

EXPLORING FACTORS INFLUENCING ETHICAL MARKETING OF BIOMEDICAL PRODUCTS: A CASE STUDY IN PAKISTAN

Huizhi Wu¹, Wei Wang², Talib Hussain³, Manzar Rehman⁴, Tong Zelin⁵

Abstract: This study examines the impact of socio-cultural factors and informal business networks on ethical marketing practices in the biomedical industry of Gilgit-Baltistan, Pakistan. Using a qualitative research approach, data were collected through in-depth interviews with 36 respondents, including healthcare providers, biomedical product distributors, and local business stakeholders. Thematic analysis identified six major themes: (1) Trust-Based Marketing & Relationships, (2) Informal Business Networks & Influence, (3) Cultural & Community Influence, (4) Ethical Challenges & Trade-offs, (5) Traditional & Incentive-Driven Marketing, and (6) Regulatory Barriers & Compliance Issues. Findings indicate that trust-based relationships, word-of-mouth referrals, and informal agreements significantly shape marketing strategies, often at the cost of ethical transparency and regulatory compliance. Moreover, cultural expectations and social credibility outweigh formal ethical guidelines, leading to ethical trade-offs and weak policy enforcement. The study highlights the need for context-sensitive ethical marketing frameworks that balance local socio-cultural values with formal regulatory requirements. Strengthening policy interventions, regulatory oversight, and ethical awareness campaigns could help to mitigate the dominance of informal business networks and enhance compliance in biomedical marketing. The findings contribute to the broader discourse on business ethics, marketing regulations, and the role of socio-cultural norms in shaping commercial practices in developing regions.

Keywords: ethical marketing, informal business networks, socio-cultural influence, biomedical industry, Gilgit-Baltistan, trust-based marketing, regulatory compliance

Exploración de los factores que influyen en la comercialización ética de productos biomédicos: un estudio de caso en Pakistán

Resumen: Este estudio examina el impacto de los factores socioculturales y las redes empresariales informales en las prácticas de marketing ético en la industria biomédica de Gilgit-Baltistán, Pakistán. Mediante un enfoque de investigación cualitativo, se recopilaron datos mediante entrevistas exhaustivas con 36 encuestados, entre ellos profesionales sanitarios, distribuidores de productos biomédicos y actores empresariales locales. El análisis temático identificó seis temas principales: (1) Marketing y relaciones basadas en la confianza, (2) Redes empresariales informales e influencia, (3) Influencia cultural y comunitaria, (4) Desafíos éticos y compensaciones, (5) Marketing tradicional e impulsado por incentivos, y (6) Barreras regulatorias y problemas de cumplimiento. Los hallazgos indican que las relaciones basadas en la confianza, las recomendaciones boca a boca y los acuerdos informales configuran significativamente las estrategias de marketing, a menudo a expensas de la transparencia ética y el cumplimiento normativo. Además, las expectativas culturales y la credibilidad social prevalecen sobre las directrices éticas formales, lo que genera compensaciones éticas y una aplicación deficiente de las políticas. El estudio destaca la necesidad de marcos de marketing ético sensibles al contexto que equilibren los valores socioculturales locales con los requisitos regulatorios formales. El fortalecimiento de las intervenciones políticas, la supervisión regulatoria y las campañas de concienciación ética podrían ayudar a mitigar el predominio de las redes comerciales informales y a mejorar el cumplimiento normativo en el marketing biomédico. Los hallazgos contribuyen a un discurso más amplio sobre la ética empresarial, la normativa de marketing y el papel de las normas socioculturales en la configuración de las prácticas comerciales en las regiones en desarrollo.

Palabras clave: marketing ético, redes comerciales informales, influencia sociocultural, industria biomédica, Gilgit-Baltistán, marketing basado en la confianza, cumplimiento normativo

Explorando fatores que influenciam o marketing ético de produtos biomédicos: um estudo de caso no Paquistão

Resumo: Esse estudo examina o impacto de fatores sócio-culturais e de redes empresariais informais sobre práticas de marketing ético na indústria biomédica de Gilgit-Baltistan, Paquistão. Usando uma abordagem de pesquisa qualitativa, foram coletados dados através de entrevistas em profundidade com 36 sujeitos, incluindo prestadores de cuidados à saúde, distribuidores de produtos biomédicos e partes interessadas de negócios locais. Análise temática identificou seis temas principais: (1) Marketing e Relacionamentos Baseados em Confiança, (2) Redes de Negócios Informais e Influência, (3) Influência Cultural e Comu-

¹ International Business School, Hainan University, Haikou, Hainan, 570228 P. R. China, wuhuizhi43@gmail.com

² International Business School, Hainan University, Haikou, Hainan, 570228 P. R. China, **Correspondence:** 903689644@qq.com

³ International Business School, Hainan University, Haikou, Hainan, 570228 P. R. China; Department of Media Management, University of Religions and Denominations, Qom 37491-13357, Iran, 997142@hainanu.edu.cn

⁴ Department of Media Management, University of Religions and Denominations, Qom 37491-13357, Iran, rehman@icloud.com

⁵ International Business School, Hainan University, Haikou, Hainan, 570228 P. R. China, 993986@hainanu.edu.cn

nitária, (4) Desafios Éticos e Compensações, (5) Marketing Tradicional e Baseado em Incentivos, e (6) Barreiras Regulatórias e Questões de Conformidade. Os resultados indicam que relações baseadas na confiança, referências boca-a-boca e acordos informais moldam significativamente estratégias de marketing, frequentemente à custa da transparência ética e de conformidade regulatória. Além disso, expectativas culturais e credibilidade sócia superam diretrizes éticas, levando a compensações éticas e fraca aplicação de políticas. O estudo ressalta a necessidade de estruturas de marketing ético sensíveis ao contexto, que equilibrem valores sócio-culturais locais com requisitos regulatórios formais. Reforçar intervenções políticas, supervisão regulatória e campanhas de consciência ética pode ajudar a mitigar a dominância de redes empresariais informais e aumentar a conformidade no marketing biomédico. Os achados contribuem para ampliar o discurso sobre ética empresarial, regulações de marketing e o papel de normas sócio-culturais moldarem práticas comerciais em regiões em desenvolvimento.

Palavras-chave: marketing ético, redes empresariais informais, influência sócio-cultural, indústria biomédica, Gilgit-Baltistan, marketing baseado na confiança, conformidade regulatória

Introduction

The ethical promotion of biomedical products is crucial for maintaining transparency, customer confidence, and adherence to regulations in the healthcare industry. In areas with insufficient regulatory supervision, like Gilgit-Baltistan (GB), Pakistan, ethical dilemmas in biomedical marketing are significantly exacerbated. Marketing biomedical products in rural regions necessitates harmonizing of commercial goals and moral standards, guaranteeing that healthcare providers and consumers have precise, evidence-based information devoid of deceptive assertions or unethical advertising strategies(1).

This study examines the principal elements affecting the ethical marketing of biomedical items in the rural healthcare markets of GB, Pakistan. The region encounters distinct obstacles, such as inadequate regulatory enforcement, insufficient understanding of ethical standards, and market pressures that could result in compromised marketing tactics. Ethical difficulties including disinformation, conflicts of interest, pricing transparency, and the influence of informal networks in product promotion are significant matters that require examination(2).

Using a qualitative technique, this study collects data through in-depth interviews with 36 respondents working in biomedical product marketing, including sales representatives, distributors, and industry specialists. Their experiences and insights thoroughly comprehend the ethical dilemmas they face and the external influences shaping their marketing strategies. The study employs thematic analysis to identify the principal drivers and obstacles to ethical marketing practices in this rural healthcare context(3).

The research elucidates these factors, thereby enhancing the broader discourse on ethical business practices within the healthcare sector. The findings will provide critical insights for policymakers, regulatory bodies, and industry stakeholders to formulate strategies that foster ethical compliance, bolster consumer protection, and enhance the overall integrity of biomedical product marketing in GB, Pakistan.

Research Questions

Regulatory Frameworks – How do existing regulations and enforcement mechanisms impact ethical marketing practices in the biomedical sector of rural Gilgit-Baltistan?

Market Competition – In what ways does market competition influence the ethical decision-making of biomedical product marketers in rural areas?

Consumer Awareness – How does the level of awareness among healthcare providers and consumers affect ethical compliance in biomedical product marketing?

Socio-Cultural Influences – How do local socio-cultural factors and informal business networks shape ethical marketing practices in the biomedical industry of Gilgit-Baltistan?

