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Analyzing the Influence of Personal Selling Practices (Malpractices) on Physicians' Decision-Making in the Pharmaceutical Sector of Pakistan: The Role of Personal Selling Practices (Malpractices)

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Abstract

*TP*Pharmaceutical marketing malpractices, especially in Pakistan, are unethical ways to get doctors to prescribe drugs. This study examines how morally questionable personal selling malpractices (PSM) such as misleading information, disparaging remarks about competitors, and incentives affect Pakistani pharmaceutical physician prescribing judgments. We gather Pharmaceutical marketing unethical behaviors come under six categories: Misconduct in organizations 2. Physicians, 3. MR & Colleagues, 4. Culture, 5. Work pressure and competitiveness, 6. Job rewards and threats. We believe these unethical influences would cause personal selling malpractices and harm prescribing decisions. Adopted questionnaires surveys were completed by 391 medical representatives (MRs) and physicians in Karachi's, with an 82% net response rate. The model was tested using PLS Path Modelling (CFA). The study found that personal selling malpractices affect physicians prescribing. Organization, Physicians, MR-Colleagues, Culture, work pressure, and competition had a positive effect on personal selling malpractices, while job-related, rewards, and threat structure had an insignificant and negative effect. In contrast, MR-Colleagues' related influence seems to lower the personal selling malpractices. Thus, job rewards and threat structure did not affect personal selling malpractices. The results also show that personal selling malpractices mediate between pharmaceutical industry practices, physician interactions, medical representative and colleague behavior; work pressure and competition, cultural influences, and physician decision influences. Identifying PSM elements and motivations can assist PI stakeholders reduce malpractices, develop professional awareness, and improve public image

Keywords: Personal selling malpractices, Pharmaceutical industry, Medical representatives, Physicians, Partial least square path model, Confirmatory factor analysis.

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1. INTRODUCTION

1.1 Background to the Study

Pharmaceutical companies develop, manufacture, and market a wide range of pharmaceuticals to treat chronic diseases and improve public health. External and domestic factors like high inflation, stringent monetary regulations, and import restrictions are pressuring Pakistan's economy. The pharmaceutical industry accounts for 1% of GDP and exports, saves over USD 2 billion annually through import substitution, and employs 90,000 directly and 150,000 indirectly man power. Pakistan's healthcare cost is low compared to the US and Switzerland, with over 60% of the population under 30 and lesser drug usage. Healthcare costs Pakistan Rs 920 billion, or 1.4% of GDP, in 2022. Predictions put the pharmaceutical sector at 1.57 trillion USD by 2025. The global pharmaceutical market is expected to be skewed toward China, North America, Europe, and Latin America, with various shares going to Asia-Pacific and Latin America. Quality medicine access requires global cooperation, which is difficult.

National enterprises supply 90% of drug needs and 4% of active components, despite common medication shortages due to imported bulk pharmaceuticals. Local generic pharmaceuticals supply 70% of Pakistan's pharmaceutical needs. Domestic companies have 15.3% annual sales increase compared to global organizations. Over 800 formulation units make up Pakistan's 748 billion rupee pharmaceutical sector. Analysts expect the market to reach Rs. 1 trillion by 2025 because to increased healthcare spending and indigenous production.

In Pakistan's pharmaceutical industry, the top ten companies control 47%, the top twenty-five 72%, and the top fifty 90%. The remaining 10% is home to over 750 SMEs that compete for a razor-thin profit margin while affecting quality, technology, and sustainability. Pharmaceuticals were Pakistan's 17th largest export sector in 2022 with a 62 international export rating. Pakistan's exports rose 12% to USD 328 million in FY2023. The Drug Regulatory Authority of Pakistan (DRAP) is the top regulator of Pakistan's pharmaceutical industry under the Drugs Act, 1976. DRAP regulates pharmaceutical licensing, registration, manufacturing, quality, marketing, pricing, import, export, and research.

Pakistan's pharmaceutical sector is plagued by a skewed sector composition favoring large companies, excessive government price controls, and weak regulation. MNCs have left the country, reducing efficiency, skills, and technology transfer. Due to the current pricing regime and inadequate intellectual property protections, multinational corporations have more trouble competing in local markets and getting regulatory approval. Healthcare access disparity, long registration processes, and unclear IP rights slow industry growth.

A study conducted by the Institute for Health and Socio-economic Policy in California in 2015 revealed that a significant number of the leading pharmaceutical companies allocated double the amount of funds for sales and marketing compared to research and development. Zipkin and Steinman's (2005) research highlights

the significant impact that promotional campaigns have on prescription choices. Further research is needed to unravel the marketing misconduct that has already been examined. These studies will have far-reaching effects on healthcare expenses, medication quality, and patient security (Sillup and Porth, 2008). Research has demonstrated that marketing has a significant impact on prescription choices, as highlighted by Zipkin and Steinman. Despite the abundance of evidence supporting this, pharmaceutical companies employ well-executed strategies to maximize their market share. They utilize a dedicated team of salespeople, as noted by Umar (2019), to successfully introduce new products and meet sales targets, as emphasized by Faheem et al. (2020).

Promotional activities in the pharmaceutical industry, such as personal selling and sales promotion incentives, are essential for spreading information about available treatments to physicians in developing nations (Norris et al., 2005; Manchanda and Honka, 2005).

1.2 Problem Statement

Pharmaceuticals are important to the country's health management system. Methodical approaches underpin healthcare management systems. For optimal patient care, patients must have access to the most effective, cost-effective drug, dosage, and treatment plan. The government, pharmaceutical corporations, doctors, and pharmacists all contribute to medicine delivery. More people are concerned about how the pharmaceutical business interacts with health care professionals. Unethical promotional strategies affect doctors' ethical practices, prescription habits, and dispensing behavior. Therefore, doctors and other stakeholders may be affected in their decisions. Is Pakistan known for unethical drug promotion? When did Pakistan begin unethical drug promotion? Why does this pattern repeat? Who is accountable?

Pharmaceutical businesses face many problems in personal marketing, especially in poor nations where healthcare rights are not enforced and modern societal trends are not aligned (Albers Mohrman et al., 2012; Greve, 2008). Pharmaceutical marketers have been accused of creating unsubstantiated, deceptive claims. Low-quality, insufficient, and unsubstantiated assertions cast doubt on the industry's integrity (Othman N., Vitry AI., Roughead EE., Ismail SB., 2010). A surprising number of doctors liked the practices. Instead, they praised the methods and benefits of sponsored seminars and freebies.

Bush (2017) suggests expanding the study to include sales and corporate scenarios. This expansion draws from Ferrell, Johnston, and Ferrell (2007), McClaren, Adam, and Vocino (2010), and Ameer and Halinen (2018) to illuminate Pakistan's controversial personal marketing methods. A comprehensive study on ethical behaviour found individual, organisational, occupational, stakeholder, cultural, and environmental aspects (Cadogan et al., 2009).

Pharmaceutical businesses' salesmen, who are under pressure to meet goals, may act unethically due to organizational and institutional pressure. Selling can violate

ethics and create a negative work atmosphere (Qureshi and Evans, 2015). Skandrani and Sghaier (2016) found that four stakeholder groups—physicians, supervisors, peers, and pharmacists—influence PSM. The job's infrequent repeat business and fiercely competitive business environment, as well as organizational factors like training and management control systems, may contribute to PSM.

1.3 Gap Analysis

Personality qualities, demography, and job duration have been demonstrated to affect PSM. Agreeableness, emotional stability, education, and age may affect PSM. Salary- or incentive-based remuneration might inspire salespeople to operate in their own best interests. The threat of termination can also affect their conduct (Barnett and Valentine, 2004; Cadogan and Lee, 2009). Skandrani and Sghaier (2016) found that culture strongly influences medical professionals. Hunt and Vitell (1986) emphasize the role of culture and law in regulating these activities. Pharmaceutical salespeople's PSM is affected by commission-based pay, quota pressure, pricing, competitive forces, incentive pay, and industry nature. Pharmaceutical salesmen and other promotional methods are influential in developed and developing nations (Murshid and Mohaidin, 2017). Williams-Jones and Ozdemir (2008) suggest that the pharmaceutical industry handle its ethical concerns by protecting intellectual property and advertising honestly. Genetic testing to determine treatment response and disease predisposition has raised these concerns. Sillup and Porth (2008) raised ethical issues around data transparency, drug price, and import/re-importation.

Civaner (2012) revealed that pharmaceutical corporations use many sales methods to boost sales, some of which may be unethical. Handa et al. (2014) explore gift, sponsorship, and sample distribution procedures. Contract medical research moves ethical duty from principal to agent businesses, raising ethical concerns (Adobor, 2012). Gifts can affect doctors' prescribing habits (Moubarak et al. 2010). Incentives and financial rewards can impact doctors' prescribing behavior (Chimonas et al. 2010). Katz et al. found in 2010 that even a tiny gift can affect a doctor's prescribing. Ching and Ishihara (2012) found that pharmaceutical marketing details strongly influences brand collaboration. Peter McGraw et al. (2011) found that healthcare firms' ethical arguments are stronger when customers don't dispute the company's motives and the product is needed.

Promotion and advertising have increased adverse drug reactions (ADRs) for specific disorders, according to David et al. (2010). Pharmaceutical companies use several methods to influence consumer behavior, especially when initial product opinions are weak (Alssageer and Kowalski, 2013). These approaches include written promotions, gifts, and incentives. Several US marketing methods have been questioned, including fraud, off-label advertising, and pricing disparities (Schramm et al., 2014). Pricing problems accounted for 33%, off-label promotion 52%, and fraudulent marketing 48%. Alkhateeb (2011) stressed the importance of pharmaceutical sales representative (PSR) training and certification in protecting doctors' prescription habits. Pharmaceutical salesmen affect doctors' prescription practices due to their cash benefits and ethical norms. A 2011 study cites Abdul Waheed et al.

According to Ahen (2014), ethical actions by managers and external circumstances determine the success of organizational reform in the pharmaceutical sector. Several obstacles hinder manager knowledge sharing. The organisation faces information sharing costs, technology limitations, knowledge withholding, lack of socialisation, trust, a non-educational mindset, organisational politics, poor leadership, and time constraints (Qureshi and Evans, 2015). According to Banerjee (2011), Indian pharmaceutical salesmen are often told about the company's profit-maximizing objective during presentations. This information is forwarded to field medical representatives. Drug development for life-threatening diseases is an admirable undertaking for the pharmaceutical industry. Concerns have been made concerning the industries unethical and illegal actions (Huebner, 2014). Pharmaceutical businesses must follow foreign anti-corruption laws to avoid bribery. Maintaining ethics requires anti-bribery safeguards (Witten et al. 2009). The ethics of medical representatives can be affected by many variables. These include a focus on personal gain, a commission structure that may encourage unethical behavior, lax behavior management, and disdain for marketing standards (Hsu et al., 2009). Promoting off-label drug use raises ethical issues, yet it's important to set boundaries for factual and non-misleading information. This will help us comprehend drugs (Sarkees and Fitzgerald, 2016). Pharmaceutical companies and physicians thrive when they work together (Matikainen et al., 2017). Pharmaceutical companies and doctors benefit each other (Makowska, 2017). In the pharmaceutical industry, unethical tactics include faking daily call records, abusing samples, giving incentives, criticizing rivals and their products, and spreading incomplete or misleading information. Skandrani and Sghaier (2016) list organizational, human, job, stakeholder, situational, and cultural factors that influence these characteristics. Promotion tools and medical reps improved physician prescribing in Pakistan. Ahmed (2014). Shamim-ul-haq (2014) found that promotional tools strongly influence physician prescriptions. According to Jamshed (2012), over half of participants said medical representatives affect their prescribing decisions. General practitioners found that certain gifts most influenced their prescribing. They considered sponsorship and personal touch promotional techniques neutral and unimportant. Consultants found that scientific promotional methods changed prescribing practices more than sponsorships, according to Siddiqui et al. (2011).

