Targeted marketing strategies in the parmaceutical industry : the role of digital marketing in reaching diverse audiences

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Targeted Marketing Strategies in the Pharmaceutical Industry: The Role of Digital Marketing in Reaching Diverse Audiences

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Abbreviation

EMA	the European Medicines Agency
FDA	Food and Drug Administration
GDPR	Regulations like the General Data Protection Regulation
HCPs	Healthcare professional
HIPAA	Health Insurance Portability and Accountability Act
KOL	Key opinion leaders
MHRA	Medicines and Healthcare Products Regulatory Agency
OTC	Over the counter
PEOU	Perceived Ease of Use
Rx	Prescription-only
TAM	Technology Acceptance Model
WHO	World Health Organization

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Chapter 1: Introduction

I.   Background

The Over the counter (OTC) medications are a category of drugs available for purchase without a prescription and are typically used to treat common health conditions (e.g., painkillers, antacids, dietary supplements…). This sector of the pharmaceutical industry has experienced remarkable growth in recent years, driven mainly by increasing consumer autonomy, the rise of self-care behaviours and broader public access to health-related information. The shift has been especially prominent following global events such as the COVID-19 pandemic, which significantly changed how individuals interact with healthcare products, services, and professionals. (Zafar et al, 2025). Consumers today expect convenient and on-demand solutions and not just expect purchasing medicines but also focus on acquiring credible information about them. In this current environment where traditional marketing approaches rely heavily on in-person detailing and print advertising, an increasingly prominent challenge is the limitations in their ability to reach diverse stakeholders efficiently and responsively. From a historic perspective pharmaceutical marketing was designed with a physician-centric mindset and under the assumption that doctors were the principal decision-makers in prescribing and recommending both prescription-only (Rx) and OTC drugs (Lasota et al, 2022). However in the OTC segment consumers are seen to play a more direct role in decision-making that has created a dynamic of a multi-stakeholder environment where doctors, pharmacists, and patients each interact with health information and marketing content in unique and personalized ways. Examples of this include how pharmacists are often the final point of contact before a consumer purchases an OTC product and can heavily

influence brand choice. Meanwhile patients now turn to digital platforms, social media and peer-reviewed content prior to even physically visiting the stores (Lasota et al, 2022).

The pharmaceutical industry has begun to respond to this shift by experimenting with digital and indirect marketing channels through various strategies such as content marketing, SEO-driven (Search Engine Optimization) campaigns, virtual events, health-focused mobile applications combined with social media advertising. Indirect strategies may also include the use of key opinion leaders (KOLs), health influencers, branded wellness content along with educational collaborations with healthcare professionals (HCPs) (Zafar et al, 2025). These methods provide value without overtly promoting a product which is an essential requirement in many regulatory contexts. Despite the success of various strategies understanding of how digital and indirect marketing strategies can be used to complement traditional marketing approaches especially in the OTC space that remains under-researched (Zafar et al, 2025). There is also limited academic exploration into how these strategies specifically resonate with each stakeholder group such as doctors, pharmacists and patients since each group requires a different type of messaging and channel engagement. The master thesis investigates how these stakeholder-centric marketing approaches can be designed and integrated to enhance brand trust, improve knowledge dissemination and influence purchasing or recommendation behaviors within the OTC segment (Wei and Liu, 2025).

II.   *Research Problem*

Despite the pharmaceutical industry's gradual adoption of digital and indirect marketing strategies there is still a presence of various challenges. Firstly, existing marketing practices often fail to reflect the diverse informational and emotional needs of all stakeholder groups specifically in a regulatory environment where direct advertising of pharmaceutical products is heavily restricted in many regions. Secondly the lack of

tailored communication often leads to missed opportunities for engagement for example when pharmacists may not receive adequate product education beyond what is available in standard brochures or occasional product visits. Third doctors may not be adequately informed about new OTC product developments if they do not actively seek such information. Lastly patients also suffer from challenges of generic and misleading online content that leaves them unsure of the credibility of what they read.

In addition to this, there are also other challenges such as how traditional marketing techniques such as face-to-face detailing, printed leaflets as well as trade show attendance continue to dominate the OTC pharmaceutical marketing landscape. Although these approaches have their benefits, they are often not scalable, time-efficient or easily customizable to cater to the dynamic as well as globally widespread needs of modern audiences. Moreover, they are typically product-centric rather than user- or solution-centric which indicates why there is a need for marketing approaches that align with the principles of customer and patient centricity that can be defined as a philosophy which prioritizes stakeholder engagement, trust, and empowerment. Adding complexity to this problem is the limited empirical research into how digital and indirect strategies are perceived by pharmacists and physicians that often misperceived and identified as a single group in pharmaceutical marketing plans. As a result, one of the main challenges arises due to the fact that these two groups which have distinct workflows, concerns and informational priorities are not addressed separately in marketing strategies. Furthermore, there is insufficient research exploring how patients interpret and respond to digital marketing efforts in the OTC space specifically when compared to Rx drugs or consumer health products in a broader context.

This gap becomes more problematic as consumer empowerment continues to grow since patients today make healthcare decisions based not only on professional

advice but also strongly take into account of the information found online, peer reviews and social media platforms. In a scenario where pharmaceutical companies fail to adapt to this change, they risk losing relevance and market share to more agile and tech-savvy competitors including wellness brands and supplement companies which effectively use digital media to influence consumer behavior. Thus, the core research problem this study addresses is related to how can digital and indirect marketing strategies be optimized to complement traditional methods and effectively engage pharmacists, doctors as well as patients in the OTC pharmaceutical sector.

III.   Research Questions

To address the problem outlined above the current study is guided the broader research question: "How do pharmacists, doctors and patients perceive digital and indirect marketing strategies used by OTC pharmaceutical brands?".