Literature review

Ethical Marketing in the Biomedical Industry

Ethical marketing in the biomedical sector is essential for maintaining transparency, trust, and integrity in the promotion and sale of medical products. Biomedical products, such as medical instruments, diagnostic tools, and pharmaceutical supplies, significantly influence human health, rendering ethical issues essential. Ethical marketing denotes the commitment to equitable, transparent, and accountable promotional practices that emphasise patient safety, the accurate transmission of information, and conformity to industry standards. The biomedical sector has distinct issues, such as deceptive advertising, inflated product assertions, and conflicts of interest between manufacturers and healthcare practitioners. Ethical difficulties frequently emerge when profit-oriented goals eclipse consumer welfare, resulting in apprehensions regarding misinformation, unethical marketing methods, and partial endorsements. Due to the sensitive nature of biomedical products, rigorous compliance with ethical requirements is necessary to uphold credibility and safeguard public health(4).

The biomedical industry functions under a regulatory framework intended to guarantee that mar-

keting efforts conform to ethical standards. The efficacy of these restrictions differs by area, especially in developing economies where oversight systems may be inadequate. In rural regions like Gilgit-Baltistan, Pakistan, ethical marketing issues are intensified by limited regulatory enforcement, insufficient understanding among healthcare professionals, and the impact of informal business networks. Research has indicated that in these environments, aggressive sales strategies, inappropriate incentives, and the absence of standardised marketing protocols frequently result in ethical violations. Confronting these difficulties necessitates a comprehensive strategy, encompassing more robust regulatory rules, improved consumer education, and collective industry initiatives to advocate ethical marketing practices. By comprehending the fundamental principles of ethical marketing within the biomedical sector, researchers and policymakers can strive for more sustainable and responsible marketing methods that advantage both enterprises and public health(5).

Regulatory Frameworks and Ethical Compliance in Biomedical Marketing

Regulatory frameworks establish the basis for ethical compliance in biomedical marketing, offering norms that regulate promotional techniques, transparency, and consumer protection(6). These policies aim to prohibit unethical marketing practices, including false advertising, deceptive claims, and improper cooperation between manufacturers and healthcare professionals. Internationally, entities like the U.S. Food and Drug Administration (FDA), the European Medicines Agency (EMA), and the World Health Organisation (WHO) establish rigorous marketing regulations to guarantee the responsible promotion of biomedical products. In underdeveloped nations, regulatory enforcement is frequently inadequate, resulting in vulnerabilities that permit unethical practices to thrive. The lack of stringent oversight procedures results in unregulated promotional methods, where profit-oriented incentives occasionally supersede ethical considerations. Consequently, customers, especially in rural regions, are susceptible to disinformation, resulting in impaired healthcare decisions(7).

In Pakistan, regulatory entities like the Drug Regulatory Authority of Pakistan (DRAP) supervise the marketing of pharmaceutical and biomedical products. Nevertheless, enforcement in rural areas such as Gilgit-Baltistan is constrained by logistical difficulties, resource limitations, and insufficient monitoring infrastructure. Numerous biomedical marketers function within a milieu where informal networks, interpersonal interactions, and commercial motivations substantially influence marketing strategies. This generates a situation in which ethical adherence is not rigorously maintained, and regulatory frameworks are more theoretical than practical. Enhancing ethical compliance necessitates not only the existence of regulations but also their effective execution, consistent monitoring, and rigorous punishments for infractions. Furthermore, educating healthcare practitioners and biomedical marketers on ethical norms and regulatory mandates can enhance compliance and mitigate unethical marketing tactics. Confronting these regulatory issues is essential to guarantee that biomedical marketing fulfils its intended role of delivering accurate, transparent, and morally responsible product information to healthcare providers and consumers(8).

Market Competition and Its Impact on Ethical Marketing Practices

Market competitiveness significantly influences ethical marketing strategies within the biomedical sector. In a very competitive industry, companies frequently endeavour to optimise sales and market share, which may occasionally result in ethical concessions. Fierce rivalry among biomedical product makers and distributors may compel marketers to adopt aggressive promotional tactics, such as overstated product claims, deceptive marketing, and financial inducements for healthcare practitioners. Such techniques might compromise medical decision-making, since healthcare practitioners may be swayed by marketing strategies instead of objective product effectiveness. Companies often prioritise immediate financial profits over long-term ethical considerations, thus jeopardising patient safety. Ethical marketing, however, demands that businesses combine competition with responsibility, ensuring that promotional efforts fit with regulatory standards and encourage openness(8).

In remote areas such as Gilgit-Baltistan, Pakistan, the constraints of market competition are exacerbated by insufficient consumer awareness, inadequate regulatory enforcement, and the prevalence of informal business networks. Due to a scarcity of established healthcare facilities and the absence of standardised procurement procedures, biomedical marketers frequently depend on personal contacts and financial incentives to obtain contracts and enhance sales. This fosters an atmosphere in which unethical activities, such as underreporting product hazards or exaggerating advantages, proliferate(9).

Moreover, smaller biomedical enterprises competing against larger global corporations may feel pressured to employ aggressive marketing strategies to establish a presence in the market. Resolving these difficulties necessitates enhanced monitoring, ethical training for sales personnel, and a transition to value-centric marketing strategies that prioritise product quality, safety, and enduring consumer trust over short-term competitive gains. By fostering equitable competition and adherence to ethical standards, the biomedical sector may guarantee that marketing strategies enhance healthcare results instead of solely advancing commercial interests(10, 11).

Consumer Awareness and Ethical Decision-Making in Biomedical Product Marketing

Consumer awareness is crucial in influencing ethical decision-making in biomedical product marketing, as knowledgeable consumers and healthcare practitioners are less vulnerable to deceptive claims and unethical sales practices. Informed decision-making depends on precise product information, transparent pricing, and a comprehensive awareness of the risks and advantages related to biomedical products. In rural areas such as Gilgit-Baltistan, restricted access to healthcare education and insufficient awareness of industry norms can render customers susceptible to unethical marketing methods(12). Numerous healthcare practitioners and purchasers depend on sales reps as their principal source of product information, potentially resulting in biased decision-making if the information presented is inaccurate or exaggerated. The lack of independent verification systems intensifies this problem, enabling unethical mar-

keting practices to flourish. Enhancing consumer knowledge via educational initiatives, training programs for healthcare professionals, and transparent marketing strategies can enable consumers to make ethical and informed decisions. Furthermore, regulatory authorities must implement regulations mandating biomedical firms to furnish accurate, evidence-based information to ensure the maintenance of ethical marketing practices throughout the sector(13).

Socio-Cultural Influences on Ethical Marketing in Rural Healthcare Markets

Socio-cultural aspects significantly influence ethical marketing practices in rural healthcare markets, affecting customer behavior and corporate strategy. In areas such as Gilgit-Baltistan, conventional business procedures, human ties, and communal trust significantly influence the marketing and sale of biomedical products. Numerous rural healthcare providers and consumers depend on informal recommendations and personal networks instead of official regulatory requirements when making purchasing selections. This dependence on informal trust-based systems can occasionally supersede ethical considerations, as marketing professionals may prioritize relationship cultivation over transparent product information. Cultural norms around authority and hierarchy may render consumers reluctant to confront healthcare providers or sales personnel, permitting biased or misleading marketing strategies to remain unquestioned(14).

A significant socio-cultural factor is the inclination towards fast economic gains, which can affect marketing efforts in ways that contradict ethical standards. Incentives, including commissions, gifts, or cash prizes, may be provided to healthcare providers, in return for product endorsements, regardless of whether those items adhere to the highest ethical or medical standards. Additionally, local attitudes and views regarding healthcare items, particularly distrust towards novel technologies or foreign medical devices, might influence marketing narratives in ways that may not consistently adhere to ethical standards. Confronting these socio-cultural forces necessitates a customized strategy that honors local customs while advocating for ethical marketing

practices. This can be accomplished by culturally attuned awareness initiatives, enhanced community involvement, and policies that bolster ethical decision-making in the marketing of biomedical products(15).

Challenges in Implementing Ethical Marketing Strategies in Developing Regions

Executing ethical marketing tactics in underdeveloped nations is intricate due to inadequate regulatory enforcement, market-driven pressures, and socio-economic limitations. A primary difficulty is the absence of stringent regulatory oversight in the marketing of biomedical products. Numerous developing nations, such as Pakistan, possess ethical marketing norms; nevertheless, enforcement is hindered by resource constraints and ineffective monitoring systems. Consequently, unethical tactics including deceptive ads, inflated assertions, and inappropriate inducements to healthcare providers persist unabated. The lack of standardized standards across several locations exacerbates compliance challenges, allowing corporations to exploit regulatory loopholes to enhance sales(16). A notable obstacle is the economic and competitive pressures, encountered by biomedical firms functioning in resource-limited settings. In fiercely competitive markets with constrained customer purchasing power, enterprises frequently emphasize immediate financial profits over ethical considerations. Sales-oriented marketing methods, such as assertive promotions and incentives for healthcare providers, may result in ethical compromises. Furthermore, insufficient consumer awareness and education in rural areas facilitate the proliferation of unethical marketing practices (13). Numerous healthcare practitioners and consumers are deprived of dependable product information, heightening their reliance on sales personnel who may offer biased or inaccurate information. Addressing these difficulties necessitates a multifaceted strategy, encompassing enhanced regulatory frameworks, ethical training initiatives for marketers, and awareness campaigns to empower consumers. Enhancing ethical compliance in biomedical marketing can ultimately improve public health outcomes and bolster faith in the healthcare system (17).