A detailed examination on Pakistani medical representatives' ethical conduct found a disregard for basic ethics. In analyzing MRs' major unethical issues, the research did not include several other critical topics. These difficulties include false and incomplete information, disrespectful remarks about competitors and their products, and incentive restrictions. Understanding how much these unethical issues affect physicians' prescription choices and what drives them, especially in Pakistan, is crucial. This issue received little attention due to three sub-dimensions. Misleading information, rival disparagement, and incentives are examples. Interestingly, no research have examined the causes of these unethical actions. This study is crucial to shaping the pharmaceutical company's image by showing their unethical activities and their impact.

1.4 Research Objectives

This study covers a wide range of topics, including ethical issues, personal selling, and factors that influence ethical behavior in the medical field, such as the behavior of medical representatives, managers, and organizational interests that may influence physicians' prescribing practices.

This research aims to identify the morally dubious elements of personal selling malpractices (PSM), such as misleading information, disparaging remarks about competitors, and incentives, and analyze how these elements affect physician prescribing decisions in the Pakistani pharmaceutical sector. The unethical practices followed in the pharma industry are divided into six groups, namely malpractices related to 1. Organization, 2. Physician, 3. MR & Colleagues, 4. Culture, 5. Work pressure and competitions, and 6. Job-related, rewards and threat structure. We contend that these unethical influences would cause personal selling malpractices, and would ultimately negatively influence Physicians' Decisions.

1.5 Research Question

Based on the above discussion, the following research questions arise:

What is personal selling malpractices (PSM)? And what are its key elements?

How do these PSM elements impact on Physicians' decision influences?

What are the determinants of PSM in pharmaceutical marketing that are underexplored?

1.6 Significance

This paper will assist researchers and stakeholders in guiding their efforts and assessing the advancements in knowledge development within the pharmaceutical industry. This will provide valuable insights for future researchers, enabling them to focus on important ethical considerations in their research.

The presence of corruption within the pharmaceutical system can have severe consequences on a nation's efforts to enhance the well-being of its people. Furthermore, the pharmaceutical system's allotted funds for the treatment of health conditions risk being frittered away if lawmakers do not tackle the issue of corruption. Subsequently, this will exacerbate the already-present disparity in socioeconomic access to health and pharmaceutical goods (Cohen et al., 2007). Many experts and academics are also worried about the dubious business practices of pharmaceutical corporations. By shedding light on the ethical and immoral actions taken by pharmaceutical companies, this study hopes to aid practitioners.

2. LITERATURE REVIEW

Physician relationships with the pharmaceutical industry are gaining attention, affecting prescription and raising ethical concerns. Marketing techniques' effects on doctors' prescribing decisions can affect health care systems and patients' well-being. Doctors may not realize this impact (Zipkin and Steinman, 2005).

Pharmaceutical marketing research has focused on ethical issues and elements that lead to pharmaceutical malpractices. The elements include organisational, environmental, individual, stakeholder, cultural, situational, and work aspects (Skandrani & Sghaier, 2016). Since the 1980s, corporate ethics has attracted interest in business sciences. Hunt and Vitell's seminal article from that decade exposed unethical marketing. Despite prohibitions, unethical activities persist, highlighting the need for government intervention (Ferrell and Gresham, 1985; Vitell and Muncy, 1992; Kulshreshtha, 2005; Treviño and Nelson, 2016).

Marketing researchers have focused on business personal selling malpractices. They have studied salespeople's ethical behaviour, as noted by Robertson and Anderson (1989), Ermann and Lundman (2002), and Carrigan et al. (2005). Most study has focused on wealthier countries, whereas developing nations' medical and pharmaceutical industries have received less attention. These businesses are plagued by fraud and incentives, but researchers have not properly researched them (Edmunds, 2004; Katz et al., 2010). Al-Khatib et al. (2002) and Saeed (2014) reveal pharmaceutical corporations' unethical tactics, where physicians are motivated by personal, financial, and professional factors.

Medical representatives may engage in dishonesty, exaggerating product benefits, unfairly criticising competitors, bribery, and falsifying information when faced with ethical issues. Marchetti found that many salespeople lie over the phone in 1997. Lying about products or services, making unattainable claims, and selling superfluous items are examples. Shah SA (2013) and Ahmed RR (2014) define PSM as gifting, personal things, and sponsored trips. Physicians receive a lot of money from pharmaceutical corporations, which may lead to a sense of responsibility and prejudice when prescribing drugs. Implementing penalties for these actions can foster ethics. Since salespeople often make unrealistic promises or promote unnecessary things, they often face ethical criticism (Abratt and Penman, 2002).

False product claims, withholding side effects, and misinformation regarding diseases are unethical healthcare practices, according to Hollon MF (2005). These activities harm patient care and public trust, hurting healthcare professionals. In the insurance industry, Cooper and Frank (2002) noted that criticising competitors and their products is unethical. Skandrani & Sghaier (2016) note that similar unethical methods are also common in the pharmaceutical sector, notably PSM. Verschoor (2006) investigates pharmaceutical corporations' promotional practices, such as lavish holidays and cash payments, to persuade doctors to prescribe a certain brand of drugs. The industry body PhRMA has voluntary rules for salesmen-doctor interactions. Pharmaceutical businesses use a deliberate approach to marketing, with salespeople connecting with prescribers through gifts and information. To make their products accessible, they offer experimental trials and medical camps (Masood I, Ibrahim M, Hassali M, Ahmed M. 2009).

Pharmaceutical firms have distinct operational issues due to their strong relationships with stakeholders and regulatory bodies, unlike FMCG companies. To inspire doctors and nurses to change their prescriptions and prescribing patterns, more time and money are needed (Daniella A. Zipkin, MD, Michael A. Steinman, MD 2005).

Physicians embrace freebies like sponsored meals, samples, and trips, according to several studies. However, few believed presents affected behaviour. Lindenmeier et al. (2012) and Wei (2015) have illuminated unethical pharmaceutical business tactics, raising customer worries about suggested brands. There is continuous debate in the literature about PSM among pharmaceutical sales professionals. PSM factors are disputed (Bush et al. 2017; Ferrell, Johnston, and Ferrell 2007; McClaren 2015; McClaren, Adam, and Vocino 2010; Williams and Plouffe 2007; Ameer and Halinen 2018). The study suggests examining unethical behavior's causes and processes in more social contexts. According to the social exchange perspective, employees may act unethically to maintain good ties with employers and stakeholders (Umphress and Bingham, 2011).

Individuals, firms, work, stakeholders, culture, and the scenario affect PSM (Cadogan et al., 2009). Barnett and Valentine (2004) found conflicting sales ethics results in the US and Middle East. Individual variables may positively affect unethical behaviour, while some research have found no significant influence (Kum-Lung and Teck-Chai, 2010). Barnett and Valentine (2014) found that competition intensity can affect salespeople's ethics. This discovery emphasises the relevance of ethical training, ethical environments, and social norms in shaping ethical behaviour. Trevino (1986) and Ferrell (2007) stressed the complexity of PSM and conduct, emphasising the need of understanding workplace morality.

Schoderbek and Deshpande (1996) stress stakeholders' impact on pharmaceutical PSM. Power dynamics and authority influence medical reps, physicians, chemists, and peers. PSM may be affected by this. Sales ethics are stressed. According to Rehan et al. (2021), medical representatives may participate in unethical actions to benefit their colleagues, work groups, or the organisation. Johnson & Umphress found that personal incentives or a desire to benefit people, teams, or the organisation might motivate unethical activity. Cadogan (2009), Valentine, and Barnett (2004) highlight that situational circumstances affect PSM. Salary and reward plans might encourage unethical activity. Promotion, reward, and termination risk affect Medical Representatives' outcomes. Fear of termination can motivate ethical behaviour, while rewards and promotions can motivate unethical behaviour (Skandrani & Sghaier, 2016). Bartels (1967) stressed the cultural environment's influence on PSM and ethical decision-making. Skandrani and Sghaier (2016) stress how laws and culture shape pharmaceutical PSM. Bommer et al. (1987) stressed the need for strong taxation and self-regulation to ensure pharmaceutical sales ethics.

Pharmaceutical company medical representatives face ethical difficulties due to pay, industry competition, performance pressure, and product price. They're called job-related factors (Skandrani & Sghaier, 2016).

3. CONCEPTUAL FRAMEWORK

This section provides a comprehensive explanation of the theoretical and practical foundations of the proposed conceptual model, aiming to address the research gaps and address the hypotheses.

3.1 Personal Selling Malpractices & Physicians Decisions Influences

Despite government efforts to prevent fraud and corruption, the pharmaceutical business continues to experience malpractices, resulting in poor sales (Fontrodona and de los Santos, 2004; Nagarjuna, 2018). Dishonesty, overhyping benefits, and bribery in personal selling demonstrate the significance of ethics and integrity. Skandrani, Sghaier (2016), and Ziegler (1995) have illuminated the ethical issues regarding representatives' off-label medical product advertising. They stress the necessity of correct information. In personal selling, Frank and Cooper (2002) found it immoral to criticize competitors and their products. Consumers International researcher Roy (2007) raised the ethical issue of medical salesmen utilizing gifts and incentives to persuade doctors to prescribe their products. The survey found that 32% of these representatives' information was inaccurate or unjustified (Roy et al., 2007; Masood, 2009).

Lindenmeier et al. (2012) and Wei (2015) illuminate the complex pharmaceutical-physician connection. It stresses the significance of going the extra mile and spending more to influence healthcare workers, even when gifts are accepted. Possible malpractices and brand endorsement intentions have been questioned (Daniella A. Zipkin, MD, Michael A. Steinman, MD, 2005). Prior study shows that pharmaceutical firms use unethical strategies to alter physicians' prescribing behavior, affecting prescription trends. Therefore the hypothesis is developed as follows:

H1: Personal selling malpractices positively relates to the physicians' decision influences in pharmaceutical sector of Pakistan.

Determinants of Personal Selling Malpractices

3.2.1 Organisation Related Malpractices

Lybecker (2008) says the organisation supply chain affects employee behavior at work. Stakeholder interactions are crucial to your pharmaceutical company's success (Ben Naoui and Zaiem, 2010). Finding solutions to problems, building solid relationships, and speaking clearly and efficiently achieve this. Abdul Waheed et al. (2011) found that tangible rewards and medical representatives from pharmaceutical businesses with strong values influence physicians' prescribing behavior. According to Ching and Ishihara (2012), description is key to prescribing behavior. Lindenmeier et al. (2012) explored how customers' company image assessments affect their purchases. Significant findings were found in the survey of German medical representatives.

According to Witten et al. (2009), a company's ethical or immoral behavior is strongly influenced by its code of conduct. Erwin (2011) proposes that greater ethical standards can improve public opinion by encouraging morality. These guidelines greatly affect the company's culture and staff productivity. Consumers may also change their minds when comparing a business to its competitors. Lee and Kohler (2010) believe that this comparison could improve the firm's transparency and

reputation. Longest (2017) demonstrates that ethical healthcare leaders have better results. Capacity, motivation, training, control, and potential were also important. Sirgy et al. (2011) found that pharmaceutical corporations don't emphasize cost-effective, high-quality products.

Organizational climate, stakeholders' effects, and personal characteristics influence medical representatives' malpractices, especially those from generic or proprietary medication companies, according to Skandrani and Sghaier (2016). Corporate ethics training helps pharmaceutical company medical personnel avoid unethical behavior, according to Delaney and Sockell (1992). According to studies (Robertson and Anderson, 1989; Román and Munuera, 2005; Stevens, 2008), control systems and deontological norms improve salespeople's ethics. Representatives don't always follow these codes. In the light of above discussion following hypothesis is developed:

H2: Organization related malpractices positively relates to the personal selling malpractices in pharmaceutical sector of Pakistan.