This broader research question can be further divided into the following sub-questions:

- What types of digital or indirect marketing content are most effective in building trust, engagement and decision-making among these stakeholder groups?

- How do digital and indirect strategies complement or fall short of traditional marketing methods in the context of OTC product promotion?

- What are the key considerations for developing stakeholder-specific marketing strategies that align with customer and patient-centric values in the OTC pharmaceutical sector?

IV.   Aim of the Study

The primary aim of this study is to explore the role of digital and indirect marketing strategies within the OTC pharmaceutical industry, with a focus on how these approaches engage pharmacists, doctors, and patients. Using a qualitative inquiry

approach, the research seeks to examine stakeholder-specific expectations, challenges, and preferences related to these marketing methods. The study will also consider how digital and indirect strategies interact with traditional pharmaceutical marketing techniques within the context of evolving communication practices in healthcare.

V.   *Significance of the Study*

This research holds significant value for both academic and practical audiences. From a theoretical perspective the study contributes to a growing body of literature on stakeholder-specific pharmaceutical marketing that is an area that remains underdeveloped compared to general healthcare marketing or consumer behavior studies. Along with this the fact that existing research either focuses on Rx drugs or adopts a fixed view of stakeholders. Through analysing perspectives and experiences of pharmacists, doctors and patients the study targets to bring nuance to how marketing strategies can be better tailored and optimized in the OTC context.

From a practical perspective the study provides actionable insights for pharmaceutical marketers, brand managers and health communication specialists. In an increasingly regulated and competitive OTC market understanding how to leverage non-traditional marketing approaches is essential. Based on this the current research will offer concrete recommendations on content types, delivery channels as well as tone of messaging that resonate with each stakeholder group that helps brands improve their trustworthiness, visibility and patient engagement.

Moreover this study aligns with broader public health goals by advocating for accurate, accessible and stakeholder-specific information dissemination. When pharmacists are better informed, they provide higher-quality advice when doctors understand new OTC developments where they are more likely to recommend suitable

options. Specifically, when patients have access to reliable digital content, they make safer and more informed choices and the effects of such targeted communication strategies extend beyond brand loyalty since they impact health outcomes, medication adherence as well as the overall patient journey.

Finally, this research is relevant since consumer behaviour continues to evolve in the digital age and therefore pharmaceutical companies must not only reconsider what they communicate, but also how they communicate, to whom, and through which channels. The findings of this study will contribute to the ongoing transformation of the OTC pharmaceutical marketing landscape, enabling more inclusive, ethical, and effective engagement with the people who matter most those who prescribe, recommend, and ultimately use these products.

VI.   Theoretical Framework

The Technology Acceptance Model (TAM) as developed by Fred Davis serves as a foundational theoretical framework for understanding how individuals come to accept and use new technologies. The model is essential as it takes into account of primary factors of perceived usefulness (the degree to which a person believes that using a particular technology will enhance their performance) and perceived ease of use (the degree to which a person believes that using the technology will be free of effort) largely determine users' acceptance behavior (Ezeudoka and Fan, 2024). In the context of the current study TAM is particularly suitable because it offers a structured lens through which to explore how various stakeholders in the pharmaceutical sector namely pharmacists, doctors, and patients engage with digital and indirect marketing tools in contrast to more traditional as well as in-person medical marketing methods such as sales representative visits or printed advertisements. Through applying TAM Model the study can effectively examine the extent to which healthcare professionals and consumers

perceive digital marketing platforms (examples social media campaigns, email promotions, online pharmaceutical content) as beneficial and user-friendly (Ezeudoka and Fan, 2024). This is especially relevant in a rapidly evolving healthcare landscape where digital communication is increasingly replacing or supplementing traditional face-to-face interactions. Examples include cases where pharmacists find online detailing tools more convenient and efficient than in-person visits from pharmaceutical representatives, or when patients consider health influencers and mobile apps easier to access and more helpful than traditional consultations. These perceptions can influence the broader adoption of digital marketing in the OTC pharmaceutical sector. Furthermore, TAM's emphasis on individual-level cognitive responses makes it a strong fit for a qualitative study aimed at understanding personal experiences and perceptions rather than just behavioral outcomes since it enables the research to go beyond identifying which platforms or strategies are used, and instead explore why certain stakeholders prefer specific approaches, what barriers they encounter, and how trust, credibility, and ease of navigation shape their attitudes toward digital marketing. Therefore, the model not only supports the exploration of technological acceptance patterns but also aligns with the study's aim of uncovering nuanced, context-specific ways in which digital and indirect marketing strategies are perceived to complement or potentially substitute traditional healthcare communication. (Ghosh et al, 2023). Elements of the model can be explained as below.
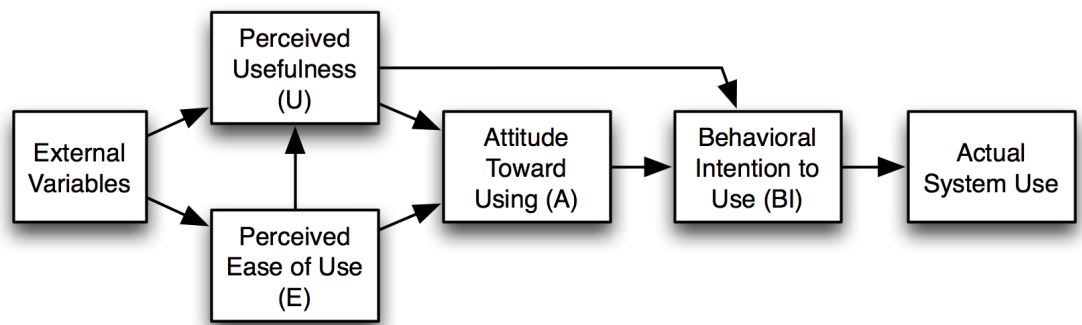
Chapter 2: Literature Review