Gaps in Existing Literature and Future Research Directions

Notwithstanding the increasing focus on ethical marketing within the biomedical industry, notable deficiencies persist in the current literature, especially regarding its use in underdeveloped and rural areas. The majority of research on biomedical marketing ethics concentrates on industrialized nations, characterized by established regulatory frameworks and consumer awareness(18). Nonetheless, there exists a paucity of studies about the impact of inadequate regulatory oversight, socio-cultural factors, and economic limitations on ethical marketing practices in emerging areas, like Gilgit-Baltistan, Pakistan. Moreover, although studies examine the impact of legislation on ethical compliance, there is a lack of studies regarding the efficacy of enforcement mechanisms, and the influence of informal business networks on marketing ethics in rural healthcare markets(19).

Future research should investigate context-specific ethical marketing difficulties in impoverished nations, specifically focusing on the interplay of legislative frameworks, consumer behavior, and competitive forces. There is a necessity for empirical research that evaluates the actual effects of unethical marketing on patient outcomes and trust in healthcare providers. Furthermore, research may explore novel approaches to advancing ethical marketing, including the impact of digital technologies, public awareness initiatives, and corporate social responsibility efforts (20). A comparative analysis of ethical marketing practices between developed and developing regions may provide insights into optimal practices and adaptive regulatory frameworks. Addressing these gaps will enhance the knowledge of ethical marketing difficulties and facilitate the development of sustainable solutions suited to various economic and cultural contexts(21).

Methodology

To investigate the elements that have an impact on the ethical marketing of biomedical products in the rural areas of Gilgit-Baltistan, Pakistan, this study makes use of a qualitative research design. To acquire a comprehensive understanding of the

experiences, viewpoints, and ethical problems that are encountered by professionals working in the biomedical marketing industry, a qualitative approach was selected as the method of investigation. A comprehensive understanding of the regulatory, socio-cultural, and market-driven elements that impact marketing practices can be achieved through the use of qualitative research methodologies. This is especially important when considering the complexity of ethical considerations in the marketing of biomedical products(22).

Procedure for the Accumulation of Data

The information required for this study was gathered by conducting in-depth, semi-structured interviews with a total of twenty-six respondents who were currently employed in fields that were associated with biomedical items. Choosing this strategy was done to provide participants with the opportunity to freely express their opinions while also ensuring that important topics concerning ethical marketing practices were discussed. Regulatory compliance, competitive pressures, socio-cultural factors, and consumer awareness were some of the topics that were discussed throughout the interviews when it came to biomedical marketing. The duration of each interview ranged from forty-five to sixty minutes, and it was carried out either in person or through online communication platforms, depending on the availability of the individuals who attended the interviews.

Before completing the interviews, informed consent was sought from every participant to guarantee the study's authenticity and ensure that it adhered to ethical standards. The participants were given the assurance that their responses would be kept anonymous and would only be used for the study. In addition, ethical criteria were adhered to in a stringent manner, which ensured that no respondent was forced to take part in the study and that they were allowed to withdraw from the research at any point in time. To conduct research that involved human participants, the study was conducted by the ethical criteria that have been established by international research organizations such as the American Psychological Association (APA) and the Declaration of Hel-

sinki of the World Medical Association.

The techniques of data analysis are as follows:

A thorough qualitative data analysis procedure was carried out on the gathered information, and thematic analysis methodologies were utilized throughout the process. An approach to qualitative research that is widely accepted is called thematic analysis(23). This approach entails systematically detecting, analyzing, and reporting on patterns (themes) that are present within the data. The following procedures were carried out throughout the analysis:

1. Data Familiarization. Each and every interview transcript was reviewed and reread with great attention to detail in order to accumulate a comprehensive comprehension of the material. This stage was helpful in determining the initial patterns and areas of conversation that needed to be addressed.

2. Coding. The transcripts were coded in a methodical manner, with significant terms and concepts that were repeated being tagged with brief descriptive phrases. The use of open coding made it possible for themes to emerge from the data in a manner that was entirely objective(24).

3. Sorting and Sifting. After that, the codes were arranged into more general categories by categorizing them according to the similarities and connections that existed between the various codes. While going through this procedure, it was necessary to combine categories that overlapped and make sure that distinct themes were preserved(25).

4. Tabulation and Data Organization. The themes were arranged into structured categories, which made it simpler to examine patterns and arrive at findings that have significance(25).

5. Thematic Code Development. Following the classification process, the thematic codes were established that were based on the themes that occurred the most frequently and were the most significant from an analytical standpoint(26).

Following the identification of the themes, the findings were organized in such a way as to em-

phasize the important elements that influence ethical marketing in the distribution and promotion of biomedical products by means of the result formulation process.

Validity and reliability of data

A number of different qualitative validation methods were utilized in order to improve the reliability of the study, including the following:

The findings were cross-verified and consistency was ensured through the use of triangulation, which involves using multiple sources of data (different respondents from different biomedical marketing jobs).

Following the completion of the theme analysis, the most important findings were discussed with a few of the participants for the purpose of validation. This was done to guarantee that their perspectives were appropriately portrayed(27).

- **Inter-Coder Reliability.** In order to reduce the possibility of bias, the coding was checked independently by a number of researchers in order to guarantee that the identification of themes was consistent.

- **Audit Trail.** In order to guarantee both repeatability and transparency, comprehensive records of the data collection, coding process, and analytic processes were kept.

In order to ensure that the findings of the study adequately portrayed the lived experiences and ethical problems that are encountered by biomedical product marketers, the use of thematic analysis provided a systematic yet flexible method to the interpretation of qualitative data. The findings that were generated from this analysis add to a deeper knowledge of how ethical considerations are managed in the process of marketing biomedical products in developing countries, particularly in rural settings that are resource-constrained, such as Gilgit-Baltistan.

Data Analysis

The data analysis section provides insights obtained from comprehensive interviews with 36 participants employed in biomedical product

marketing in rural Gilgit-Baltistan. A theme analysis was performed to discern principal trends, classify responses, and establish sub-thematic codes that represent the determinants affecting ethical marketing practices. The data was methodically coded, categorized, and examined using qualitative methods, assuring both validity and reliability. The results are organized according to four principal research questions, with each part emphasizing the predominant themes and sub-themes that arose from the respondents' viewpoints.

Analysis for- Regulatory Frameworks

Tables 1 to 8 are published at the end of the article.

Regarding the influence that pre-existing legislation and enforcement procedures have on ethical marketing practices in the biomedical sector in rural Gilgit-Baltistan, the responses of 36 participants are presented in Table 1. Several important concerns, including inadequate regulatory enforcement, a lack of oversight, unfair competition, and inadequate consumer protection, are brought to light by the solutions offered. Several of the respondents underlined that although there are restrictions in place, they are frequently not implemented properly, which allows unethical marketing techniques to continue with impunity. In addition, the task of sustaining ethical marketing standards is compounded by a number of factors, including policies that have become obsolete, the absence of consequences, and regulatory inefficiencies. The thematic codes that were developed from these comments offer insights into the major aspects that influence ethical compliance, as well as the necessity of more stringent enforcement, improved training, and independent regulatory monitoring.

In Table 2, the distribution of sub-thematic codes is presented under important representative words. This table also highlights the elements that influence ethical marketing in the biomedical sector of rural Gilgit-Baltistan. In the table, comments from thirty-six participants are organized into seven primary themes, each of which is accompanied by a sub-theme that reflects the regulatory, consumer, business, and competitive

difficulties that are present in the sector or industry.

The most prominent concerns are regulatory weakness and a lack of control, with each item accounting for 19.44% of the replies. Among these are problems such as insufficient enforcement, limited resources, an absence of audits, the presence of confusing legislation, and unscrupulous practices. The fact that consumer protection issues, such as a lack of information, the prevalence of counterfeit items, and unclear legal implications, make up 16.67 percent of replies exemplifies the dangers that end-users confront in a market that is inadequately regulated.

Concerns regarding misleading marketing techniques, a lack of ethical incentives, and the requirement for tougher legislation and independent scrutiny are reflected in the fact that both ethical business difficulties and the need for legislative reforms account for 13.89% of the total. The impact of unfair competition and legal loopholes on ethical marketing practices is highlighted by the competitive pressure phenomenon, which accounts for 11.11 percent of the total. Finally, although training and awareness gaps are the least represented component, they show a significant need for capacity-building activities to increase ethical marketing standards. This is despite the fact that they are the least represented aspect.