3.2.2 Physicians Related Malpractices

Leisinger (2012) stresses the importance of stakeholder collective responsibility for ethics. Wei and Delbaere (2015) discovered that doctors connect pharmaceutical companies to customers, influencing sales. Furthermore, customers often distrust doctors they believe are influenced by pharmaceutical businesses. Mahmoud (2016) examined Ghanaian middle managers' views on consumers' negative views of doctors. Janakiraman et al. (2008) observed that promotion type affects physician behavior. Visually primed advertising disclosures can improve consumer perceptions of the company, according to Wang (2011). Knowledge, relative advantage, and product compatibility can influence their decision-making (Hitz and Katsanis, 2014).

Skandrani and Sghaier (2016), Ferrell and Gresham (1985), and others have stressed the importance of physicians, peers, supervisors, and pharmacists in ensuring pharmaceutical industry medical representatives act ethically. Physicians often urge their managers for gifts and bribes, whereas pharmacists may try. These considerations strongly influence medical representatives' ethics. As per above discussion following hypothesis is developed:

H3: Physicians related malpractices positively relates to the personal selling malpractices in pharmaceutical sector of Pakistan.

3.2.3 MRs & Colleague related Malpractices

Colleagues in MR's industry, regardless of whether they are involved in the same pharmaceutical product lines or other areas, can also have an impact on unethical conduct. Skandrani and Sghaier (2016) argue that MRs and physicians believe that some MRs feel pressured to engage in unethical behavior in order to fit in with their colleagues and meet their business objectives.

Peers in MR's industry, regardless of whether they are employed by the same pharmaceutical companies or by rival ones, can also have an impact on unethical conduct. Skandrani & Sghaier (2016) argue that some MRs feel pressured to participate in unethical actions in order to fit in with their peers and meet their professional objectives. Furthermore, it has been noted that supervisors have a greater influence on the behavior of MRs in comparison to their colleagues (Skandrani & Sghaier 2016). Various studies have consistently shown that supervisors hold significant influence over ethical behavior, a notion supported by the research of Ferrell and Gresham (1985) as well as Haron et al. (2011). Thus, the hypothesis is formulated in the following manner:

H4: MRs and colleagues related malpractices positively relates to the personal selling malpractices in pharmaceutical sector of Pakistan.

3.2.4 Cultural Malpractices

Bartels (1967) was one of the first to note how cultural influences including conventions, customs, laws, and national identity shape morality. According to Hunt and Vitell's 1986 ethics theory, culture strongly influences morality. Legal, religious, and political structures are engaged. Several studies show that cultural influences affect MR ethics. The only cultural influences Skandrani & Sghaier (2016) discovered were legal laws and cultural values. Few academics realized how much regulation affects medical representatives' ethics. According to Skandrani & Sghaier (2016), tight laws control the events. So they said, "The Ministry of Health has banned these practices." To reduce these excesses, strict taxes are needed. According to Westing (1967), law strongly influences ethical behavior. People consider their behaviors ethical when they follow the law. Bommer et al.'s 1987 study indicated that legislative legislation strongly influences salespeople's ethical decisions.

Internationally, Francer et al. (2014) claim that less developed countries have weak self-regulation. Matikainen et al. (2017) discovered an interesting pharmaceutical-medical professional partnership in a new study. Cultural values influence ethics, it seems. "It's just your average, run-of-the-mill thing." Ethics and morality are declining in our society. All MRs are citizens and aware of corruption, according to Skandrani & Sghaier (2016). Therefore, the hypothesis is formulated as follows:
H5: Culture related malpractices positively relates to the personal selling malpractices in pharmaceutical sector of Pakistan.

3.2.5 Work Pressure & Competition

Both MRs and physicians see company competition and performance pressure as occupational traits, according to Skandrani and Sghaier (2016). These variables may cause MR malpractices. Rich et al. (2010) said work can motivate salesmen, giving them energy and excitement. Pharmaceutical salespeople are under pressure, making ethical practice difficult. Sales teams can be motivated by performance targets and rewards. According to Hair et al. (2009), corporations encourage and guide salespeople with mandates and incentives.

Quotas remind salespeople of their tasks. Thus, salespeople's pressure to meet sales targets can have a psychological weight because it requires a certain degree of performance. Salespeople may ignore ethical issues in their pursuit of corporate and personal goals because they regard the sales force "sub-culture" as a standard method of conducting business. Managers are under pressure to meet sales targets, which may lead to unethical actions. Additionally, pharmaceutical companies set lofty, unattainable goals. Marketing professionals may use questionable methods to reach their goals (Skandrani & Sghaier, 2016). Business competitiveness negatively impacts marketer ethics, according to a 2016 Skandrani and Sghaier study. According to Baumhart (1968), market competition increases immoral behavior. Salespeople's ethics are molded by their industry. Hunt and Vitell (1986), Hair et al. (2009), Ferrell and Gresham (1985), and Ferrell (2007) have studied this topic. Salespeople usually follow industry standards. Industry conventions guide salespeople. The level of company competition can affect salespeople's ethics (Wotruba, 1990). Competition may boost ethics in the workplace. In today's competitive industry, salespeople must build trust and long-term connections with clients (Hair et al., 2009). So, the hypothesis is:

H6: Work pressure and competition related malpractices positively relates to the personal selling malpractices in pharmaceutical sector of Pakistan.

3.2.6 Mal practices in job-related rewards or threats

Previous research have shown that job-related characteristics can affect malpractices (Barnett and Valentine, 2004; Cadogan and Lee, 2009). Physicians and MRs agree that results are vital (Skandrani & Sghaier, 2016). Salespeople in the worldwide market may meet differing ethical norms for client contacts. Schweitzer et al. (2004) propose that targets or quotas may pressure people to act unethically. The reward and promotion system encourages employees to meet personal and organizational goals, such as sales goals (Chonko et al., 1996). According to Victor and Cullen (1988), commissioned sales companies generally foster ethical cultures that prioritize practical results. These cultures say "employees are encouraged to take any necessary action to advance the company's interests, regardless of the potential consequences" and "individuals within this organization are primarily driven by their own self-interest." Sometimes a salesperson sees value in unethical activity. This could involve actively lying to the consumer to close the business and receive the commission (Kurland, 1999). Commission-based income may encourage salespeople to act unethically to maximize sales. According to Honeycutt et al. (2001), salary-based methods may not motivate as well. Termination's potential implications emphasise its importance in MR ethics. Results were inconclusive. Barnett and Valentine (2004) found that sellers are less likely to engage in unethical action when the penalties are more severe or dangerous. Punishments can reduce ethical motivation, our data show. "Failure to meet the goals established by their superiors could result in termination for MR." Skandrani and Sghaier (2016) claim that people may feel forced to act unethically. Thus, the hypothesis is formulated as follows:

H7: Job related malpractices positively relates to the personal selling malpractices in pharmaceutical sector of Pakistan.

Mediating role of personal selling malpractices

Pharmaceutical corporations use several promotional methods to influence doctors' prescriptions. Drug samples, gifts, and personal and academic sponsorships can be used (Abdul Waheed et al., 2011; Arora and Taneja, 2006). Industry experts agree that physician endorsements are crucial to marketing efforts (Kumar and Subhasini, 2020).

Although pricing is not considered, Pinto et al. (2010) found that physicians often choose a product based on the brand recommended by their chosen medical reps. According to Perera and Wanninayake (2019), unethical tactics ensure that marketing activities have a significant impact on prescribing behaviour.

Mizik and Jacobson (2004) examined how marketing methods affect prescription, focusing on unethical personal selling. Marketing techniques may be heavily influenced by physicians' behaviour. According to extensive study, an MR's unethical medication marketing practices can influence healthcare professionals' behaviour. These factors may impact doctors' medicine prescribing decisions, leading to either continued usage of a drug or alternate marketing methods.

Investigating this method can help us understand the incidence of unethical sales tactics in previous studies, influencing future research. Understanding this mechanism can help drug producers and policymakers identify key areas to focus on when creating health regulations and malpractice prevention initiatives.

This study adds to knowledge by investigating how medical representatives' unethical behaviour may affect prescription. The following hypotheses are worth investigating:

H8: Personal selling malpractices mediates the relationship between organization related malpractices and the physicians' decision influences in pharmaceutical sector of Pakistan.

H9: Personal selling malpractices mediates the relationship between physicians' related malpractices and the physicians' decision influences in pharmaceutical sector of Pakistan.

H10: Personal selling malpractices mediates the relationship between MRs & colleague related malpractices and the physicians' decision influences in pharmaceutical sector of Pakistan.

H11: Personal selling malpractices mediates the relationship between cultural malpractices and the physicians' decision influences in pharmaceutical sector of Pakistan.

H12: Personal selling malpractices mediates the relationship between work pressure and competition and the physicians' decision influences in pharmaceutical sector of Pakistan.

H13: Personal selling malpractices mediates the relationship between MRs job-related malpractices and the physicians' decision influences in pharmaceutical sector of Pakistan.

Medical representatives employ a crucial strategy of personal selling malpractices to boost prescriptions by influencing physicians, playing a key implementation role in various settings. The research model is depicted in Figure 1.

4. METHODOLOGY

The research design, based on the research paradigm, involves quantitative research to explore the methodology and data collection processes, ensuring a comprehensive and ethically sound research approach. The research community, including Von Hellens, Beekhuyzen & Kerr (2006), establishes a research paradigm, guiding researchers in selecting appropriate methodologies for their studies, thereby enhancing professionalism and fair practices in pharmaceutical personal selling, the study explores the detail dimensions of selling malpractices, identifying major determinants and highlighting policymakers' strategies to enhance professionalism and fair practices in pharmaceutical personal selling.

Markham (2012) research design integrates research inquiries and objectives, ensuring efficient and logical research processes. This study employs a quantitative methodology to evaluate personal selling malpractices, physicians' decision influences, and healthcare practices in Pakistan. Trochim (2021) and Tierney (2022) suggest the optimal approach for a study is to use a quantitative technique, focusing on the target population, to generalize findings and assess the impact of malpractices on physicians' decisions. The methodology of current studies, establishing a conceptual model, research hypotheses, and questionnaire, adjusting elements for alignment with study aims and ethical considerations.

Prior to the final pilot study, medical representatives and physicians in Pakistan provided preliminary quantitative data for the purpose of evaluating research constructs, adjusted indicators, and survey tools. In order to test hypotheses and answer research questions, the study used a number of data analytic methods, including structural equation modeling, descriptive statistics, and analysis of measurement models.

The survey formulation and development process involves careful consideration of the specific group of people being studied and the sample size to ensure validity and reliability. Leavy (2017), Allen & Seaman (2007) conducted a quantitative study using a survey to assess the interconnections between research themes, similarly we focusing on Personal Selling Malpractices. The Factors Influencing Physician Decisions and the Root Causes of Malpractices. A five-point Likert scale was used to evaluate the overall efficiency of pharmaceutical marketing in the questionnaire. A score of 1 meant strongly disagree and a score of 5 meant strongly approve. There are four parts of the survey that was used for this research:

Section 1: Particularly concern the Demographic profile of our respondent.

Section 2: Personal Selling Malpractices, consists of key elements providing misleading and incomplete information, making disparaging remarks about competitors and their products, and giving incentives.