I. *Evolution of Pharmaceutical Marketing Strategies*

Traditionally pharmaceutical marketing relied heavily on direct interactions between medical representatives and healthcare professionals (HCPs) since these face-to-face meetings were instrumental in educating HCPs about new products and influencing prescribing behaviors. Despite this, the industry has faced challenges due to regulatory restrictions, physicians' time constraints, and the need for more efficient communication channels. (Suleiman et al, 2025). The rise of digital technology has introduced new avenues for pharmaceutical marketing since digital tools such as webinars, mobile apps and email campaigns have enabled companies to reach their target audiences more effectively as these tools offer scalability, cost-effectiveness as well as ability to tailor messages based on data-driven insights. Situations such as the Covid-19 pandemic further accelerated this digital transformation since many companies adapted to virtual engagements to maintain communication with HCPs and patients (Suleiman et al, 2025).

II. *Emergence and Impact of Digital Marketing in the OTC Sector*

Digital marketing in the OTC pharmaceutical sector refers to the use of online tools and platforms such as websites, social media, email campaigns, mobile apps, and webinars to promote non-prescription medications directly to consumers and healthcare professionals. It emphasizes accessibility, interactivity, and data-driven personalization to inform, engage, and influence purchasing or usage behavior (Anis and Hassali, 2022). Digital marketing in the OTC pharmaceutical sector comprises of a wide range of tools and channels such as that of websites, social media platforms, online medical portals and

even virtual sales calls since these platforms offer numerous advantages in terms of the ability to reach diverse geographic locations without the limitations of physical travel. Interactive content formats and real-time updates enhance user engagement compared to traditional methods (Jo et al, 2022). One significant benefit of digital marketing is the ability to collect and analyze data on user interactions since marketing teams can track metrics such as email open rates, click-through rates as well as webinar participation. This analytical capacity allows for content optimization and targeted outreach where practices that are difficult to replicate through traditional medical visits (Anis and Azmi, 2022). Furthermore, digital marketing provides cost-efficiency which enables campaigns to run on smaller budgets with higher returns on investment as the flexibility of digital tools also allows for consistent and on-demand communication (Jo et al, 2022). Healthcare professionals can access educational resources at their convenience rather than being confined to scheduled meetings. The rise of mobile access has further enhanced usability allowing doctors to view drug information and clinical guidelines directly from their phones. As a result, digital marketing is increasingly recognized not only as a supplementary tool but as a potential core strategy in pharmaceutical promotion (Kevrekidis et al, 2021).

III.   *Indirect Marketing Strategies in the Pharmaceutical Industry*

Indirect marketing strategies are non-traditional promotional methods that focus on building brand awareness and consumer trust without direct sales tactics (Adhikari et al, 2021). In the pharmaceutical context, this includes content marketing (blogs, videos), influencer partnerships, community events, and sponsorships, aimed at subtly educating or persuading stakeholders while enhancing the company's visibility and credibility (Adhikari et al, 2021). Examples include how pharmaceutical companies have collaborated with health influencers to provide information about OTC products which

leverage the credibility and reach of influencers (Alarsali and Aghaei, 2022). Content marketing in the form of blogs, videos and infographics helps in educating consumers about health conditions and treatment options. The approach aligns with the growing trend of self-education among patients who increasingly seek information online before consulting healthcare professionals (Adhikari et al, 2021). Community engagement initiatives in the form of sponsoring health events or supporting patient advocacy groups further enhances brand visibility and foster trust among consumers (Alarsali and Aghaei, 2022). These indirect marketing strategies complement direct methods by reinforcing messages and maintaining continuous engagement with target audiences since it also addresses the limitations of traditional channels in the form of one-time nature of medical representative visits through providing ongoing education and support to both HCPs and patients (Castellano et al, 2022).

IV.   *Perspectives of Pharmacists, Doctors, and Patients*

Understanding the perspectives of key stakeholders is one of the most important factors for effective implementation of digital and indirect marketing strategies since pharmacists are a comparatively more accessible group healthcare professionals when compared to doctors playing a vital role in guiding the OTC medication choices of patients. Studies have shown that pharmacists perceive OTC drug advertisements as beneficial for patient counseling despite concerns regarding the potential for misleading information and increased costs (Alarsali and Aghaei, 2022). Contrary to this, although doctors acknowledge the convenience of digital tools, they often emphasize the importance of personal interactions specifically when discussing complex or sensitive medical information. As a result, both pharmacists and doctors may be more receptive to digital marketing when it complements rather than replaces traditional methods since patients are increasingly relying on digital platforms for health information appreciating

the convenience and accessibility that these platforms offer (Kevrekidis et al, 2021). However, trust remains a critical factor where many patients are currently valuing physician recommendations as the gold standard. Therefore, digital marketing efforts must prioritize transparency, ethical messaging and alignment with clinical guidelines to enhance credibility among consumers (Castellano et al, 2022).

V. Challenges and Considerations in Integrating Marketing Strategies

Integrating digital and indirect marketing strategies alongside traditional methods presents several challenge as organizational resistances to change specifically in companies with entrenched sales structures can impact the adoption of new approaches. Training and upskilling are necessary to ensure that marketing professionals can effectively design and implement digital campaigns (Rajput and Pandey, 2022). Compliance and regulatory considerations also pose constraints since marketing messages must adhere to strict legal and ethical guidelines to avoid misrepresentation or data breaches. This often leads to delays in content approval and limits the use of certain platforms specifically in social media. In global companies' compliance must be managed across different regulatory landscapes that further complicating campaign execution. Moreover, digital fatigue among healthcare professionals and patients can reduce engagement with online content. To deal with this the marketing strategies should focus on delivering value through personalized and relevant content which ensures that digital interactions are meaningful and not overwhelming (Rajput and Pandey, 2022).