Analysis for- Market Competition

Table 3 provides insights into how market competition influences the ethical decision-making of biomedical product marketers in rural areas. The responses highlight various challenges, such as price pressure, misleading marketing tactics, and unfair competition, which force marketers to navigate ethical dilemmas. Many respondents expressed concerns over regulatory weaknesses and the lack of enforcement, allowing unethical practices to thrive. Additionally, economic constraints and consumer awareness gaps further complicate ethical marketing efforts. This table categorizes these responses under distinct thematic codes, reflecting the diverse factors shaping ethical decision-making in a competitive market.

Table 4 presents a statistical analysis of the principal elements affecting ethical decision-making in the marketing of biomedical products in rural markets. The primary issue, competitive pressure, constitutes 16.67% of respondents, signifying that market rivalry compels enterprises to implement aggressive techniques, compromise ethical standards, and perpetually modify their marketing plans. Likewise, deceptive marketing techniques account for 16.67%, underscoring prevalent issues such as misleading promotions, inaccurate product assertions, and unethical manipulation of stakeholders. Regulatory deficiencies, accounting for 13.89% of replies, highlight the prevalence of illicit market rivalry, inadequate enforcement, and corruption, enabling unscrupulous rivals to prevail.

Economic restraints, such as market domination and financial limitations, account for 8.33%, indicating that smaller enterprises have challenges in competing with larger corporations with superior resources. Consumer awareness and educational deficiencies constitute 11.11%, highlighting the issue of disinformation and the necessity for ethical training programs to assist customers in making informed choices. Bribery and unethical influence, at 8.33%, underscore improper financial inducements provided to healthcare personnel and regulatory entities. Ethical business issues, at 8.33%, suggest that companies emphasizing ethical procedures frequently lose clientele to competitors who partake in unethical behavior.

Market rivalry and pricing pressures account for 11.11% of respondents, highlighting challenges such as price wars, unsustainable pricing, and the absence of price control policies that compel enterprises to make immoral compromises. Finally, the necessity for policy reforms, however the least prevalent at 5.56%, indicates a significant requirement for ethical standards and governmental assistance to foster equitable market competitiveness.

Statistical findings indicate that market rivalry, coupled with regulatory loopholes and consumer deception, profoundly influences ethical decision-making in biomedical marketing. The elevated percentages linked to competitive pressure and misleading marketing indicate systemic is-

sues necessitating regulatory action and consumer awareness programs. Implementing tougher policies, ethical training, and market laws could alleviate unethical marketing techniques and foster equitable commercial rivalry.

Q No. 3- Consumer Awareness

Table 5 displays the responses of 36 participants about the impact of knowledge levels among healthcare providers and customers on ethical compliance in biomedical product marketing. The comments illustrate varied viewpoints regarding the influence of knowledge, regulatory awareness, and customer comprehension on the formulation of ethical marketing strategies. Each response is categorized under a thematic key word to highlight recurring patterns in the data. This table offers significant insights on the relationship between awareness levels and compliance with ethical norms in the biomedical sector.

The replies in Table 6 from 36 participants have been classified into six sub-thematic key codes, each denoting a significant element affecting ethical compliance in biomedical product marketing. The frequency and percentage distribution of replies reveal critical areas where awareness influences compliance.

The predominant category, “Consumer Knowledge and Understanding” (7 replies, 19.44%), underscores the critical importance of customer awareness in upholding ethical marketing practices. Respondents identified issues including product difference, counterfeit danger, consumer irresponsibility, and ignorance of certification, indicating that disinformation and a lack of consumer understanding render them more susceptible to unethical marketing activities. The elevated response rate in this category highlights the necessity for enhanced consumer education programs.

The “Healthcare Provider Awareness” category (6 responses, 16.67%) highlights deficiencies in knowledge among medical practitioners. Primary concerns encompass physician knowledge, verification challenges, and peer influence, illustrating how healthcare personnel may inadvertently facilitate unethical marketing due to insufficient

understanding or failure to authenticate product legitimacy. The understanding of ethical standards(6 responses) and the absence of interest(19 responses) suggest that not all healthcare providers are inclined to adhere to compliance rules.

Likewise, “Ethical Compliance Challenges” (6 replies, 16.67%) recognizes external influences and deceptive marketing tactics as significant impediments to ethical compliance. Themes include unethical influence(8 responses), inaccurate information(18 responses), and disinformation(23 responses) illustrate how unscrupulous marketers exploit awareness deficiencies. Furthermore, unintended promotion(24 responses) indicates that certain healthcare personnel may inadvertently advocate for non-compliant biomedical items.

The “Regulatory and Institutional Role” category (6 replies, 16.67%) emphasizes the function of public policies and institutions in fostering ethical compliance. Participants emphasized the significance of regulatory initiatives(22 responses), uniform awareness(31 responses), and cooperative endeavors(36 responses) to close knowledge gaps and guarantee compliance at the institutional level. The replies suggest that government-supported awareness initiatives and training programs may significantly enhance ethical marketing practices.

The “Educational and Awareness Efforts” category (6 replies, 16.67%) highlights the influence of awareness initiatives on ethical decision-making. Participants emphasized the necessity for hospital training(12 responses), media awareness(28 responses), and ethical training(35 responses) to improve compliance. The findings indicate that organized education and ongoing awareness initiatives can markedly enhance ethical marketing standards.

Finally, “Impact of Awareness on Ethical Decision-Making” (5 replies, 13.89%) underscores the direct influence of awareness on ethical conduct. Themes include educated decision-making(10 responses), prioritization of price over quality(14 responses), and ethical scrutiny(30 responses) suggest that knowledgeable healthcare practitioners and customers are more inclined to make ethical decisions, hence diminishing the likelihood of

unethical actions in biomedical marketing.

The findings indicate that awareness is essential for ethical compliance, with consumer information, healthcare practitioner education, regulatory enforcement, and organized awareness initiatives identified as primary factors. The relatively uniform distribution across most categories (16.67% for four groups) indicates that various factors affect compliance, necessitating a holistic strategy that includes consumers, providers, regulators, and institutions.

Q No. 4: Socio-Cultural Influences

This Table 7 categorizes responses into key themes that explain how local socio-cultural factors and informal business networks shape ethical marketing practices in the biomedical industry of Gilgit-Baltistan.

The table 8 classifies responses into six sub-thematic key codes, each reflecting a distinct facet of socio-cultural impacts on ethical marketing practices within the biomedical sector of Gilgit-Baltistan.

The predominant category, Cultural & Community Influence (25%), underscores the significant impact of local customs, word-of-mouth persuasion, and cultural norms on the formulation

of marketing tactics. This indicates that ethical marketing approaches are frequently supplanted by community-driven decision-making, wherein social credibility is prioritized over regulatory compliance.

Trust-Based Marketing and Relationships (19.44%) and Ethical Challenges and Trade-offs (19.44%) hold equal importance. The former highlights the influence of personal relationships and supplier allegiance on marketing choices, frequently resulting in partial product endorsements. The latter elucidates ethical problems, when informal corporate relationships affect decision-making to the detriment of ethical openness.

Informal Business Networks & Influence (16.67%) elucidates how clandestine agreements and informal control mechanisms govern the promotion of biological products, frequently circumventing ethical requirements. This substantiates the idea that local marketing predominantly depends on informal talks instead of explicit policies.

Traditional and Incentive-Driven Marketing (13.89%) illustrates how enterprises utilize incentives and conventional networking tactics to achieve market supremacy, occasionally resulting in ethical ambiguities. Ultimately, Regulatory

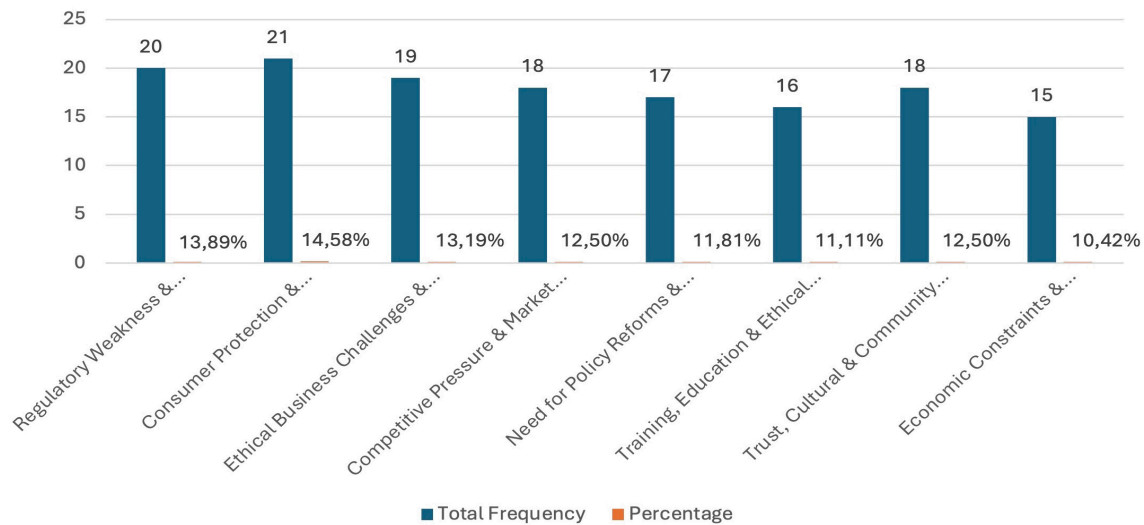


Figure 1 Factors Influencing Ethical Marketing of Biomedical Products

Barriers and Compliance Issues (5.56%) is the least reported category, suggesting that although regulatory challenges are present, they are eclipsed by robust cultural and informal business effects.