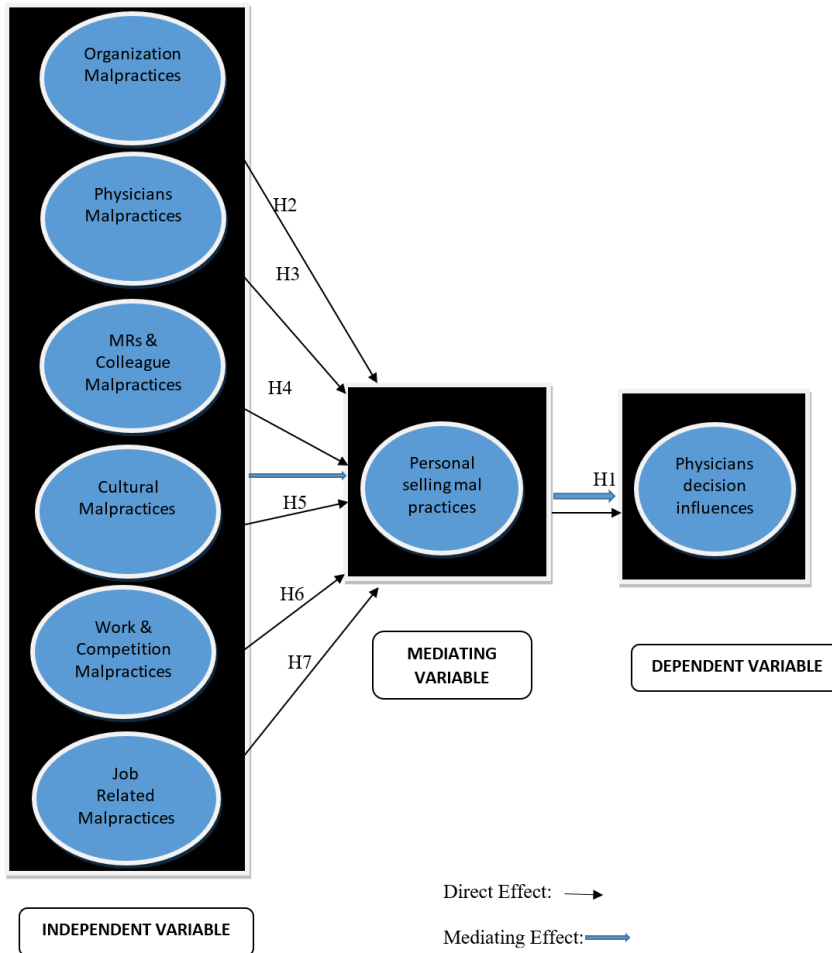
Section 3: Physicians Decision Influences, contains questions that assess the extent to which physicians prescribing decisions influenced by these personal selling malpractices.

Section 4: Determinants of malpractices consists of six factors, (Determinants of malpractices consists of six factors) including organization related malpractices, physicians-related malpractices, cultural malpractices, work pressure and competition related malpractices, MRs colleague related malpractices and malpractices in job-related (reward or threats), which are used to assess healthcare practices in Pakistan.

Prior research has emphasized the importance of pilot research and preliminary testing of survey questionnaires to identify flaws, assess construct quality, and identify potential issues. The study examines medical representatives from national and multinational pharmaceutical firms, as well as physicians from public and private hospitals in Pakistan.

In a quantitative study, determining the sample size is a crucial stage, as it directly impacts data accuracy. Hair (2014) and Qureshi (2021) have identified factors influencing outcomes, with the most recommended sample size being 300. MacCallum (1999) and Conroy (2021) participation criteria was used for data collection, online surveys were met, with 391 approved replies and 82% response rate. Google form, an online survey tool to gather pertinent data for a survey, utilizing a structured format with closed-ended questions for comprehensive responses. Utilized a concise introduction in the survey, clarifying technical terms and ensuring a clear understanding of the study's objectives (Sekaran & Bougie, 2013).

Sekaran & Bougie (2013) conceptual model approaches were utilize to data analysis through software SPSS and Smart PLS, involves three distinct phases for data analysis, ensuring data effectiveness, verifying dependability, and evaluating hypotheses.



A descriptive data analysis was conducted using the SPSS program, version 26, to ensure that the data was suitable for further analysis approaches. The measurement model proposed by Hulland (1999) was tested with the help of confirmatory factor analysis, a method that has been proven effective in testing pre-determined factor structures in real data (Hair, Joseph F., Black, Jr., William C. Babin, Barry J. & Anderson 2014). According to Hessener, Ringle, and Sarstedt (2015), the Heterotrait Monotrait Ratio (HTMT) is a useful tool for explaining discriminants validity in this study.

Tenenhaus (2005) and Hair (2014) have contributed to the field of structural modeling, a multivariate analytic technique used to examine the interconnections between elements of a model. Qureshi et al. (2021) further contributed to the field by highlighting its role in elucidating the variability of dependent constructs. The study utilized Partial Least Squares Structural Equation Modeling (PLS-SEM) for its analysis.

4.1 Sampling

This study uses quantitative research methodologies and questionnaires to gather data from physicians and pharmaceutical company representatives in Karachi, Pakistan, over six months. Sample size of 391 of total number of selling and marketing employees and physicians is surveyed from different districts of Karachi. The primary data collection in Karachi, a highly urbanized metropolitan city in Pakistan, is conducted using stratified random sampling.

4.2 Measures

The Table 1: Presents measures and items aimed at assessing the impact of malpractices on physicians' prescription behavior, examining the determinants and scales used in the study.

Table 1: Measure Utilized

Codes	Variables	Items	Source
PDI	Physicians Decision Influences	4	Zipkin & Steinman 2005
PSM	Personal Selling Malpractices	17	Doney& Cannon, 1997; Ramsey & Sohi, 1997; Lagace, Ingram, & Broom,1999; Zipkin & Steinman, 2005
ORM	Organization Related Malpractices	7	Skandrani & Sghaier, 2016; Suriyaparkash & Stephan, 2022
PRM	Physicians Related Malpractices	4	
CRM	Cultural Related Malpractices	3	
WCM	Work Pressure & Competition	6	
MCM	MRs & Colleagues Related Malpractices	5	
JRM	Job-Related Malpractices	3	

5. RESULTS

5.1 Demographic Profile

At first, preliminary tests were carried out using the SPSS software. The demographic analysis has been conducted to collected data on the respondents' profile, gender, age, education, experience, position (MRs), category (MRs), and category (physicians). The results are presented in Table 2.

Table 2: Demographic Profile of Respondent

Items	Classification	Sample Amount	Percentage
Profession	Medical Reps	276	70.6
	Physicians	115	29.4
Gender	Male	229	58.6
	Female	162	41.4
Age	Below 30 yr	101	25.8
	31 - 40	199	50.9
	41 - 50	65	16.6
	Above 50 yr	26	6.7
Education	Specialist	21	5.4
	General Physicians	94	24.1
	Graduate	117	29.9
	masters	140	35.8
	Pharm D	19	4.9
Experience	Less than 5 years	225	57.5
	5 - 10 years	54	13.8
	11 - 15 years	71	18.2
	16 - 20 years	30	7.7
	More than 20 years	11	2.9
Position (MRS)	ASM	46	16.7
	MRs	137	49.6
	RSM	77	27.9
	TM	16	5.8
Category (MRS)	Local	187	67.8
	MNCs	89	32.2
Category (PHY)	Both	21	18.3
	Private Hos/Cli	82	71.3
	Public Hos/Cli	12	10.4

Participants in the study table 2, showed a gender distribution, with a majority of them being medical representatives, with a gender distribution of 41.4% females and 58.6% males. The majority of participants (50.9%) are aged 31-40, with 25.8% below 30, 16.6% between 41-50, and 6.7% above 50. Based on their educational qualifications, the majority of individuals in pharmaceutical medical representatives a master's degree (35.8%, n=140). This is because the profession heavily relies on a high level of academic background and expertise in pharmaceutical selling. Survey participants revealed that junior positions are more receptive than senior positions, with a higher prevalence of individuals with less than 5 years of experience. The pharmaceutical sales management field is categorized into various roles,

with medical representatives (MRs) being the dominant group. Managers play a crucial role in sales, with 67.8% representing local firms and 32.2% affiliated with multinational corporations. The success of sales relies heavily on the performance of bottom-level staff. Physician participants, 18.3% (n=21) work in both private and public hospitals, 71.3% (n=82) work exclusively in private hospitals, and 10.4% (n=12) work exclusively in public hospitals, as indicated by the collected responses.

5.2 Descriptive Statistic

Table 3, presents statistical data, including descriptive statistics with each items codes, questionnaire, mean, standard deviation/standard error and CFA. The common malpractices in pharmaceutical personal selling as indicated by our respondents with their mean and standard deviation are as follows, The MRs are not totally honest when informing physician (3.366, 1.116), The MRs often misrepresent scientific data about drugs (3.536, 0.876), The MRs usually don't give accurate data about the side effects of the drugs (3.54, 1.088), The MRs provide wrong information by promoting products in an off-label indication during sales calls (3.383, 1.11), The MRs usually exaggerate when presenting the benefits of a new drug (3.40, 1.108), The MRs often misrepresent competitors' products to gain competitive advantage (3.191, 1.182), The MRs usually make bad remarks about their competitors (3.528, 0.862), The MRs usually misleading about sufficiency of quantities of competitors drugs availability (3.353, 0.889), The MRs often under estimates efficacy of competitor's drugs (3.477, 1.077), The MRs usually exaggerate the cost of competitors product (3.57, 0.984), MRs may cross ethical boundaries by giving gifts to physicians (3.447, 0.856), The MRs support important conferences and speakers (3.523, 0.801), as per mean and standard deviation all above factors moderately significant impact on physicians prescribing as agreed by our respondents..

Promotional gifts influence physician prescribing (3.885, 1.035), Sponsored meals are influential (3.69, 0.698), Conference attendance would decline without meal (4.013, 0.838), Medication sample are influential (3.711, 0.871), Sponsored resort seminars bias physician prescribing behavior (3.902, 0.924), further more gifts, meals, samples and resort seminars high degree of influences on physicians prescribing as per results score of mean and standard deviation. Similarly, following are the impact of personal selling malpractices on physicians as indicated by our respondents, The MRs influence physician prescribing. (3.881, 0.991), Physicians changed practice based on discussion with a MRs (3.906, 1.17), and formulary requests made at suggestion of an MRs (3.830, 1.058). In relation with these above means and standard deviations score it is clearly indicated that MRs have high degree of influences on physicians.

Following are the mean and standard deviations of the important organizational determinants of malpractices; Pharmaceutical company set Unrealistic target fixing for their Medical reps (3.681, 1.151), Pharmaceutical company engaged employees violates ethics for achieving target (3.715, 0.976), Pharmaceutical sales personal are subject to very little direction from company's management (3.723, 1.233),

Gaps in sales training, medical reps will be more likely to bribe physicians (3.813, 1.071), and pharmaceutical company is operating consistently without principles, values, and beliefs (4.196, 0.882), score results indicates high degree of influences on above said malpractices, While hidden permission from the manager to engage in unethical practice (3.604, 0.856), and Pharmaceutical Sales personnel need to get ethical training in order to enhance their sales performance (3.626, 0.848), significant moderate effect on PSM. Physicians related includes, active participation of the physician in the unethical practice by the reps (3.949, 0.888), Active participation of the physicians in the accepting incentives by the reps (4.000, 1.048),

Physician's expectation of expensive gifts 3.809, 1.084) and physician's request for sponsoring family trips (3.979, 0.996), as per mean and standard deviations scores of all above factors high degree of agreement that physicians drives unethical practices in Pakistan pharmaceutical. MRs and colleagues related antecedents involves, Active participation of the team leaders/supervisors in the unethical practice by the reps (3.251, 0.890), Active participation of the peer groups in the unethical practice by the reps (3.655, 0.939), Personality traits influence the unethical behavior of the MRs. (3.604, 1.175), MRs lack of product knowledge more likely to engage in unethical behaviors (3.553, 0.744) and Medical reps unfavorable attitude towards their jobs are more likely to engage in unethical behaviors (3.383, 0.997), all factors moderately significant impact on PSM. Malpractices due to MRs work pressure and competition includes following items, sales job compensation method is an influential factor on MRs' ethical behavior (3.826, 1.06), Competition is more intense than before in the pharmaceutical market which influence unethical behavior of MRs (3.672, 0.997), and we are trained not to discover customer's product needs but to try to persuade them to buy (3.689, 0.886) above said factors mean and standard deviations indicates high level of agreement whereas, commission-based compensation encourages MRs to behave in an unethical manner (3.545, 1.328), company applies selling pressure even though the particular pharmaceutical product is not right for the particular target customer (3.370, 1.025), and company is always looking for ways to apply pressure to make salespeople sell (3.306, 1.04) significantly moderate impact on PSM. Furthermore, certain cultural norms can influence unethical behaviour. For instance, there are instances where dishonesty is seen as justified (3.97, 0.987), and bribery may be deemed acceptable if it is customary in a particular environment (3.847, 1.045). These statistics indicate a significant level of agreement based on the mean and standard deviation. On the other hand, the influence of country laws and regulations on ethical behaviour is considered moderately important (3.557, 1.227). Various factors in the workplace can influence the behaviour of medical representatives, leading them to engage in unethical practices (3.711, 0.946). The fear of losing their job or facing disciplinary action can compel them to refrain from engaging in unethical activities (4.226, 0.906). Additionally, the promise of rewards and promotion opportunities can also tempt medical reps to adopt unethical means in their work practices (3.881, 1.093). These findings were supported by the high level of agreement among our respondents, as indicated by the mean and standard deviation.