VI. The Role of Customer and Patient Centricity

Customer and patient centricity are a strategic approach that places the needs, preferences, and behaviors of consumers specially patients and healthcare professionals at the center of all marketing and business decisions. It emphasizes personalized

communication, value-driven content, and continuous engagement to build trust, satisfaction, and loyalty in healthcare interactions (Fleissig et al, 2025). Adopting a customer-centric mindset in pharmaceutical companies helps ensure that the marketing campaigns are effective and engaging marketing campaigns (Alarsali and Aghaei, 2022). Personalization when enabled by data analytics allows for tailored messaging which aligns with individual healthcare professionals and patients.

Omnichannel marketing strategies ensure consistent and seamless experiences across various platforms, enhancing engagement and satisfaction. This strategic approach integrates and coordinates multiple communication channels such as digital platforms, in-person interactions, mobile apps, email, social media, pharmacies, and healthcare provider networks to deliver a seamless, consistent, and personalized customer experience across all touchpoints. (Fleissig et al, 2025). In the OTC pharmaceutical sector, omnichannel marketing ensures that patients, pharmacists, and healthcare professionals receive cohesive messages and support whether they engage through an online ad, a pharmacy visit, a health app, or a virtual consultation (Katsanis et al, 2025). It aims to unify the customer journey, enhance brand trust, and improve decision-making by making relevant information and services accessible through the user's preferred channels (Katsanis et al, 2021). Through prioritizing the needs of pharmacists, doctors and patients' companies can build stronger relationships and drive better health outcomes (Alarsali and Aghaei, 2022).

Over the counter (OTC) pharmaceutical sales differ from traditional product sales in several important ways, primarily due to the nature of the products, the level of regulation, and the role of the consumer in the purchasing process (Iersel et al, 2022). Unlike traditional consumer goods, OTC products are health-related and often purchased for self-treatment of minor ailments without a prescription, which places a greater

responsibility on the consumer to make informed decisions (Iersel et al, 2022). As a result, the marketing of OTC products must balance persuasive messaging with compliance to strict regulatory standards that ensure truthful claims and responsible promotion (Jinnah et al, 2020). Unlike traditional products where emotional appeal or lifestyle branding can dominate, OTC marketing must prioritize education, transparency, and medical accuracy to build trust with both consumers and healthcare professionals (Iersel et al, 2022). Additionally, the sales channels for OTC products often involve pharmacies and healthcare retail environments where pharmacists may influence purchasing decisions, adding a semi-professional layer to the customer journey (Jinnah et al, 2020). This contrasts with many traditional products sold in general retail settings without intermediary guidance. Moreover, digital health literacy and consumer trust in health information play a larger role in influencing OTC sales compared to traditional goods, where purchasing decisions may be based more on brand loyalty or price (Katsanis et al, 2021).

VII.   *Digital Health Literacy and Patient Behavior*

Digital health literacy is the ability of individuals to find, understand, evaluate, and apply health-related information from digital sources (e.g., websites, apps, social media) to make informed decisions about their health. It includes both cognitive skills and technological proficiency, and it plays a crucial role in how consumers interpret pharmaceutical marketing and manage self-care using OTC products. In the context of OTC pharmaceutical marketing digital health literacy plays a vital role in shaping patient behavior and responsiveness to online content. Patients with higher levels of digital health literacy are more likely to engage with educational materials provided via digital platforms, comprehend product labels as well as assess the credibility of the information they encounter (Zafar et al, 2025). The capability is particularly relevant in the OTC

market where consumers often bypass direct consultations with healthcare professionals and rely instead on online reviews, advertisements or even influencer endorsements in the current environment. As patients become more self-reliant in managing minor health conditions their ability to discern trustworthy sources from misleading content becomes critical for the purpose of ensuring positive health outcomes and for the effectiveness of marketing strategies (Zafar et al, 2025).

However digital health literacy is not uniform across the population and is influenced by several demographic factors, including age, education level, socioeconomic status as well as access to technology. Older adults as an example may struggle with navigating mobile apps or understanding health terminology used in digital campaigns which makes them less responsive to modern marketing strategies (Tang et al, 2023). As compared to this younger populations may demonstrate greater ease with digital technologies but could be more susceptible to misinformation or marketing that prioritizes aesthetics over accuracy. These disparities present both an opportunity and a challenge for pharmaceutical marketers where digital platforms offer broad reach and hence the messages must be tailored to different segments of the population to ensure inclusivity and relevance. Without this sensitivity marketing efforts risk alienating or misleading specific patient groups impacting diminishing trust in the brand or product (Tang et al, 2023).

Moreover, patient behavior is shaped not only by access to information but also by emotional and psychological responses to marketing content. Digital health messages that appeal to fear, urgency as well as aspirational wellness that can significantly influence purchasing behavior specifically among individuals seeking quick solutions to everyday health concerns. However, such tactics must be balanced with evidence-based communication to avoid manipulating consumers or fostering unrealistic expectations

(Tang et al, 2023). Research indicates that patients are more likely to trust digital health content when it is supported by expert endorsements, clear citations and user-friendly design. Therefore pharmaceutical marketers must not only consider the cognitive aspects of digital health literacy but also how emotional engagement and presentation style affect decision-making. As a result, a nuanced understanding of these factors allows companies to design more ethical, effective, and patient-centered digital marketing strategies. (Tang et al, 2023).