The findings indicate that socio-cultural elements and informal networks significantly influence biomedical marketing practices in Gilgit-Baltistan. Compliance with ethical marketing is frequently undermined by personal ties, cultural norms, and informal agreements, complicating the enforcement of conventional marketing ethics in the region.

Over all factors influencing ethical marketing of biomedical products.

Figure 1 shows over all comprehensive analysis of research. The ethical promotion of biomedical products is shaped by a confluence of regulatory, economic, competitive, and socio-cultural variables. A statistical examination of the principal themes extracted from qualitative research underscores the predominant issues influencing ethical standards in the marketing of these products.

Regulatory deficiencies and compliance challenges constitute a substantial obstacle to ethical marketing methods. The absence of stringent enforcement mechanisms and regulatory control results in inconsistent compliance with ethical standards, permitting unethical marketing practices to thrive. This problem is intensified by deficiencies in compliance monitoring, allowing enterprises to exploit regulatory gaps for competitive gain.

Concerns around consumer protection and awareness deficiencies are the most commonly reported issue, representing 14.58% of total replies. A significant number of consumers lack the requisite information to distinguish between ethically sold biomedical items and those advertised through deceptive claims. This underscores the pressing necessity for enhanced consumer education activities to improve informed decision-making and protect public health.

Ethical difficulties in business operations and the prevalence of misleading marketing methods constitute 13.19% of the complaints. Organizations

frequently encounter tensions between ethical integrity and profit-oriented objectives, resulting in misinformation, inflated product claims, and opaque commercial practices. These problems underscore the imperative for more stringent ethical standards and accountability in biomedical marketing.

The fierce rivalry in the biomedical sector imposes considerable pressure on companies, necessitating the implementation of assertive marketing strategies. Market limitations, such as restricted resources and pricing difficulties, compel corporations to resort to potentially immoral actions to sustain their competitive advantage. The 12.50% prevalence of this issue highlights the necessity for regulatory authorities to implement equitable competition frameworks that foster ethical business practices.

A significant percentage (11.81%) of the data indicates the need for regulatory reforms and an enhanced institutional role in regulating ethical marketing. Numerous parties promote revised policies that tackle new difficulties in biomedical product marketing. Augmenting institutional participation in policy enforcement can improve ethical adherence throughout the sector.

Inadequate training and insufficient ethical awareness among healthcare providers and marketers lead to unethical marketing practices. This subject underscores the necessity for organized training programs to embed ethical concepts in professionals engaged in biomedical product marketing, with a prevalence of 11.11%. Improved education can reduce unethical decision-making and promote a culture of accountability.

The significance of trust, cultural dynamics, and community influence in biomedical marketing is apparent, comprising 12.50% of the responses. Informal networks and conventional belief systems frequently influence consumer views, impacting their purchase choices. Organizations must reconcile ethical marketing with culturally attuned communication techniques to uphold credibility and consumer trust.

Economic limitations, such as elevated marketing expenses and financial demands, frequently com-

pel organizations to implement incentive-driven promotional techniques. This component, at 10.42%, underscores the ethical dilemmas linked to financial incentives in marketing. Although incentives can serve as an efficient mechanism, they must be regulated to avert unethical persuasive strategies that could deceive consumers.

Findings and Discussions

This study explores how socio-cultural factors and informal business networks shape ethical marketing practices in the biomedical industry of Gilgit-Baltistan, Pakistan. Given the region's strong reliance on trust-based relationships, community influence, and informal business dealings, ethical compliance in biomedical marketing often faces significant challenges. Through qualitative interviews with 36 respondents, the study identifies key themes that explain the complex interplay between local traditions, business ethics, and regulatory frameworks. The findings reveal that personal connections, informal networks, and socio-cultural norms significantly impact how biomedical products are marketed, often at the cost of ethical transparency and compliance.

Trust-Based Marketing & Personal Relationships

One of the most influential factors shaping marketing practices in Gilgit-Baltistan is trust-based marketing and relationship-driven transactions. The study finds that 19.44% of respondents highlighted the dominance of long-standing personal relationships in business decisions, particularly in the biomedical sector. Healthcare providers often prefer suppliers with whom they have personal or professional trust, sometimes at the expense of ethical standards. This aligns with existing research on relational contracting, where business ties take precedence over formal regulations.

Informal Business Networks & Ethical Trade-offs

A significant proportion (16.67%) of respondents pointed to the prevalence of informal business networks in marketing biomedical products. In such an environment, business deals are often finalized through informal agreements rather

than structured regulatory frameworks. This raises ethical concerns, as these networks tend to bypass formal compliance mechanisms. Additionally, 19.44% of respondents indicated that ethical trade-offs occur frequently, where economic or business interests outweigh formal ethical considerations. This reflects a broader challenge where market dynamics are shaped more by social structures than by institutional policies.

Cultural and Community Influence

The most dominant factor identified in the study is the cultural and community influence on ethical marketing. 25% of respondents emphasized that word-of-mouth recommendations, cultural expectations, and local traditions play a decisive role in marketing practices. In rural regions, marketing success is less about regulatory compliance and more about social credibility. Businesses that integrate well into local cultural values are more likely to gain consumer trust, even if they do not adhere strictly to ethical standards. This insight underscores the importance of cultural adaptation strategies in business ethics discussions.

Traditional Marketing Strategies & Incentive-Driven Deals

Approximately 13.89% of respondents highlighted the role of traditional and incentive-driven marketing in shaping biomedical product promotion. Many businesses prefer to use long-established networking channels rather than standard ethical advertising techniques. In some cases, extra incentives or unofficial agreements between suppliers and healthcare providers influence product selection, raising concerns about fair competition and transparency. This finding suggests that monetary and social incentives often override ethical marketing regulations, making enforcement difficult.

Regulatory Barriers and Compliance Issues

Although regulatory compliance is an essential component of ethical marketing, only 5.56% of respondents explicitly mentioned regulatory barriers as a significant challenge. This suggests that formal ethical guidelines are not deeply embedded in the local business ecosystem. Businesses

in Gilgit-Baltistan often operate outside strict regulatory frameworks, making it challenging for authorities to implement ethical marketing policies effectively. This aligns with broader concerns about the weak institutional oversight in rural economies, where formal regulations exist but are not strictly enforced.

Overall Discussion

The findings of this study highlight a fundamental disconnect between formal ethical marketing practices and socio-cultural realities in Gilgit-Baltistan. The biomedical sector, like many other industries in the region, relies heavily on informal relationships, community influence, and trust-based networks. These factors significantly shape consumer behavior and business decisions, often superseding ethical guidelines.

A major implication of this study is that ethical marketing frameworks in rural and culturally embedded economies must be tailored to local realities. Simply enforcing universal ethical standards may not be effective unless they integrate socio-cultural values. Policymakers and business leaders need to balance cultural norms with ethical best practices, ensuring that marketing strategies are both ethical and socially acceptable.

Additionally, strengthening regulatory oversight and promoting awareness of ethical marketing principles among business stakeholders could help reduce reliance on informal networks. However, this requires collaborative efforts between policymakers, businesses, and community leaders to create a more transparent and ethically sustainable marketing environment.

Conclusion

This research provides valuable insights into the socio-cultural influences on ethical marketing in the biomedical industry of Gilgit-Baltistan. The dominance of trust-based relationships, informal business networks, and cultural influence suggests that ethical compliance is often compromised in favor of social and economic relationships. Addressing these challenges requires a contextualized approach to ethical marketing—one that respects local business practices while promoting transparency and accountability. Future research could further explore policy interventions and practical frameworks to bridge the gap between cultural business norms and ethical marketing compliance in rural economies.