5.3 Measurement Model

Table 4 indicates reliability measures, the value of Cronbach’s alpha between 0.7 and 0.9 shows that the acceptability of the instrument is reliable. The most of our values exceed 0.8, indicating a high level of dependability and validity of the questionnaire, indicating its suitability for future research.

Table 3: Descriptive Statistics & Confirmatory Factor Analysis

Code	PERSONAL SELLING MALPRACTICES	Descriptive Stat		Confirmatory Factor Analysis		
		Mean	Std. Dev	Factor Loading	T-Stats	P-Values
PSM1	The Medical Representatives that visit physician are not totally honest when informing physician	3.366	1.116	0.775	17.438	0.000
PSM2	The Medical Representatives that visit physician often misrepresent scientific data about drugs.	3.536	0.876	0.770	28.223	0.000
PSM3	The Medical Representatives that visit physician usually don’t give accurate data about the side effects of the drugs.	3.54	1.088	0.839	35.657	0.000
PSM4	The Medical Representatives that visit physician provide wrong information by promoting products in an off-label indication during sales call.	3.383	1.11	0.705	43.086	0.000
PSM5	The Medical Representatives that visit physician usually exaggerate when presenting the benefits of a new drug.	3.4	1.108	0.868	24.018	0.000
PSM6	The Medical Representatives often misrepresent competitors’ products to gain competitive advantage.	3.191	1.182	0.770	18.710	0.000
PSM7	The Medical Representatives that visit physician usually make bad remarks about their competitors.	3.528	0.862	0.859	31.287	0.000
PSM8	The Medical Representatives that visit physician usually misleading about sufficiency of quantities of competitors drugs availability.	3.353	0.889	0.918	35.808	0.000
PSM9	The Medical Representatives that visit physician often under estimates efficacy of competitor’s drugs.	3.477	1.077	0.797	16.615	0.000

PSM10	The Medical Representatives that visit physician usually exaggerate the cost of competitors product	3.57	0.984	0.828	13.908	0.000
PSM11	Promotional gifts influence physician prescribing	3.885	1.035	0.808	27.034	0.000
PSM12	Medical Representatives may cross ethical boundaries by giving gifts to physicians.	3.447	0.856	0.732	34.549	0.000
PSM13	Sponsored meals are influential	3.6	0.698	0.839	34.576	0.000
PSM14	Conference attendance would decline without meal.	4.013	0.838	0.796	29.980	0.000
PSM15	Medication sample are influential.	3.711	0.871	0.792	39.573	0.000
PSM16	Pharmaceutical representatives support important conferences and speakers.	3.523	0.801	0.845	15.718	0.000
PSM17	Sponsored resort seminars bias physician prescribing behavior	3.902	0.924	0.742	22.790	0.000
	PHYSICIANS DECISION INFLUENCES					
PDI1	Pharmaceutical representatives influence physician prescribing.	3.881	0.991	0.893	32.678	0.000
PDI2	Physicians changed practice based on discussion with a pharmaceutical representative	3.906	1.17	0.922	25.387	0.000
PDI3	Information from representative presented at conference influences physician prescribing	3.515	1.081	0.845	22.019	0.000
PDI4	Formulary requests made at suggestion of a pharmaceutical representative.	3.83	1.058	0.877	35.795	0.000
	ORGANIZATION RELATED MALPRACTICES					
ORM1	Pharmaceutical company set Unrealistic target fixing for their Medical reps.	3.681	1.151	0.827	27.145	0.000
ORM2	Pharmaceutical company engaged employees violates ethics for achieving target.	3.715	0.976	0.800	28.567	0.000
ORM3	Pharmaceutical sales personal are subject to very little direction from company's management	3.723	1.233	0.717	29.914	0.000
ORM4	Pharmaceutical Sales personnel need to get ethical training in order to enhance their sales performance	3.626	0.848	0.756	25.674	0.000

ORM5	Gaps in sales training, medical reps will be more likely to bribe physicians.	3.813	1.071	0.802	16.899	0.000
ORM6	Pharmaceutical company is operating consistently without principles, values, and beliefs	4.196	0.882	0.808	35.751	0.000
ORM7	Hidden permission from the manager to engage in unethical practice	3.604	0.856	0.828	13.392	0.000
	PHYSICIANS RELATED MAL PRACTICES					
PRM1	Active participation of the physician in the unethical practice by the reps.	3.949	0.888	0.709	23.111	0.000
PRM2	Active participation of the physicians in the accepting incentives by the reps.	4	1.048	0.911	14.924	0.000
PRM3	Physician's expectation of expensive gifts	3.809	1.084	0.905	46.613	0.000
PRM4	Physician's request for sponsoring family trips	3.979	0.996	0.771	9.849	0.000
	MRs & COLLEAGUE RELATED MALPRACTICES					
MCM1	Active participation of the team leaders/supervisors in the unethical practice by the reps.	3.251	0.89	0.732	23.728	0.000
MCM2	Active participation of the peer groups in the unethical practice by the reps.	3.655	0.939	0.780	15.890	0.000
MCM3	Personality traits influence the unethical behavior of the MRs.	3.604	1.175	0.737	18.283	0.000
MCM4	Medical representatives lack of product knowledge more likely to engage in unethical behaviors.	3.553	0.744	0.750	9.403	0.000
MCM5	Medical reps unfavorable attitude towards their jobs are more likely to engage in unethical behaviors.	3.383	0.997	Deleted	35.343	0.000
	WORK PRESSURE & COMPETITION RELATED MALPRACTICES					
WCM1	Sales job compensation method is an influential factor on MRs' ethical behavior.	3.826	1.06	0.956	44.467	0.000
WCM2	Commission-based compensation encourages MRs to behave in an unethical manner.	3.545	1.328	0.883	38.212	0.000

WCM3	Competition is more intense than before in the pharmaceutical market which influence unethical behavior of MR.	3.672	0.997	0.868	36.004	0.000
WCM4	We are trained not to discover customer's product needs but to try to persuade them to buy.	3.689	0.886	Deleted	29.010	0.000
WCM5	Company applies selling pressure even though the particular pharmaceutical product is not right for the particular target customer.	3.37	1.025	0.723	21.197	0.000
WCM6	Company is always looking for ways to apply pressure to make salespeople sell.	3.306	1.04	0.809	11.944	0.000
	CULTURE RELATED MALPRACTICES					
CRM1	In some situations cheating is the right thing to do.	3.97	0.987	DELETED	15.500	0.000
CRM2	Bribery is acceptable if it is customary in the present environment.	3.847	1.045	0.775	43.337	0.000
CRM3	Country law or regulation is an important factor of ethical behavior.	3.557	1.227	0.851	30.582	0.000
	JOB RELATED MALPRACTICES					
JRM1	Situational factors influence MRs to behave unethically.	3.711	0.946	0.833	9.849	0.000
JRM2	The reward or threat of being fired forces medical reps not to do unethical activities.	4.226	0.906	0.723	43.212	0.000
JRM3	Reward and promotion opportunities influences medical reps to adopt unethical means in work practices.	3.881	1.093	0.880	39.672	0.000

Table 4: Cronbach's alpha, reliability and average variance extracted measures

Codes	Variables	Items	Cronbachs Alpha	Composite Reliability	Average Variance Extracted
PDI	Physicians Decision Influences	4	0.935	0.936	0.783
PSM	Personal Selling Mal-practices	17	0.945	0.949	0.541

ORM	Organizational Related Malpractices	7	0.934	0.938	0.567
PRM	Physicians Related Malpractices	4	0.902	0.917	0.622
MCM	MRs & Colleague Related Malpractices	5	0.779	0.781	0.543
JRM	Job-Related Malpractices	3	0.848	0.862	0.664
CRM	Cultural Related Malpractices	3	0.743	0.799	0.528
WCM	Work Pressure & Competition, Related Malpractices	6	0.922	0.933	0.669

Table 3 showed, the Confirmatory Factor Analysis (CFA) with detail to assess the construct validity of the construct and its measure of the study instrument, revealing significant shared variance between the construct and its measure, as per Hulland’s research. All items had factor loadings greater than 0.7, except for three items (MCM5, CRM1 and WCM4), items with values below 0.7 as indicated in figure 2. Furthermore, there were no problems identified with the composite reliability (CR) and average variance extracted (AVE) since all item values above 0.70 and 0.50, respectively (Ab Hamid, Sami and Mohmad Sidek 2017; Hulland 1999; Nunnally 1978). The research hypotheses were tested using Structural Equation Modeling (SEM). The research model depicted in Figure 1, using software smart PLS 4.0 for research hypothesis assistance.

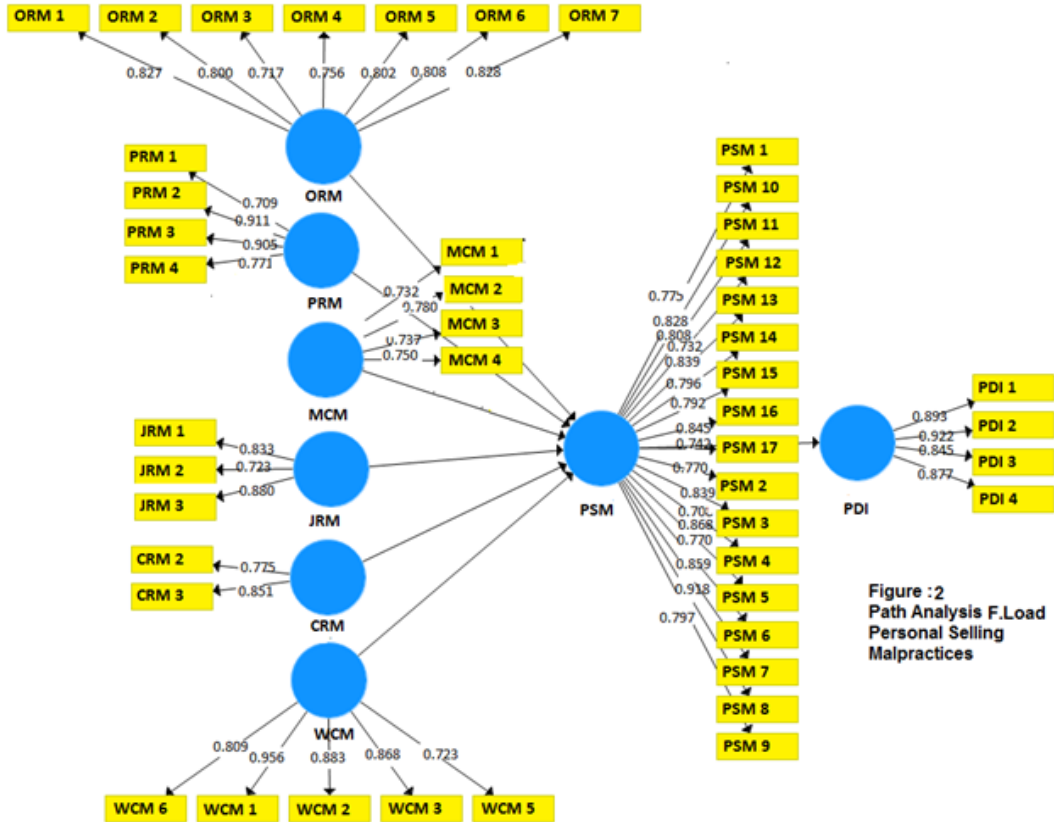


Figure 2: Items factor loading

The usual methodological mate of convergent validity, discriminant validity looks at how different components' assessments differ from one other within the same model. Discriminant validity, as defined by Ab Hamid, Sami, and Mohamad Sidek (2017), Hair et al. (2012), Hair, Ringle, and Sarstedt (2011), and Hulland (1999), essentially characterizes the degree to which measurements of one construct differ from measurements of other constructs in the same model. To find discriminant validity, one can use one of several methods (Rönkkö& Cho 2022; Campbell & Fiske 1959). This publication makes use of the following methods: the Cross-Loading methodology, the Heterotrait-Monotrait Ratio (HTMT) (Henseler, Ringle, & Sarstedt 2015), and the Fornell and Larcker Criterion (Fornell&Larcker 1981). As an alternate, highly effective method for determining discriminant validity, the Heterotrait-Monotrait Ratio (HTMT) has been proposed (Henseler, Ringle&Sarstedt 2015). Clark and Watson (1995) and Tabri and Elliott (2012) both state that the typical acceptance threshold for HTMT is 0.85, whereas Gold, Malhotra and Segars (2001) and Teo, Srivastava and Jiang (2008) both state that it is 0.95.