VIII. *Regulatory and Ethical Considerations in OTC Marketing*

The regulatory landscape governing OTC pharmaceutical marketing is based on multiple factors specifically in the digital domain where content can be disseminated rapidly and across borders. Most countries enforce strict advertising standards to ensure that medical claims are substantiated as patient privacy is maintained and marketing does not exploit vulnerable populations. Regulatory bodies such as the U.S. Food and Drug Administration (FDA), The UK's Medicines and Healthcare Products Regulatory Agency (MHRA) and the European Medicines Agency (EMA) have, as a result, issued specific guidelines for the advertisement of OTC drugs, which are often less restrictive than those for prescription drugs but still require a high degree of accuracy and transparency (Limbu and Huhmann, 2022). In digital contexts these regulations are challenged by the speed at which content can be shared and as a result the use of third-party platforms and the global accessibility of marketing materials may not always align with local legal frameworks. The fragmentation complicates compliance efforts for multinational pharmaceutical companies specially when deploying indirect strategies such as that of influencer marketing or sponsored content that may not be clearly marked as promotional (Limbu and Huhmann, 2022).

Based on these factors, ethical considerations extend beyond regulatory compliance to address broader questions about the intent, impact and the fairness of marketing strategies with one of the most pressing ethical concerns in digital OTC marketing being the potential for misinformation since when companies prioritize sales over accuracy, they risk misleading consumers about the efficacy or safety of products. This is particularly concerning when health influencers or social media personalities are used to endorse products without full disclosure of sponsorship or an understanding of the medical implications (Anis and Hassali, 2022). Additionally ethical dilemmas emerge when marketing targets populations with limited health literacy specifically exploiting their lack of knowledge to drive sales. Ethical marketing in the OTC space therefore requires a commitment to truthfulness, balanced messaging and consumer protection which indicates how companies should be transparent about promotional intent, provide clear disclaimers and ensuring that all claims are supported by credible evidence. As a result ethical frameworks such as the World Health Organization (WHO)'s guidelines on responsible marketing of medicines can serve as useful benchmarks in this regard (Anis and Hassali, 2022).

Another critical ethical issue is data privacy particularly in digital campaigns that rely on targeted advertising based on user behavior, location as well as health search histories (Mohammad et al, 2024). Data privacy involves the responsible collection, storage, and use of personal information especially health data gathered through digital marketing activities. In pharmaceutical marketing, it emphasizes user consent, minimal data collection, transparency, and security, ensuring that targeted advertising and analytics do not infringe on individuals' rights or compromise their sensitive information (Jinnah et al, 2020). While such strategies enhance marketing precision, they also raise concerns about surveillance, consent and data security. Regulations like the General Data

Protection Regulation (GDPR) in Europe and the Health Insurance Portability and Accountability Act (HIPAA) in the United States provide strict controls on how personal health data can be collected and used (Porter et al, 2021). However enforcement remains inconsistent and many patients remain unaware of how their data is being leveraged for marketing purposes. Ethical digital marketing must therefore prioritize informed consent and also minimize data collection to only what is necessary along with implementing robust cybersecurity measures to protect consumer information (Mohammad et al, 2024). With the growth of digital engagement in the OTC sector pharmaceutical companies will need to invest in ethical oversight mechanisms, internal compliance audits combined with transparent communication policies to maintain consumer trust and safeguard public health (Anis and Hassali, 2022).

IX.   Research Gap

Despite the growing body of literature on pharmaceutical marketing there is a significant research gap remains in understanding how digital and indirect marketing strategies specifically influence stakeholder behavior within the over the counter (OTC) pharmaceutical sector. While numerous studies have explored general trends in digital marketing and the effectiveness of online engagement very few studies have examined how pharmacists, doctors and patients perceive and respond to these evolving strategies particularly in comparison to traditional face-to-face methods. Additionally existing research often focuses on prescription medicines leaving OTC products that are more directly influenced by consumer behavior and self-medication trends. There is also limited empirical investigation into the ethical and regulatory tensions that arise in the use of influencer campaigns, targeted advertising as well as personalized digital outreach in the OTC space. Moreover, the role of digital health literacy as a mediator of patient behavior in response to marketing remains underexplored as well as addressing these

gaps is critical for developing ethically sound and inclusive as well as effective marketing

practices that align with stakeholder expectations and public health objectives.

Chapter 3: Methodology

I.   *Research Philosophy*

The philosophical foundation for this study is rooted in interpretivism that aligns with the qualitative objective of understanding participants lived experiences, opinions and attitudes toward digital and indirect pharmaceutical marketing. Interpretivism is also selected as the research philosophy since it supports the view that reality is socially constructed and as a result knowledge can only be understood through the subjective meanings that individuals assign to their experiences. This approach enables a detailed exploration of how pharmacists, doctors and patients interpret marketing messages, form attitudes and thereby make decisions. In contrast to positivist approaches that prioritize quantifiable data and objective measurements, interpretivism is more suitable for this study as it embraces complexity and ambiguity, which are important qualities in marketing communications and stakeholder engagement. Through adopting an interpretive stance the research acknowledges the diversity of perceptions and experiences in the OTC marketing landscape (Mbanaso et al, 2023).