References

1. Borghi S. *Factors Influencing Adoption of Business Intelligence and Analytics for Biomedical Device Data: A Quantitative Study*. Capella University; 2022.
2. Brody BA. *The ethics of biomedical research: an international perspective*. Oxford University Press, USA; 1998.
3. Hussain T, Wang D, Li B. Psychological resilience in athletes during the COVID-19 pandemic: A qualitative insight. *Acta Psychologica* 2023; 240: 104050.
4. Bélisle-Pipon J-C. Pharmaceutical marketing ethics: Ethical standards for more acceptable practices. *Journal of Global Marketing*. 2022; 35(1): 76-98.
5. Leong WY, Leong YZ, San Leong W, editors. Human-machine interaction in biomedical manufacturing. *2023 IEEE 5th Eurasia Conference on IOT, Communication and Engineering (ECICE)*. IEEE; 2023.
6. Qian J, Cao F. Contract Governance, Uncertainty, and Project Performance: Evidence from Water Environment Public-Private Partnerships of China. *Journal of Comprehensive Business Administration Research* 2024; 1(2): 84-92.
7. Monteiro EC, Summers R. Metrological requirements for biomedical device assessment and their ethical implications. *Measurement: Sensors* 2022; 24: 100574.
8. Van Campen LE, Poplazarova T, Therasse DG, Turik M, Fortson BBWGAKARCCCKNSW. Considerations for applying bioethics norms to a biopharmaceutical industry setting. *BMC Medical Ethics* 2021; 22: 1-11.
9. Zhang H, Xia B, Li Q, Wang X. The effect of self-enhancement motivation and political skill on the relationship between workplace exclusion and ingratiation. *Current Psychology* 2025:1-14.

10. Slivšek G, Mijač S, Brstilo-Čičković M, Brstilo N, Karić M, Lončarek K, et al. Bioethics in Sport. *Slovenian Medical Journal* 2024; 93(7-8): 260-71.
11. Malik S, Tandon N. Analysis of Factors Affecting Purchase of Dietary Supplements. *Journal of Comprehensive Business Administration Research* 2024. <https://doi.org/10.47852/bonviewJCBAR42022081>
12. Irfan M. Assessing Consumers' Behavioral Intention and Willingness to Pay for Electric Vehicles: An Evidence from China. *Journal of Comprehensive Business Administration Research* 2024; 1(1): 2-11.
13. Chang W, Zeng Q, Zhou B. Association of education level with mortality in United States-A cross-sectional study. *Acta Psychologica* 2025; 253: 104774.
14. Hong Q, Jiao X, Qiu X, Xu A. Investigating the impact of time allocation on family well-being in China. *Journal of Business Economics and Management* 2024; 25(5): 981-1005.
15. Hu F, Yang H, Qiu L, Wei S, Hu H, Zhou H. Spatial structure and organization of the medical device industry urban network in China: evidence from Specialized, Refined, Distinctive, and Innovative firms. *Frontiers in Public Health* 2025; 13: 1518327.
16. Gao H, Li R, Shen J, Yang H. Children's gender and parents' long-term care arrangements: Evidence from China. *Applied Economics* 2024: 1-16.
17. Qiao G, Chen H, Li G, Liu H, Wang X. The role of filial piety in filial tourism: an intergenerational analysis of decision-making. *Asia Pacific Journal of Tourism Research* 2024; 29(8): 1017-31.
18. Li Y-K, Xiao C-L, Ren H, Li W-R, Guo Z, Luo J-Q. Unraveling the effectiveness of new media teaching strategies in pharmacology education under different educational backgrounds: Insights from 6447 students. *European Journal of Pharmacology* 2025; 989: 177255.
19. Li H, Jiang Y, Wang Y, Lv H, Xie H, Yang G, et al. The effects of warfarin on the pharmacokinetics of senkyunolide I in a rat model of biliary drainage after administration of Chuanxiong. *Frontiers in Pharmacology* 2018; 9: 1461.
20. Lin S, Lou Y, Hao R, Shao Y, Yu J, Fang L, et al. A single-dose, randomized, open-label, four-period, crossover equivalence trial comparing the clinical similarity of the proposed biosimilar rupatadine fumarate to reference Wystamm® in healthy Chinese subjects. *Frontiers in Pharmacology* 2024; 15: 1328142.
21. Chen L, Liu J, Qiu W, Han M. The impact of paternalistic leadership styles on employee engagement in the pharmaceutical distribution industry: the mediating role of psychological capital. *J Chin Hum Resou Ma* 2023; 14(2): 3-22.
22. Hussain T, Wang D. Social media and the spiritual journey: The place of digital technology in enriching the experience. *Religions* 2024; 15(5): 616.
23. Bingham AJ. From data management to actionable findings: A five-phase process of qualitative data analysis. *International journal of qualitative methods* 2023; 22: 16094069231183620.
24. Islam MA, Aldaihani FME. Justification for adopting qualitative research method, research approaches, sampling strategy, sample size, interview method, saturation, and data analysis. *Journal of International Business and Management* 2022; 5(1): 01-11.
25. Khoa BT, Hung BP, Hejsalem-Brahmi M. Qualitative research in social sciences: data collection, data analysis and report writing. *International Journal of Public Sector Performance Management* 2023; 12(1-2): 187-209.
26. Christou PA. How to use thematic analysis in qualitative research. *Journal of Qualitative Research in Tourism* 2022; 3(2): 79-95.
27. Coleman P. Validity and reliability within qualitative research for the caring sciences. *International Journal of Caring Sciences* 2022; 14(3): 2041-5.

Received: March 18, 2025

Accepted: April 16, 2025

Table 1 Response for Q 1-Regulatory Frameworks

Respondent No.	Response	Thematic Code
1	I believe regulations exist, but enforcement is weak, leading to frequent ethical violations.	Weak Regulatory Enforcement
2	We follow the basic guidelines, but there is no strict monitoring, so some companies exploit loopholes.	Lack of Oversight
3	Our business tries to comply, but competitors use unethical marketing because authorities rarely intervene.	Unfair Competition
4	I see that local authorities are not well-trained to monitor ethical marketing practices.	Regulatory Inefficiency
5	We have no proper awareness of marketing ethics because regulatory guidelines are unclear.	Lack of Awareness
6	I think regulations exist only on paper, but in practice, there is no serious enforcement.	Paper-Only Regulations
7	We are forced to use aggressive marketing since there are no penalties for misleading claims.	Lack of Penalties
8	Our sales team struggles because unregulated competitors use false promises to attract customers.	Misleading Marketing
9	I feel there is a need for stricter rules to prevent unethical product promotion.	Need for Stricter Laws
10	We sometimes face ethical dilemmas because the rules are vague and open to interpretation.	Ambiguous Regulations
11	I rarely see regulators checking whether companies follow ethical marketing rules.	Minimal Inspections
12	Our region lacks proper consumer protection laws, so misleading marketing continues.	Weak Consumer Protection
13	I think authorities should impose strict fines on those who violate ethical marketing guidelines.	Need for Penalties
14	We try to be ethical, but without strict enforcement, many companies prioritize profit over ethics.	Profit Over Ethics
15	I believe regulators need more resources to monitor biomedical marketing effectively.	Resource Constraints
16	We have faced no audits in years, which makes unethical practices easy to continue.	Lack of Audits
17	I have seen fake or substandard biomedical products marketed due to poor regulations.	Presence of Fake Products
18	We often see companies bribing officials to bypass ethical marketing rules.	Corruption in Regulation
19	I feel that ethical marketing is difficult in a system where rules are not enforced fairly.	Unequal Enforcement
20	We struggle to maintain ethical marketing because competitors use unethical methods freely.	Competitive Pressure
21	I think rural markets are ignored when it comes to enforcing ethical regulations.	Regulatory Neglect
22	We need regulatory bodies to conduct regular awareness sessions about ethical marketing.	Need for Training
23	I notice that companies using unethical tactics are rarely held accountable.	Lack of Accountability
24	Our marketing team lacks proper ethical marketing training due to no formal industry guidelines.	Need for Ethical Training
25	I think implementing digital tracking systems can help regulate marketing ethics better.	Need for Digital Monitoring
26	We are unaware of any existing penalties for violating marketing ethics.	Unclear Legal Consequences
27	I feel that many regulations are outdated and do not reflect current market practices.	Outdated Policies
28	We try to follow ethical marketing, but loopholes in policies allow others to bypass rules.	Policy Loopholes
29	I have never been approached by a regulatory officer regarding our marketing practices.	No Active Monitoring
30	We sometimes lose customers because others use unethical tactics without consequences.	Ethical Business Disadvantage
31	I see foreign biomedical companies exploiting weak regulations to market products without oversight.	Exploitation by Foreign Firms
32	Our company has ethical marketing policies, but there is no incentive to follow them.	Lack of Ethical Incentives
33	I think an independent body should oversee ethical marketing instead of government agencies alone.	Need for Independent Oversight
34	We need stricter import regulations to prevent substandard biomedical products from entering the market.	Need for Import Control
35	I feel rural consumers are the most affected by unethical marketing due to lack of awareness.	Consumer Vulnerability
36	We must promote self-regulation in the industry if external enforcement remains weak.	Self-Regulation Need

Table 2 Distribution of Sub-Thematic Codes Under Key Representative Words and Percentage

Sub-Thematic Main Key Codes	Respondent Numbers	Freq.	Total	Percentage
Regulatory Weakness	1, 6, 11, 15, 16, 21, 29	7	7	19.44%
Weak Regulatory Enforcement	1	1		
Paper-Only Regulations	6	1		
Minimal Inspections	11	1		
Resource Constraints	15	1		
Lack of Audits	16	1		
Regulatory Neglect	21	1		