Table 5 shows the HTMT criterion that was used to establish discriminant validity, which allowed for the precise measurement of the Heterotrait-Monotrait Ratio (HTMT) (Henseler, Ringle, & Sarstedt 2015).

Table 5: Heterotrait-Monotrait Ratio (HTMT) Criterion

	CRM	PSM	MCM	WCM	ORM	PDI	JRM	PRM
CRM								
PSM	0.879							
MCM	0.853	0.878						
WCM	0.931	0.899	0.895					
ORM	0.945	0.852	0.863	0.926				
PDI	0.877	0.884	0.856	0.857	0.861			
JRM	0.926	0.854	0.855	0.856	0.905	0.879		
PRM	0.85	0.852	0.888	0.859	0.898	0.886	0.877	

A measure of the mean absolute value of the covariance residual is the root mean square residual (RMSR) (SmartPLS)Henseler, Ringle, and Sarstedt (2014) and Hu and Bentler (1999) found that SRMR, with a cutoff value of less than or equal to 0.08, is the most model-sensitive metric. According to Lohmöller (1989), the Bentler-Bonett index suggested using the NFI in conjunction with PLS route modeling. According to Hu and Bentler (1999), factor models are deemed appropriate when the NFI value is more than 0.90. The Model fit indices in Table 6 elucidate that the examination model fits in accordance with the estimated model. Scaled X2 = 119.494, SRMR = 0.040, NFI = 0.947, According to above mentioned researchers the appropriate scores for the indices.

Table 6: Measurement Model Fit Indices

INDICES	Saturated model	Estimated model
SRMR	0.040	0.040
d_ ULS	0.044	0.044
d_ G	0.042	0.041
Chisquare	121.084	119.494
NFI	0.946	0.947

5.4 Structural Model

According to Hair, Ringle, and Sarstedt (2011), the Path-Coefficient in PLS-SEM is a standardized regression coefficient (β) that shows how the constructs directly affect each other in order to evaluate the structural model and hypothesis. According to Hair, Ringle, and Sarstedt (2011), the bootstrap method evaluates the significance of path coefficients associated with the path's standard error and the t-value in partial least squares path analysis. To investigate the path coefficients and test the hypotheses, 5000 bootstrap sub-samples were utilized.

According to Hair, Ringle, and Sarstedt (2011) and Kazár (2014), path coefficients are deemed significant when the p-value is less than 0.05, and they are not significant when it is greater than 0.05.

Table 7: Hypotheses testing result for direct relationship

Hypotheses	Relationship	Standard Beta	Standard deviation	T-statistics	Decision	P values
H1	Personal Selling Malpractices -> Physician Decision Influences	0.592	0.071	8.308	supported	0.000
H2	Organization Related Malpractices -> Personal Selling Malpractices	0.616	0.124	4.982	supported	0.000
H3	Physicians Related Malpractices -> Personal Selling Malpractices	0.326	0.041	7.947	supported	0.000
H4	MRs & Colleague Related Malpractices-> Personal Selling Malpractices	-0.210	0.071	2.955	supported	0.003
H5	Cultural Malpractices -> Personal Selling Malpractices	0.230	0.071	3.241	supported	0.001
H6	Work Pressure & Competition -> Personal Selling Malpractices	0.400	0.103	3.866	supported	0.000
H7	Job-Related Malpractices -> Personal Selling Malpractices	-0.030	0.110	0.273	Not supported	0.785

Table 7, summarizes the measures that were carried out. H1, H2, H3, H4, H5, and H6, are significant (accept the hypotheses with p-values less than 0.05), H7 insignificant (reject the hypotheses with p-values more than 0.05).

The structural model tests were conducted on samples in the second stage of the study. Here are the results of hypothesis testing using 5,000 bootstrap re-samples, as shown in Table 7 and figure 3. The data provided strong support for H1 ($b = 0.592$, $p < 0.01$). H2 was strongly supported by the data ($b = 0.616$, $p < 0.01$). The data provided strong support for H3 ($b = 0.326$, $p < 0.01$). The data provided strong support for H4 ($b = -0.210$, $p < 0.01$). H5 the data provided strong support for the hypothesis ($b = 0.230$, $p < 0.01$). H6 was strongly supported by the data ($b = 0.400$, $p < 0.01$). H7 was confirmed by the data, with a negative and insignificant coefficient of -0.030 ($p > 0.05$). Therefore, with the exception of job-related characteristics such

as rewards or threats of being fired (which are not significant), all variables strongly support the hypotheses.

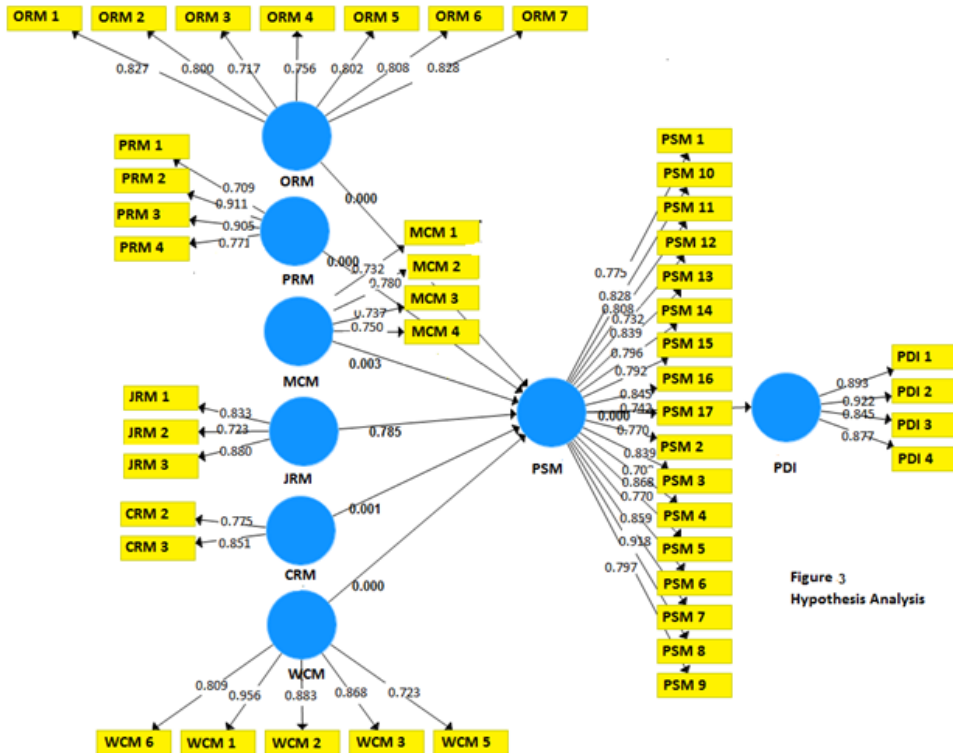


Figure 3: Hypotheses Results

5.4.1 Mediation Analysis

The first step in conducting a mediation analysis using PLS-SEM is to assess the direct or immediate influence of independent variables on the endogenous variable. This influence should be significant in the absence of a mediator (Zhao, Lynch & Chen, 2010).

A table of Specific Indirect Effects containing the results of mediating effects appears below.

Table 8. Hypotheses testing results for mediating effect

Hypotheses	Relationship	Standard Beta	Standard deviation	T-statistics	Decision	P values
H8	Organization Related Malpractices -> Personal Selling Malpractices-> Physician Decision Influences	0.168	0.037	4.570	supported	0.000

H9	Physicians Related Malpractices -> Personal Selling Malpractices-> Physician Decision Influences	0.111	0.039	2.848	supported	0.004
H10	MRs & Colleague Related Malpractices-> Personal Selling Malpractices-> Physician Decision Influences	0.042	0.019	2.195	supported	0.028
H11	Cultural Malpractices -> Personal Selling Malpractices-> Physician Decision Influences	0.263	0.045	5.880	supported	0.000
H12	Work Pressure & Competition -> Personal Selling Malpractices-> Physician Decision Influences	0.156	0.068	2.305	supported	0.021
H13	Job-Related Malpractices -> Personal Selling Malpractices-> Physician Decision Influences	-0.026	0.028	0.940	Not supported	0.347

Additionally, we examined the role of personal selling practices in mediating the effects of organization-related malpractices, physician-related malpractices, and medical representatives. Unethical behavior among colleagues, the stress of work pressure and competition, cultural issues within the workplace, job-related misconduct, and the influence of physicians' decision-making. We utilized the product of the coefficient approach and employed the bootstrapping resampling method to assess the significance of the specific indirect effect. The data sets provided strong evidence in support of H8 ($b = 0.168$, $p < 0.01$). H9 was also confirmed in the data sets ($b = 0.111$, $p < 0.05$). The data sets provided support for H10 ($b = 0.042$, $p < 0.05$), according to the findings. H11 was also confirmed in the data sets ($b = 0.263$, $p < 0.01$). H12 was also confirmed in the data sets ($b = 0.156$, $p < 0.05$). H13 was not supported in the data sets ($b = -0.026$, $p > 0.05$). More specifically, the findings indicate that personal selling malpractices play a significant role in mediating the effects of organization-related malpractices, physician-related malpractices, and MRs and colleagues related malpractices, the impact of work pressure and competition, and the influence of organisational culture on physicians' decision-influences (Table 8).

6. DISCUSSION

Our study makes a significant contribution to the existing knowledge about the wrongdoings of medical representatives and other stakeholder. This study contributed valuable insights to the current body of research on the ethical behaviour of medical representatives. Upon careful examination of the content, it becomes evident that the Pakistani pharmaceutical industry is susceptible to common unethical practices found in marketing literature. These practices include providing customers with inaccurate or incomplete information, using incentives to influence their decisions, and making derogatory comments about competitors' and their products.

This study reveals fascinating discoveries about the acceptance and justification of malpractices by specific medical representatives and physicians. Pharmaceutical companies utilise a range of strategies to establish connections with prescribers,

as highlighted by Skandrani & Sghaier (2016), Ahmed (2014), and Zipkin and Steinman (2005). Malpractices have a significant positive impact on the decision-making of physicians. Based on the empirical evidence meeting the analysis thresholds ($\beta = 0.592$, $t = 8.308$, $p < 0.05$), this finding supports hypothesis H1 as stated in section 5. There appears to have been a noticeable change in moral values, specifically within the healthcare sector of the pharmaceutical industry in Pakistan. Managers in the pharmaceutical industry can gain valuable insights by understanding the ethical challenges and factors that influence them. This understanding can help them effectively navigate potential dilemmas faced by medical representatives. Recognising and addressing these questionable ethical behaviours is crucial for improving the reputation of the pharmaceutical industry and building strong customer relationships (Thomas et al., 2004; Schwepker and Hartline, 2005).