II.   *Research Design and Strategy*

This study employed a qualitative research design that uses semi-structured interviews as the primary method of data collection and the design was chosen to allow participants to express their thoughts freely and in detail which helps in gaining rich insights into how digital and indirect marketing strategies are received and interpreted. Along with this a case study strategy was utilized to provide an in-depth and contextualized understanding of marketing dynamics within the OTC pharmaceutical sector. The case study approach is especially valuable when the boundaries between the

phenomenon and the context are blurred as seen in the case with integrated marketing strategies that targets multiple stakeholders across traditional and digital environments. As a result the study explores the experiences of pharmacists, doctors and patients with exposure to OTC product marketing campaigns in the past 12 months via digital platforms (examples of social media, online portals, mobile apps) or through indirect channels (examples of influencers, patient education initiatives, brand-sponsored health talks) (Mulisa, 2022).

III.   *Sampling Strategy*

For the sampling strategy, convenience sampling technique was employed to identify participants with relevant experience and insights since the aim of the study was to include three key groups. Firstly the population was that of pharmacists who play a crucial advisory role in OTC product recommendations. Secondly doctors were an essential component of the population as they influence or guide patient purchasing behavior and third patients who make autonomous or semi-autonomous decisions in OTC product selection. The inclusion criteria required that participants have been exposed to or involved in OTC pharmaceutical marketing in some form as well as must be at least 18 years old. Based on this, the number of participants was determined according to the principle of data saturation, meaning that interviews continued until no new themes or insights emerged. Recruitment was conducted through professional networks, pharmacies, general practice clinics as well as online patient forums since potential participants received an invitation letter outlining the research aims, the voluntary nature of participation and confidentiality safeguards (Stratton, 2022). As a result of the sampling efforts, the final participant volume comprised of 43 respondents with 12 doctors, 15 pharmacists, and 16 patients.

IV. *Data Collection*

Semi-structured interviews were selected as the primary data collection tool due to their flexibility and depth. Interview schedules were developed for each stakeholder group to reflect their distinct roles and experiences in the OTC pharmaceutical ecosystem. For pharmacists and doctors' questions focussed on exploring their perceptions of digital and indirect marketing materials, interactions with pharmaceutical companies via digital platforms, opinions on the balance between traditional sales representative visits and digital engagement as well as concerns regarding the trustworthiness and ethics of indirect campaigns. For patients the questions focused on their exposure to digital advertisements, social media campaigns and influencer endorsements. They were also asked about their decision-making processes when choosing OTC products, perceptions of credibility and trust in different marketing sources as well as experiences with pharmacy consultations and online health information. Each interview lasted approximately 45–60 minutes and was conducted via Zoom or telephone based on participant preference. All interviews were audio-recorded with informed consent and later transcribed verbatim for analysis. The semi-structured format ensured consistency across interviews while allowing for spontaneous elaboration as this flexibility allowed for deeper understanding into emerging themes and clarify interesting or unexpected remarks made by participants.

V. *Data Analysis*

The study employed thematic analysis, a widely used method for identifying, analyzing, and interpreting patterns within qualitative data. Following Braun and Clarke's six-phase framework, th analysis began with familiarization that involved reading and re-reading the transcripts to develop an in-depth understanding of the content. After these initial codes were manually generated across the entire dataset and

these codes were then grouped into potential themes and subthemes during the theme-generation phase. In the reviewing themes phase the focus was on ensuring that each theme accurately reflected the data and addressed the research aims (Braun and Clarke, 2023). Themes were then refined for clarity and coherence during the defining and naming phase. Finally the themes were integrated into a narrative during the writing-up stage to connect the analysis directly with the research questions. NVivo software was used to facilitate coding, organization as well as data retrieval as these themes were developed inductively indicating that they were grounded in the participants' responses rather than guided by pre-existing theories or assumptions. This grounded approach was essential for capturing authentic stakeholder perspectives on digital and indirect marketing strategies as preliminary themes that emerged from the analysis included digital engagement preferences and challenges, trust and skepticism in influencer-driven health campaigns, the comparative value of traditional versus digital interactions along with perceived gaps in information, personalization, and education (Braun and Clarke, 2023).

VI.   *Reliability and Credibility*

To ensure the credibility and rigor of the study several strategies were implemented. Credibility was supported through triangulation by including three distinct participant groups such as pharmacists, doctors, and patients. Member checking was also conducted with a subset of participants to validate the researcher's interpretations of their responses. As a result, data transferability was enhanced through the use of well-defined descriptions of the research context and participant characteristics that allows readers to determine the applicability of the findings in other settings. Dependability was maintained by establishing a clear audit trail that documented every stage of the research process such as data collection, coding decisions, and theme development.

Confirmability was addressed through reflexivity as the researcher maintained detailed reflexive notes to acknowledge potential personal biases and ensure that interpretations remained grounded in the actual data rather than subjective assumptions.

VII.   *Ethical Considerations*

Ethical integrity was central to the entire research process. informed consent was secured from all participants through a consent form that explained the study's purpose, participants' rights, how the data would be used and how they could withdraw at any time without penalty. All participant data were anonymized. Transcripts and audio recordings were stored on password-protected drives accessible only to the researcher to maintain confidentiality and data security. It was also ensured that the questions asked during interviews with patients were highly objective to avoid creating any feelings of inadequacy or confusion especially when discussing their understanding of marketing content or health-related information. Participants were assured that there were no right or wrong answers as well as their opinions were valued regardless of their level of health literacy.

VIII.   *Limitations of the Methodology*

While the qualitative research design provided rich and context based insights there were also various inherent limitations. The relatively small and purposive sample may limit the generalizability of findings to wider populations. However this is consistent with the objectives of qualitative research that prioritizes depth and detail over representativeness. There was also a potential risk of response bias where participants might have provided socially desirable answers specifically discussions about ethical concerns or commercial influence. This risk was mitigated through building rapport and emphasizing the confidentiality of responses throughout the interview process. Another

limitation related to the mode of data collection since conducting interviews via Zoom or telephone, while practical and accessible for many may have unintentionally excluded individuals who were less familiar or comfortable with digital communication platforms. This could have affected the diversity of the sample and potentially excluded valuable perspectives.

