical compliance, which is indicative of the sector's dedication to accountable marketing practises.

The research highlights the significance of flexibility and creativity in marketing tactics, as these factors are essential for keeping up with shifting customer preferences, new technologies, and stricter regulations. Companies and individuals working in the pharmaceutical industry can benefit greatly from the study's findings by using them to guide their strategies for product promotion, healthcare provider engagement, and consumer satisfaction.

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