Previous research has mainly focused on organisational and individual factors when studying the causes of malpractices among MRs. Our study has revealed additional factors that contribute to industry malpractices. These factors include physicians' misconduct, work pressure and competition, misconduct related to MRs' jobs, misconduct related to MRs' colleagues, and cultural influences on misconduct.

Multiple studies have indicated that certain factors within organisations can lead to unethical behaviour in personal selling (Schwepker et al., 1997; Schwepker and Hartline, 2005; Ferrell et al., 2007; Maignan and Ferrell, 2004). In previous research, the focus was primarily on the content of ethics programmes in organisations. This research specifically looked at how training and other organisational factors influenced the ethical climate, as described by Thompson (1990). Our study has made a valuable contribution by emphasising the distinction between ethical climate and training programmes. This contribution is evident in both our conceptual understanding and empirical evidence ($\beta = 0.616$, $t = 4.982$, $p < 0.01$), as stated in hypothesis H2 in section 5. Based on our research, it appears that representatives who have participated in training programmes are more likely to adopt ethical practices compared to their counterparts in companies that have not. Addressing the ethical challenges in the pharmaceutical industry can be greatly beneficial. One way to do this is by implementing regular and comprehensive ethics training programmes for medical representatives. Additionally, incorporating ethics courses into educational curricula can also help in this regard. Furthermore, the adoption of a tightly controlled system and adherence to deontological codes have been proven to have a beneficial effect on the ethical behaviour of MRs. Pharmaceutical companies can enhance their MRs' ability to handle ethical dilemmas by implementing and following codes and controls.

Several studies have emphasised the significance of factors related to physicians in instances of personal selling malpractices (Bush et al., 2017; Ameer and Halinen, 2018; Skandrani & Sghaier, 2016). In section 5, it was found that physicians' factors had a positive impact on the unethical practices of medical representatives. The results showed a significant relationship ($\beta = 0.326$, $t = 7.947$, $p < 0.01$), supporting hypothesis H3. One aspect to consider is the influence of physicians' expectations regarding costly incentives. Our findings confirm previous research indicating that certain physicians may exert pressure on medical representatives to engage in

unethical practices.

Various studies have found that personal factors, including personality traits, demographics, knowledge, family support, and colleagues, play a significant role in influencing malpractices among medical representatives (Caywood and Laczniak 1986; Dubinsky et al., 1992; Andrews, 2005; Al-Khateeb et al. 2007; Karim et al., 2009; Roche, 2013; Skandrani and Sghaier, 2016). In section 5, it was discovered that factors involving MRs and their colleagues had a positive influence on the occurrence of malpractices among medical representatives. This was supported by hypothesis H4, with a β coefficient of -0.210, t-value of 2.955, and p-value less than 0.05. This group of factors includes MRs personal, peers, supervisors, and chemists. Our findings align with previous research indicating that MRs may engage in malpractices due to personal and peer pressure.

Prior studies have indicated that cultural factors play a significant role in shaping MRs and malpractices. These factors encompass a range of elements, including laws, customs, values, and even national identity (Francer et al., 2014; Skandrani and Sghaier 2016). According to Hunt and Vitell (1986), an individual's cultural background plays a role in shaping their ethical judgement. In addition, it seems that cultural factors have a positive influence on the ethical behaviour of medical representatives. This is supported by the statistical analysis ($\beta = 0.230$, $t = 3.241$, $p < 0.01$) mentioned in hypothesis H5 in section 5. It appears that, even with regulations and laws in place, malpractices continue to persist without being fully eradicated. Likewise, it is essential for public authorities to enhance regulatory bodies and implement strict penalties, such as temporary bans or suspensions of marketing authorisation for drugs, as well as fines for pharmaceutical companies that violate the law. As a way to address this issue, pharmaceutical industries in both Europe and the United States have implemented strict penalties for any violations. Possible penalties for violations can include substantial monetary fines, being barred from the market for pharmaceutical products, or a combination of both.

Past research has found a correlation between the demands of work and the ethical conduct of employees. Physicians and medical representatives have acknowledged that their work pressure is influenced by a range of factors, such as product and business competitiveness, performance expectations, and salary structure. Skandrani and Sghaier (2016), Ferrell et al. (2007), and Hair et al. (2009) have all conducted research on this topic. Based on our research, it appears that when businesses become more competitive, it can lead to an increase in malpractices by MRs. This relationship was supported by our findings ($\beta = 0.400$, $t = 3.866$, $p < 0.01$), which align with hypothesis H6 in section 5. This topic seems to generate a lot of disagreement. The pharmaceutical industry was provided with funding, training programmes, and a regulatory framework to promote competitiveness and encourage a more ethical culture among its players. It is anticipated that heightened competition will foster a greater emphasis on ethical conduct within the pharmaceutical industry. This will likely encourage a deeper sense of customer loyalty. Shleifer (2004) suggests that competition can have a positive impact on promoting ethical behaviour over time.

Prior studies have emphasised the impact of termination, rewards, and promotion opportunities on medical representatives' malpractices (Schweitzer et al., 2004; Ishida and Brown, 2013; Kurland, 1999; Skandrani and Sghaier, 2016). On the other hand, the study revealed that job-related factors, such as rewards, compensation methods, or threats of being fired, do not have a significant or positive impact on the occurrence of malpractices among MRs in Pakistan. This finding is supported by the statistical analysis ($\beta = -0.030$, $t=0.273$, $p > 0.05$) mentioned in H7 of section 5. It is interesting to note that our findings differ from those of previous studies conducted by Skandrani and Sghaier (2016) and Barnett and Valentine (2004). It is evident that pharmaceutical companies need to establish and enforce clear guidelines regarding commission deductions (bonuses) or penalties in order to address and prevent malpractices.

In addition, we explored the potential effects of personal selling malpractices on organization-related malpractices, physician-related malpractices, and medical representatives. Instances of unethical behaviour among colleagues, the immense stress of work pressure and competition, cultural challenges within the workplace, job-related misconduct, and the consequences of physicians' decision-making. We used a statistical approach and resampling to evaluate the significance of a particular indirect effect. The data sets provide strong evidence supporting H8 ($b = 0.168$, $p < 0.01$). H9 was also supported by the data sets, showing a significant effect ($b = 0.111$, $p < 0.05$). The data sets provided confirm the support for H10, with a significant correlation coefficient of 0.042 ($p < 0.05$), as indicated by the findings. H11 was also supported by the data sets, showing a significant positive effect ($b = 0.263$, $p < 0.01$). H12 was also supported by the data sets, with a significant effect size ($b = 0.156$, $p < 0.05$). H13 did not receive support in the data sets. The analysis showed a coefficient of -0.026, with a p-value greater than 0.05. More specifically, the mediation results indicate that malpractices in personal selling have a significant impact on various outcomes, including misconduct in the workplace, malpractices related to physicians, malpractices related to MRs and colleagues, malpractices related to work pressure and competition, malpractices related to culture, and malpractices related to physicians' decision influences.

In addition, the concerns regarding malpractices and questionable conduct that have been discovered align with the issues that were previously investigated. It is concerning to see the government and policymakers not addressing the malpractices in the pharmaceutical industry. This supports Jones' (1991) model, which highlights the importance of ethical issue intensity in determining whether behaviour is ethical or unethical. The findings of this study build upon previous research, indicating that the severity of issues can vary based on the context.

A number of researchers have undertaken studies to investigate the impact of various factors on doctors' prescribing behaviour. These factors include ethical concerns related to the detailing practices of medical representatives and the gifts provided by pharmaceutical companies to physicians. One crucial aspect that needs attention is the limited number of empirical studies available.

Evaluating moral and immoral actions has long been considered a challenging task due to factors such as the influence of social desirability bias, the infrequency of immoral actions, and individuals' inclination to hide information (Treviño, 1992; O'fallon & Butterfield, 2005). As a result, there has been a decline in the number of studies examining the marketing practices of pharmaceutical companies for any signs of wrongdoing. The present study aims to fill the gaps in personal selling practices in the pharmaceutical industry of Pakistan.

7. CONCLUSION

Many developing nations' healthcare markets are unaffected by global health standards. All parts of the pharmaceutical industry should work together under unified self-regulatory rules (Francer et al., 2014). In developing countries, pharmacists have a significant impact on patients' decisions to purchase medication, presenting a valuable opportunity for pharmaceutical companies to optimize their investments (Taher et al., 2012). Responsible leadership behaviors are essential in the health sector as they pave the way for success (Longest, 2017). Enforcing strict organizational mandates can greatly influence the ethical conduct of medical representatives, as highlighted by Nagashekhara and Agil (2011). Companies that emphasize strong ethical standards, responsible behavior, and long-term sustainability often prioritize corporate social responsibility. This focus has a notable influence on the culture within companies and the actions of their employees (Erwin, 2011). This study's limitations include the following: (i) the lack of a comprehensive evaluation of how malpractice practices in personal selling affect doctors' decision-making across disciplines and activities; (ii) the lack of organizational patterns in the opinions of medical representatives and physicians; and (iii) the fact that prior research on malpractice determinants has not adequately addressed the impact on the overall dimensions of malpractice practices in personal selling.

The data (391 responses) were acquired from key stakeholders, including physicians and pharmaceutical sales representatives in Pakistan, have been surveyed on personal selling practices. The study highlights ethical dilemmas in this field, highlighting the importance of recognizing and addressing unethical issues for improved public image and long-term customers' relationship (Thomas et al., 2004; Schwepker and Hartline, 2005).

The research questions were formulated through a literature analysis, revealing gaps in the research context, as detailed in the following section, providing a concise overview and conclusion of the study's approach. According to the PLS path analysis, 6 out of the 7 hypotheses were accepted, with one being fail to accepted. There is a consensus and close alignment between previous research findings and literature on the subject of malpractices. Physicians and pharmaceutical representatives can be held liable for personal selling malpractice, as well as other related outcomes, as per Ahmed RR and Saeed A's (2014) research, which includes gifts exchange, personal items, and rehabilitation programs as per Khajeh SA and Khajeh HA (2013).

Biased judgment in pharmaceutical marketing can compromise patient care and safety, as highlighted by studies by (1994), Ziegler (1995) and Verbeke (1996). Malpractices in pharmaceutical marketing, such as false efficacy, concealing side effects, and promoting diseases, can lead to malpractices, affecting the quality of patient care our finding are similar with previous studies.

In Pakistan, physicians' decisions are influenced by personal selling malpractices, which include providing misleading information, making disparaging remarks about competitors and offering incentives. Key determinants of malpractices include organizational, stakeholder, individual, cultural, and job characteristics. These factors positively impact physicians' decisions, but their impact is not specific to the Pakistan pharmaceutical industry, necessitating further investigation in different contexts. The outcomes of this study are expected to contribute to Pakistan's pharmaceutical vision 2030, as part of Pakistan's drug regulatory authority Vision intends to enhance quality health services, which are projected to become more effective in practice. The investigation reveals the significant impact of pharmaceutical personal selling mal practices on physicians and medication prescribers, highlighting the detrimental consequences on patients. The remarks made by medical representatives, in various sorts, often cross ethical boundaries, causing significant harm to physicians and their patients.