Chapter 4: Findings and Discussion

A total of 43 semi-structured interviews were conducted, comprising 12 doctors, 15 pharmacists, and 16 patients. Interviews lasted between 45 and 60 minutes and were conducted via Zoom or telephone, depending on participants preferences. All participants met the inclusion criteria of having prior exposure to or involvement in OTC pharmaceutical marketing. The interviews provided rich qualitative insights into stakeholder perceptions, behaviors, and attitudes, forming the basis for the thematic analysis presented below.

I. *Interview Findings: Doctors*

1) *Influence of Digital Marketing on OTC Product Awareness and Recommendations*

The most prominent theme that arose from the interviews is the role of digital marketing in increasing awareness and curiosity about OTC products in terms of its direct impact on prescribing or recommending behaviors varies significantly. Many participants pointed out that they do not often change their prescribing decisions solely based on digital marketing campaigns. They highlight that instead campaigns act primarily as reminders or prompts that raise their curiosity or motivate them to seek additional information independently. An example of this is how one doctor reflected that while they had not prescribed a product directly because of an online ad they had witnessed patients had come in asking about a product they had seen advertised digitally. These aspects highlight how digital marketing can serve as a catalyst for patient-driven conversations that healthcare professionals need to currently navigate.

Another participant described digital marketing as pushing their curiosity and thereby suggesting that exposure to digital content prompts a self-directed inquiry rather than immediate behavioral change. This indicates a cautious and evidence-driven mindset among healthcare professionals who often prefer to validate product claims before altering their recommendations. Some doctors noted instances where digital marketing content shared by peers in the form of videos or testimonials from other healthcare professionals influenced their choice of product. For instance one general practitioner mentioned switching brands of cough syrup after viewing a peer's video endorsement indicating the power of peer-shared digital content in clinical decision-making. Along with this digital tool embedded in clinical workflows in the form of prescription software that displays product reminders were also indicated as effective in prompting healthcare professionals to reconsider their choices in real time and suggesting that when digital marketing is seamlessly integrated into existing professional environments it can influence recommendations more directly. As a result these observations suggest that digital marketing's primary role is to enhance awareness, stimulate professional curiosity and support information-seeking behavior as compared to directly driving prescribing or recommendation changes.

2) Confidence and Trust in Digitally Promoted OTC Products

Another key theme was based on the degree of confidence healthcare professionals have in recommending OTC products based on digital marketing efforts that strongly relates to the credibility and nature of the digital content they encounter. Participants widely agreed that flashy banner ads or generic online promotions have a limited impact on building trust and instead their confidence increases when digital marketing is based on evidence-based medicine, clinical data or peer-reviewed information. Many healthcare professionals described how they trust digital content

mostly when it comes from reputable healthcare platforms, established institutions or in the form of input from respected colleagues. One doctor articulated this by saying that "I feel more confident when I hear about the product many times with a rep first and digital later" which highlights the layers or stages of trust-building where digital content often reinforces traditional face-to-face interactions.

Another participant stressed the importance of physicians' involvement in creating and sharing digital materials along with highlighting the fact that peer testimonials and real clinical cases carry much more weight than generic marketing content. Despite this a degree of skepticism is present with several respondents emphasizing that no digital platform can fully replicate the trust generated by personal relationships with medical representatives. For these participants interpersonal contact remains the most credible and effective method of conveying nuanced clinical information. Within this context it can be said that healthcare professionals made distinctions between the types of digital content they consider trustworthy. Expert videos, clinical case discussions and even evidence-based infographics were favored because they offer depth and professionalism. As compared to these simple advertisements or brochure without clinical substance were often dismissed indicating that confidence in digital marketing is highly conditional and largely contingent on the perceived legitimacy of the content as well as the involvement of peers in its creation and dissemination.

3) *Complementarity and Shortcomings of Digital Versus Traditional Marketing*

When reflecting on the roles of digital and traditional marketing methods participants consistently described these approaches as complementary with unique strengths but also distinct limitations. Traditional marketing specifically in the form of visits by medical representatives was praised for its interactive nature, adaptability and

the ability to foster personalized relationships. Healthcare professionals valued how medical reps could tailor their discussions based on specific clinical questions, provide samples or answer queries in real time. These face-to-face interactions were widely regarded as the gold standard for building trust and achieving a deep understanding of product benefits and risks.

Despite this respondent also pointed out challenges associated with traditional marketing approaches such as the time-consuming nature of arranging and attending medical rep visits amid busy schedules along with the difficulty of scaling personal contact across large professional communities. On the contrary digital marketing was recognized for its speed, convenience, scalability and also the capacity to reach wide audiences simultaneously. Digital content can be accessed anytime and even outside work hours which makes it particularly useful for delivering quick updates and maintaining ongoing product awareness. Despite these advantages digital marketing's limitations were also highlighted mainly in the form of lack of personal interaction that can reduce its effectiveness in conveying complex clinical nuances or addressing individualized questions.

Additionally some respondents described digital marketing communications as occasionally overwhelming or considered to be spam especially when emails are frequent or irrelevant. One doctor summarized this by saying that traditional marketing is slow and one-sided but valued for depth whereas digital marketing is fast and broad but requires strong curation to avoid noise. These differing perspectives led many participants to advocate for a hybrid marketing approach where medical representatives introduce new or complex products through personal visits and digital channels maintain awareness and provide routine updates. Such a strategy leverages the benefits of both methods to meet the diverse needs of healthcare professionals with the central idea being

that although digital marketing is reshaping pharmaceutical communication, traditional face-to-face methods remain essential for building trust and engaging in detailed clinical discussions specifically in the sensitive OTC pharmaceutical sector.