No Active Monitoring	29	1		
Lack of Oversight	2, 4, 7, 10, 18, 19, 23	7	7	19.44%
Lack of Oversight	2	1		
Regulatory Inefficiency	4	1		
Lack of Penalties	7	1		
Ambiguous Regulations	10	1		
Corruption in Regulation	18	1		
Unequal Enforcement	19	1		
Lack of Accountability	23	1		
Consumer Protection Issues	5, 12, 17, 26, 27, 35	6	6	16.67%
Lack of Awareness	5	1		
Weak Consumer Protection	12	1		
Presence of Fake Products	17	1		
Unclear Legal Consequences	26	1		
Outdated Policies	27	1		
Consumer Vulnerability	35	1		
Ethical Business Challenges	8, 14, 30, 32, 36	5	5	13.89%
Misleading Marketing	8	1		
Profit Over Ethics	14	1		
Ethical Business Disadvantage	30	1		
Lack of Ethical Incentives	32	1		
Self-Regulation Need	36	1		
Competitive Pressure	3, 9, 20, 28	4	4	11.11%
Unfair Competition	3	1		
Need for Stricter Laws	9	1		
Competitive Pressure	20	1		
Policy Loopholes	28	1		
Need for Policy Reforms	13, 25, 31, 33, 34	5	5	13.89%
Need for Penalties	13	1		
Need for Digital Monitoring	25	1		
Exploitation by Foreign Firms	31	1		
Need for Independent Oversight	33	1		
Need for Import Control	34	1		
Training and Awareness Gaps	22, 24	2	2	5.56%
Need for Training	22	1		
Need for Ethical Training	24	1		

Table 3 Responses on market competition and ethical decision making

Respondent Number	Response	Thematic Code
1	I sometimes feel pressured to lower prices, even if it affects product quality.	Price Pressure
2	We have to exaggerate product benefits to compete with others in the market.	Misleading Marketing
3	Our competitors use aggressive sales tactics, forcing us to do the same.	Competitive Pressure
4	I find it difficult to maintain ethical standards when others cut corners.	Ethical Dilemma
5	We struggle because unethical competitors offer cheaper, substandard products.	Unfair Competition
6	I have seen misleading advertising used just to attract more buyers.	Deceptive Advertising
7	We sometimes have to give financial incentives to doctors to promote our products.	Bribery in Marketing
8	I feel that ethical marketing is a disadvantage when competitors do not follow rules.	Ethical Disadvantage
9	Our company faces challenges because fake products are easily available in the market.	Market Fraud
10	I try to stay ethical, but the pressure to match competitors' prices is intense.	Competitive Ethics Struggle
11	We have to offer discounts beyond our profit margin to retain customers.	Unsustainable Pricing
12	I have seen unethical competitors influencing healthcare professionals unfairly.	Unethical Influence
13	We struggle to maintain trust when competitors use deceptive marketing.	Trust Issues
14	I sometimes worry that ethical practices slow down our sales growth.	Ethical vs. Profitability
15	We need stricter regulations to stop unethical competitive practices.	Need for Regulation
16	I have observed competitors making false claims about product effectiveness.	False Product Claims
17	Our company finds it hard to survive when illegal imports flood the market.	Illegal Market Competition
18	I feel that price wars affect product quality and ethical decision-making.	Price Wars
19	We are forced to compromise on marketing ethics to keep up with competition.	Ethics Compromise
20	I believe that strong branding helps in ethical marketing despite competition.	Ethical Branding
21	Our firm follows ethical guidelines, but we lose customers to cheaper alternatives.	Ethical Business Challenge
22	I think the lack of enforcement allows unethical marketers to dominate the industry.	Regulatory Weakness
23	We face difficulty in promoting ethical products when misinformation spreads easily.	Misinformation
24	I notice that companies without proper licenses are selling biomedical products.	Unlicensed Market Players

25	We often have to adjust our strategies to compete with unethical marketing tactics.	Strategic Adjustments
26	I think ethical decision-making in marketing needs more awareness and training.	Need for Ethical Training
27	I have seen competitors using fake certifications to gain customer trust.	Fake Certifications
28	We face difficulty when customers are unaware of the ethical standards of products.	Consumer Awareness Gaps
29	The lack of price control policies affects fair competition and ethical sales.	Price Control Issues
30	I feel that large firms dominate the market, leaving no space for ethical businesses.	Market Dominance
31	We need industry-wide ethical guidelines to ensure fair competition.	Need for Ethical Guidelines
32	I have seen unethical competitors bribing regulatory authorities.	Corruption in Regulation
33	Customers often choose cheaper, low-quality products due to financial constraints.	Economic Constraints
34	We need consumer education programs to encourage ethical purchasing choices.	Consumer Education
35	I believe that government subsidies for ethical companies could promote fairness.	Need for Government Support
36	Our marketing strategies must adapt continuously due to unethical competitive moves.	Marketing Adaptation

Table 4 Distribution of Sub-Thematic Codes Under Key Representative Words- Market Competition

Sub-Thematic Main Key Codes	Respondent Numbers	Freq.	
Competitive Pressure	3, 5, 10, 19, 25, 36	6	16.67%
Competitive Pressure	3	1	
Unfair Competition	5	1	
Competitive Ethics Struggle	10	1	
Ethics Compromise	19	1	
Strategic Adjustments	25	1	
Marketing Adaptation	36	1	
Deceptive Marketing Practices	2, 6, 12, 13, 16, 27	6	16.67 %
Misleading Marketing	2	1	
Deceptive Advertising	6	1	
Unethical Influence	12	1	
Trust Issues	13	1	
False Product Claims	16	1	
Fake Certifications	27	1	
Regulatory Weakness	15, 17, 22, 24, 32	5	13.89 %
Need for Regulation	15	1	
Illegal Market Competition	17	1	
Regulatory Weakness	22	1	
Unlicensed Market Players	24	1	
Corruption in Regulation	32	1	
Economic Constraints	20, 30, 33	3	8.33 %
Ethical Branding	20	1	
Market Dominance	30	1	
Economic Constraints	33	1	
Consumer Awareness & Education	23, 26, 28, 34	4	11.11 %
Misinformation	23	1	
Need for Ethical Training	26	1	
Consumer Awareness Gaps	28	1	
Consumer Education	34	1	
Bribery & Unethical Influence	7, 9, 14	3	8.33 %
Bribery in Marketing	7	1	
Market Fraud	9	1	
Ethical vs. Profitability	14	1	
Ethical Business Challenges	4, 8, 21	3	8.33 %
Ethical Dilemma	4	1	
Ethical Disadvantage	8	1	
Ethical Business Challenge	21	1	
Market Competition & Pricing	1, 11, 18, 29	4	11.11 %
Price Pressure	1	1	
Unsustainable Pricing	11	1	
Price Wars	18	1	
Price Control Issues	29	1	
Need for Policy Reforms	31, 35	2	5.56%
Need for Ethical Guidelines	31	1	
Need for Government Support	35	1	