The study's findings are expected to have a significant impact on pharmaceutical personal selling practices as well as the ideas and opinions of medical representatives and physicians. Based on the investigation's results, the physician community will learn about the risks and severity of the problem, they will stop contribution in this mal practices and immoral conduct in order to avoid being a part of the entire tier as a result, this study was significant in the setting of Pakistan pharmaceutical sectors. The paper will provide valuable insights for governments seeking to modify policies and pharmaceutical managers evaluating their organization's ethics and compliance programs. The presence of corruption in the pharmaceutical system can have severe consequences for a country's efforts to enhance the well-being of its people. Furthermore, the pharmaceutical system's allotted funds for the treatment of health conditions risk being frittered away if lawmakers do not tackle the issue of corruption. This has the potential to amplify the wealth gap that already exists in terms of access to healthcare and pharmaceuticals (Cohen et al., 2007). Academics and practitioners alike are very worried about the immorality of pharmacological activities. By shedding light on the pharmaceutical industry's ethical and unethical behaviors, this study hopes to aid practitioners.

REFERENCES

- Abdul Waheed, K., Jaleel, M. and Laeequddin, M. (2011), "Prescription loyalty behaviour of physicians: an empirical study in India", *International Journal of Pharmaceutical and Healthcare Marketing*, Vol. 5 No. 4, pp. 279-298.
- Abratt, R., & Penman, N. (2002). Understanding factors affecting salespeople's perceptions of ethical behavior in South Africa. *Journal of Business Ethics*, 35, 269-280.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.
- Adobor, H. (2012), "Ethical issues in outsourcing: the case of contract medical research and the global pharmaceutical industry", *Journal of Business Ethics*, Vol. 105No. 2, pp. 239-255.
- Albers Mohrman, S., Shani, A.B. and McCracken, A. (2012), "Organizing for sustainable health care: the emerging global challenge", in Albers Mohrman, S., Shani, A.B. and McCracken, A. (Eds), *Organizing for Sustainable Health Care*, Emerald Group Publishing Limited, London, pp. 1-39.
- Alkhateeb, F. M., Clauson, K.A., & Latif, D.A. (2011). Pharmacist use of social media. *International journal of pharmacy practice*, 19(2), 140-142.
- Anderson, J. C., & Gerbing, G. W. (1988). Structural equation modelling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423.
- Bandura, A. and Walters, R. H. (1977), *Social Learning Theory*, Vol.1, Prentice-hall, Englewood Cliffs, NJ.
- Banerjee, A., Das, A., & Chakrabarti, G. (2011). Tricks and truths of drug marketing: An insider's experience of an Indian pharmaceutical organization. *Asian Journal of Social Science*, 39(5), 581-604.
- Brodaty, H., Low, L. F., Gibson, L., & Burns, K. (2006). What is the best dementia screening instrument for general practitioners to use? *The American Journal of Geriatric Psychiatry*, 14(5), 391-400.
- Chimonas, S., Rozario, N. M., & Rothman, D. J. (2010). Show us the money: lessons in transparency from state pharmaceutical marketing disclosure laws. *Health services research*, 45(1), 98-114.
- Ching, A. T. and Ishihara, M. (2012), "Measuring the informative and persuasive roles of detailing on prescribing decisions", *Management Science*, Vol. 58 No.

7, pp. 1374-1387.

- Civaner, M. (2012), "Sale strategies of pharmaceutical companies in a 'pharmerging' country: the problems will not improve if the gaps remain", *Health Policy*, Vol. 106 No.3, pp. 225-232.
- Cooper, R. J., Anderson, C., Avery, T., Bissell, P., Guillaume, L., Hutchinson, A. and Murphy, E. (2008), "Nurse and pharmacist supplementary prescribing in the UK – a thematic review of the literature", *Health Policy*, Vol. 85 No. 3, pp. 277-292.
- Crigger, N. J. (2005), "Pharmaceutical promotions and conflict of interest in nurse practitioner's decision making: the undiscovered country", *Journal of the American Academy of Nurse Practitioners*, Vol. 17 No. 6, pp. 207-212.
- Doney, P. M., & Cannon, J. P. (1997). An examination of the nature of trust in buyer–seller relationships. *Journal of marketing*, 61(2), 35-51.
- Dubinsky, A. J. and Loken, B. (1989), "Analyzing ethical decision making in marketing", *Journal of Business Research*, Vol. 19 No. 2, pp. 83-107.
- Fraedrich, J. P. and Ferrell, O. (1992), "The impact of perceived risk and moral philosophy type on ethical decision making in business organizations", *Journal of Business Research*, Vol.24 No. 4, pp. 283-295.
- Hair, F. J., Jr., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): an emerging tool in business research. *European Business Review*, 26(2), 106–121.
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In *New challenges to international marketing* (Vol. 20, pp. 277-319). Emerald Group Publishing Limited.
- Hollon, M. F. (2005). Direct-to-consumer advertising: a haphazard approach to health promotion.
- JAMA, 293(16), 2030-2033.
- Hsu, Y.-H., Fang, W. and Lee, Y. (2009), "Ethically questionable behaviour in sales representatives—an example from the Taiwanese pharmaceutical industry", *Journal of Business Ethics*, Vol. 88 No. 1, p. 155.
- Hunt, S. D., & Vitell, S. (1986). A general theory of marketing ethics. *Journal of macro marketing*, 6(1), 5-16.
- Ingram, D. E., & O'neill, S. (1999). Cross-Cultural Attitudes as a Goal of Language Teaching in the Global Context.

Katz, D., Caplan, A. L., & Merz, J. F. (2010). All gifts large and small: toward an understanding of the ethics of pharmaceutical industry gift-giving. *The American Journal of Bioethics*, 10(10), 11-17.

Kaur, A., Singla, S., Kaur, M., & Singh, J. (2023). Critical Evaluation of Drug Promotional Literature Using WHO Ethical Criteria and Perception of Clinicians at a Tertiary Care Hospital. *Journal of Pharmacology and Pharmacotherapeutics*, 14(1), 41-46.

Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach.

International Journal of e-Collaboration (ijec), 11(4), 1-10.

Markham, A. (2012). Fabrication as ethical practice: Qualitative inquiry in ambiguous internet contexts. *Information, Communication & Society*, 15(3), 334-353.

Janakiraman, R., Dutta, S., Sismeiro, C. and Stern, P. (2008), "Physicians' persistence and its implications for their response to promotion of prescription drugs", *Management Science*, Vol. 54 No. 6, pp. 1080-1093.

Kamioka, H., Okada, S., Tsutani, K., Park, H., Okuizumi, H., Handa, S., & Mutoh, Y. (2014). Effectiveness of animal-assisted therapy: A systematic review of randomized controlled trials. *Complementary therapies in medicine*, 22(2), 371-390.

Kotler, P. (2004). *Ten deadly marketing sins: signs and solutions*. John Wiley & Sons.

Lassman, S. M., Shopshear, O. M., Jazic, I., Ulrich, J., & Francer, J. (2017). Clinical trial transparency: a reassessment of industry compliance with clinical trial registration and reporting requirements in the United States. *BMJ open*, 7(9), e015110.

Masood, I., Ibrahim, M., Hassali, M., & Ahmed, M. (2009). Evolution of marketing techniques, adoption in pharmaceutical industry and related issues: a review. *Journal of Clinical and Diagnostic Research*, 3(6), 1942-1952.

Mehralian, G., Nazari, J. A., Zarei, L., & Rasekh, H. R. (2016). The effects of corporate social responsibility on organizational performance in the Iranian pharmaceutical industry: The mediating role of TQM. *Journal of cleaner production*, 135, 689-698.

Mikhael, E. M., & Alhilali, D. N. (2014). Gift acceptance and its effect on prescribing behavior among Iraqi specialist physicians. *Pharmacology & Pharmacy*, 2014.

Moubarak, G., Martins, R. P., Zuily, S., Mechulan, A., & Guiot, A. (2010).

Frequency and type of gifts given by pharmaceutical industry to cardiology residents. *Presse Medicale* (Paris, France: 1983), 39(9), e197-204.

- Murphy, P. and Laczniak, G. (1981), "Marketing ethics: are view with implications for managers, educators and researchers", in *Review of Marketing 1981*, Enis B. M. and Roering K. J. (Eds), American Marketing Association, Chicago, pp. 251-266.
- Murshid, M. A. and Mohaidin, Z. (2017), "A systematic review of the influence of medical representatives and promotional tools on prescribing: a comparison between developed and developing countries", *International Journal of Pharmaceutical and Healthcare Marketing*, Vol. 11 No. 4, pp. 361-394.
- Perkins, M. B., Jensen, P. S., Jaccard, J., Gollwitzer, P., Oettingen, G., Pappadopulos, E., & Hoagwood, K. E. (2007). Applying theory-driven approaches to understanding and modifying clinicians' behavior: what do we know? *Psychiatric Services*, 58(3), 342-348.
- Ramsey, R. P., & Sohi, R. S. (1997). Listening to your customers: The impact of perceived salesperson listening behavior on relationship outcomes. *Journal of the Academy of marketing Science*, 25, 127-137.
- Rallapalli, K., Vitell, S. and Barnes, J. (1998), "The influence of norms on ethical judgments and intentions: an empirical study of marketing professionals", *Journal of Business Research*, Vol. 43 No. 3, pp. 157-168.
- Rasoolimanesh, S. M. (2022). Discriminant validity assessment in PLS-SEM: A comprehensive composite-based approach. *Data Analysis Perspectives Journal*, 3(2), 1-8.
- Ringle, C., DaSilva, D., & Bido, D. (2015). Structural equation modeling with the smart pls. *Brazilian Journal of Marketing*, 13(2),
- Robertson, D. C., & Anderson, E. (1993). Control system and task environment effects on ethical judgment: An exploratory study of industrial sales people. *Organization Science*, 4(4), 617- 644.
- Román, S., & Luis Munuera, J. (2005). Determinants and consequences of ethical behaviour: an empirical study of salespeople. *European Journal of marketing*, 39(5/6), 473-495.
- Sarstedt, M., Henseler, J., & Ringle, C. M. (2011). Multigroup analysis in partial least squares (PLS) path modeling: Alternative methods and empirical results. In *Measurement and research methods in international marketing* (pp. 195-

218). Emerald Group Publishing Limited.

- Schramm, M. E., Herbst, J. L. and Mattie, A. (2014), "The false claims act: a review and policy recommendations", *International Journal of Pharmaceutical and Healthcare Marketing*, Vol. 8 No. 3, pp. 295-313.
- Siddiqui, M. N., Garg, G., & Sharma, P. K. (2011). A short review on "A novel approach in oral fast dissolving drug delivery system and their patents". *Adv Biol Res*, 5(6), 291-303.
- Sillup, G. P. and Porth, S. J. (2008), "Ethical issues in the pharmaceutical industry: an analysis of US newspapers", *International Journal of Pharmaceutical and Healthcare Marketing*, Vol. 2 No. 3, pp. 163-180.
- Singhapakdi, A. and Vitell, S.J. (1991), "Research note: Selected factors influencing marketers' deontological norms", *Journal of the Academy of Marketing Science*, Vol. 19 No. 1, pp. 37-42.
- Skandrani, H. and Sghaier, M. (2016), "The dark side of the pharmaceutical industry", *Marketing Intelligence and Planning*, Vol. 34 No. 7, pp. 905-926.
- Suriyaprakash, C., & Stephan, C. (2022). A qualitative study on the factors contributing to organizational ethical behaviour of medical representatives. *International journal of economic perspectives*, 16(2), 83-98.
- Verschoor, C. C. (2006). Pharma industry has many ethics issues. *Strategic Finance*, 87(8), 16.
- Weeks, W. A., Loe, T. W., Chonko, L. B., & Wakefield, K. (2004). The effect of perceived ethical climate on the search for sales force excellence. *Journal of personal selling & sales management*, 24(3), 199-214.
- Zarei, A., Arab, M., Froushani, A. R., Rashidian, A., & Ghazi Tabatabaei, S. M. (2012). Service quality of private hospitals: The Iranian Patients' perspective. *BMC health services research*, 12, 1-7.
- Zipkin, D. A., & Steinman, M. A. (2005). Interactions between pharmaceutical representatives and doctors in training: a thematic review. *Journal of general internal medicine*, 20(8), 777- 786.