Table 5 Consumer Awareness

Respondent Number	Response	Thematic Word	Key
1	I have noticed that many healthcare providers lack proper knowledge about biomedical product regulations.	Knowledge Gap	
2	We struggle to market ethical products because consumers do not understand the importance of quality and safety.	Consumer Understanding	
3	I feel that low awareness among doctors leads to them recommending substandard products.	Physician Awareness	
4	We face challenges because healthcare providers often do not verify product authenticity before prescribing.	Verification Issues	
5	Our company has difficulty promoting ethical marketing when consumers do not differentiate between genuine and fake products.	Product Differentiation	
6	I have observed that many healthcare providers are unaware of the latest biomedical marketing ethical standards.	Ethical Standards Awareness	
7	We sometimes have to spend extra resources on educating both doctors and consumers about ethical product use.	Educational Efforts	
8	I think the lack of awareness allows unethical marketers to manipulate healthcare providers.	Unethical Influence	
9	Our marketing strategies need to include awareness campaigns to ensure compliance with ethical guidelines.	Awareness Campaigns	
10	I feel that informed healthcare providers are more likely to comply with ethical marketing regulations.	Informed Decision-Making	
11	We often struggle to convince consumers about the risks of counterfeit biomedical products.	Counterfeit Risk	
12	I believe that ethical compliance improves when awareness programs are implemented in hospitals and clinics.	Hospital Training	
13	Consumers rarely ask about the certifications or approval status of biomedical products.	Consumer Negligence	
14	Our ethical marketing efforts are not effective because most customers prioritize price over quality.	Price Over Quality	
15	I have seen unethical marketers take advantage of the lack of awareness to sell unapproved products.	Exploitation of Ignorance	
16	We need government-backed awareness initiatives to educate consumers and healthcare providers.	Need for Public Awareness	
17	I feel that many patients blindly trust doctors without questioning the quality of prescribed biomedical products.	Patient Trust Issues	
18	Our competitors often mislead customers who are unaware of the importance of ethical compliance.	Misleading Information	
19	We conduct workshops for doctors, but many still lack interest in ethical compliance.	Lack of Interest	
20	I have noticed that ethical compliance improves when hospitals enforce strict guidelines on product selection.	Institutional Enforcement	
21	Consumers need more awareness regarding the potential harm of non-compliant biomedical products.	Consumer Safety Awareness	
22	I feel that regulatory bodies should increase efforts to educate doctors and patients about biomedical product safety.	Regulatory Role	
23	We struggle to maintain ethical compliance when misinformation spreads faster than facts.	Misinformation	
24	I have seen cases where healthcare providers unknowingly promote non-ethical biomedical products.	Unintentional Promotion	
25	I believe training programs should be mandatory for healthcare providers to ensure ethical marketing compliance.	Training Necessity	
26	Our company invests in awareness, but low consumer knowledge still affects ethical sales.	Low Consumer Knowledge	
27	I feel that ethical compliance is easier to achieve when doctors and consumers are well-informed.	Awareness Impact	
28	We need more media campaigns to educate the public about ethical biomedical marketing.	Media Awareness	
29	Many consumers do not check product authenticity because they lack basic knowledge of certifications.	Certification Ignorance	
30	I have observed that higher awareness leads to better scrutiny of biomedical product marketing claims.	Ethical Scrutiny	
31	We need standardized ethical marketing awareness programs across all hospitals and clinics.	Standardized Awareness	
32	I think a lack of knowledge about ethical marketing creates room for exploitation by unethical marketers.	Ethical Exploitation	
33	Many healthcare providers follow what their peers do without verifying ethical compliance.	Peer Influence	
34	Our company has seen that ethical marketing success depends on how much awareness exists in the market.	Market Awareness	
35	I believe that proper ethical training for healthcare providers can significantly reduce unethical marketing practices.	Ethical Training	
36	We need stronger collaborations between healthcare institutions and regulatory bodies to improve awareness.	Collaborative Efforts	

Table 6 Statistical Analysis of Awareness and Ethical Compliance in Biomedical Product Marketing

Sub-Thematic Main Key Codes	Respondent Numbers	Freq.	%
Healthcare Provider Awareness	1, 3, 4, 6, 19, 33	6	16.67%
Knowledge Gap	1	1	
Physician Awareness	3	1	
Verification Issues	4	1	
Ethical Standards Awareness	6	1	
Lack of Interest	19	1	
Peer Influence	33	1	
Consumer Knowledge and Understanding	2, 5, 11, 13, 21, 26, 29	7	19.44%
Consumer Understanding	2	1	
Product Differentiation	5	1	
Counterfeit Risk	11	1	
Consumer Negligence	13	1	
Consumer Safety Awareness	21	1	
Low Consumer Knowledge	26	1	
Certification Ignorance	29	1	
Ethical Compliance Challenges	8, 15, 18, 23, 24, 32	6	16.67%
Unethical Influence	8	1	
Exploitation of Ignorance	15	1	
Misleading Information	18	1	
Misinformation	23	1	
Unintentional Promotion	24	1	
Ethical Exploitation	32	1	
Regulatory and Institutional Role	16, 20, 22, 25, 31, 36	6	16.67%
Need for Public Awareness	16	1	
Institutional Enforcement	20	1	
Regulatory Role	22	1	
Training Necessity	25	1	
Standardized Awareness	31	1	
Collaborative Efforts	36	1	
Educational and Awareness Efforts	7, 9, 12, 28, 34, 35	6	16.67%
Educational Efforts	7	1	
Awareness Campaigns	9	1	
Hospital Training	12	1	
Media Awareness	28	1	
Market Awareness	34	1	
Ethical Training	35	1	
Impact of Awareness on Ethical Decision-Making	10, 14, 17, 27, 30	5	13.89%
Informed Decision-Making	10	1	
Price Over Quality	14	1	
Patient Trust Issues	17	1	
Awareness Impact	27	1	
Ethical Scrutiny	30	1	

Table 7 Responses on Socio-Cultural Factors and Informal Business Networks Shaping Ethical Marketing Practices

Respondent Number	Response	Thematic Key Word
1	I have observed that traditional trust-based relationships influence how biomedical products are marketed in our region.	Trust-Based Marketing
2	We often rely on informal business networks to promote products, which sometimes bypass ethical marketing standards.	Informal Business Networks
3	In our community, word-of-mouth recommendations hold more value than formal marketing, affecting ethical compliance.	Word-of-Mouth Influence
4	Many healthcare providers in our region prefer dealing with suppliers they have personal ties with, even if ethical concerns exist.	Personal Business Ties
5	We struggle with ethical marketing because local socio-cultural norms sometimes prioritize relationships over regulations.	Cultural Norms vs. Regulations
6	I feel that informal agreements between distributors and healthcare providers often dictate marketing practices more than policies.	Informal Agreements
7	Local business groups sometimes resist formal ethical marketing guidelines, making compliance difficult.	Resistance to Regulations
8	Our marketing strategies must align with cultural values, but this can sometimes conflict with ethical guidelines.	Cultural Adaptation

9	In rural areas, biomedical product marketing relies heavily on community referrals rather than standard ethical advertising.	Community Influence
10	We see that family-owned businesses in the healthcare sector tend to operate with their own informal ethical standards.	Family Business Influence
11	I think local business customs encourage flexibility in marketing, but this can lead to ethical grey areas.	Business Customs
12	In Gilgit-Baltistan, personal favors between suppliers and doctors can sometimes overshadow ethical considerations.	Favor-Based Dealings
13	We have faced cases where loyalty to a certain supplier leads to biased product recommendations.	Supplier Loyalty
14	Many healthcare businesses hesitate to adopt strict ethical guidelines because informal business networks dominate decision-making.	Informal Control
15	I feel that ethical marketing practices suffer because personal relationships often take precedence over transparency.	Relationship-Driven Marketing
16	We notice that biomedical companies must establish strong social ties before they can successfully market their products here.	Social Ties in Business
17	Our experience shows that marketing success is closely linked to how well a company integrates into local cultural practices.	Cultural Integration
18	The lack of formal oversight allows informal business networks to influence which biomedical products are promoted.	Lack of Oversight
19	I think community leaders play a crucial role in shaping the ethical marketing landscape of biomedical products.	Role of Community Leaders
20	Ethical concerns often take a backseat when informal business relationships dictate product recommendations.	Ethical Trade-offs
21	We find that informal negotiations sometimes override the need for formal compliance in marketing.	Informal Negotiations
22	Many businesses prefer using traditional networking over ethical advertising to build consumer trust.	Traditional Networking
23	In our market, trust in personal connections often replaces reliance on product certifications.	Trust Over Certification
24	Some local suppliers take advantage of informal business networks to avoid following ethical marketing rules.	Ethical Loopholes
25	We have observed that local traders prefer working with known contacts, regardless of ethical considerations.	Preference for Familiarity
26	The informal nature of transactions makes it harder to enforce ethical marketing regulations.	Transaction Informality
27	I believe informal business groups have significant power in shaping the marketing landscape of biomedical products.	Business Group Influence
28	Cultural expectations often dictate how aggressively or ethically a biomedical product is marketed.	Cultural Expectations
29	Marketing success in our region depends on social credibility rather than strict adherence to ethical standards.	Social Credibility
30	Personal networking plays a bigger role than regulatory compliance when introducing new biomedical products.	Personal Networking
31	Ethical marketing policies often remain ineffective because informal business networks hold more influence.	Weak Policy Enforcement
32	Some suppliers offer extra incentives through informal channels, making ethical compliance challenging.	Incentive-Based Marketing
33	Doctors and suppliers often engage in unofficial partnerships, shaping the marketing of biomedical products.	Unofficial Partnerships
34	We see that ethical marketing practices are harder to enforce when businesses operate primarily within close-knit social circles.	Close-Knit Business Circles
35	Local entrepreneurs sometimes adjust their marketing approach based on community preferences rather than ethical considerations.	Community-Driven Marketing
36	There is a need for balancing cultural business practices with formal ethical marketing guidelines.	Balance Between Culture & Ethics

Table 8 Sub-Thematic Main Key Codes for Q 4

Sub-Thematic Main Key Codes	Respondent Numbers	Freq.	%
Trust-Based Marketing & Relationships	1, 4, 12, 13, 15, 23, 25	7	19.44%
Informal Business Networks & Influence	2, 6, 14, 18, 21, 27	6	16.67 %
Cultural & Community Influence	3, 5, 8, 9, 16, 17, 28, 29, 35	9	25 %
Ethical Challenges & Trade-offs	10, 19, 20, 25, 32, 33, 36	7	19.44 %
Traditional & Incentive-Driven Marketing	11, 22, 26, 31, 34	5	13.89 %
Regulatory Barriers & Compliance Issues	7, 30	2	5.56 %