4) *Preferences for Types of Digital Communication and Content*

In terms of digital content formats interviewees expressed clear preferences that reflected their professional needs and time constraints. Short expert videos, doctor-to-doctor talks and also webinars were repeatedly highlighted as highly valuable formats as this type of content combine brevity with clinical depth that allows busy healthcare professionals to quickly gain relevant updates without significant time investment. Infographics, comparison charts or concise PDF summaries were also appreciated because they present information clearly and serve as easy reference materials. Participants tended to dislike lengthy brochures or generic advertisements that lacked focus or clinical detail with a higher preference towards platforms that allowed interaction and peer discussion, such as professional social media groups that were favored for enabling healthcare professionals to ask questions, share experiences and also validate clinical findings collaboratively. These interactive communities were viewed as important for fostering trust and ongoing learning with the utility of mobile-friendly tools and clinical apps integrated into daily workflows also emphasized as these can provide timely reminders and quick access to product information exactly when needed. In terms of the communication style there was a strong preference for targeted, concise and direct messaging. Healthcare professionals expressed a desire to customize their digital content consumption, selecting topics and formats most relevant to their specialty and practice rather than receiving broad and untargeted email campaigns. As a result these preferences point to the need for pharmaceutical companies to develop a multi-format digital

marketing strategy that respects healthcare professionals' limited time and diverse informational needs.

5) Suggestions for Improving Digital Communication in OTC Pharmaceutical Marketing

Participants offered several constructive suggestions for how pharmaceutical companies could enhance digital marketing efforts to better engage healthcare professionals with the most common recommendation being to reduce the volume of mass emails and avoid sending irrelevant or overly frequent messages and instead focusing on clear, concise and highly relevant content that respects the recipient's time. Many respondents advocated for involving healthcare professionals in the co-creation of digital marketing materials to ensure clinical accuracy and relevance. Such collaboration would increase trust and turn digital marketing into a two-way exchange rather than a one-sided promotional effort. Further it was also suggested that digital content should ideally follow or complement in-person visits with examples being providing links to short videos or summaries shortly after a medical representative's visit which would reinforce learning while the information remains fresh in memory.

Segmentation of digital communication strategies was emphasized in terms of reserving in-person outreach for truly new or significantly changed products whilst using digital platforms for routine updates and product awareness maintenance. Another important factor that healthcare professionals stressed was on the digital marketing materials that should prominently feature clinical data, peer-reviewed evidence as well as real-world outcomes to align with their evidence-driven decision-making processes. Finally the development of user-friendly digital portals or apps was suggested to enable personalized content selection, facilitate peer interaction and also allow easy follow-up queries to pharmaceutical experts or representatives. Through implementing these

recommendations pharmaceutical companies could significantly increase the perceived value, relevance and credibility of their digital marketing efforts thereby improving engagement among pharmacists and doctors.

6) Comparison of Digital Marketing with Traditional Marketing

To summarize the responses the overarching consensus from the interviews is that digital marketing is a valuable and increasingly necessary component of pharmaceutical communication but not a substitute for traditional face-to-face interaction. Healthcare professionals acknowledge that digital strategies offer essential convenience, broad reach and continuous accessibility in today's fast-paced healthcare environment. Despite these factors such as trust, relationship-building or nuanced clinical discussions still rely heavily on personal contact with medical representatives or trusted peers since digital marketing's greatest strength lies in amplifying, reinforcing and even sustaining knowledge initially shared through traditional channels. The future of OTC pharmaceutical marketing is therefore focussed on an integrated and hybrid approach that combines the depth and personalization of traditional marketing with the efficiency, interactivity as well as scalability of digital tools.

II. Interview Findings: Pharmacists

1. Primary Sources of OTC Product Information

Pharmacists consistently highlighted that medical representatives serve as their principal source of information about OTC products since the presence of the face-to-face interaction provided by these representatives allows pharmacists to receive tailored explanations and to ask questions in real-time that they consider highly valuable. One participant reflected on this by saying that having a company representative personally present made the information more understandable and relevant. The ability to engage

directly, clarify doubts as well as explore product details at length makes this different method from others fostering sense of trust and confidence. In addition to personal visits pharmacists also rely on conferences and scientific sessions to deepen their understanding since these venues offer exposure to research-based knowledge and evolving clinical evidence.

Some pharmacists consult scientific journals and professional websites to supplement the information they gain demonstrating a preference for credible as well as evidence-based sources. However such resources often serve as secondary rather than primary references and in addition to traditional channels many pharmacists reported using digital tools such as email updates, professional forums as well as WhatsApp groups to obtain ongoing information and discuss experiences with colleagues. These platforms provide a valuable means for continuous learning and peer support despite the fact that some expressed caution regarding the reliability of information sourced online.

2. *Factors Influencing Recommendations of OTC Products*

In terms of different factors which influence which OTC products to recommend pharmacists balance information received from marketing materials with personal experience and patient feedback. Several interviewees emphasized that direct experience with a product and positive outcomes observed in their customers strongly shape their willingness to endorse it as this practical approach highlights the importance of real-world efficacy alongside promotional information. Marketing from representatives often acts as the initial introduction although pharmacists tend to seek confirmation through their own trials or patient responses before making firm recommendations. Patient safety and potential drug interactions also play critical roles in decision-making since pharmacists stressed that their clinical judgment and knowledge of individual patient needs guide their choices which ensures that recommendations are both safe and

appropriate. Along with this pharmacist actively engage in professional communities to exchange insights and feedback that further influences their selections by integrating peer experiences and broader market perceptions.

3. *Effectiveness and Limitations of Traditional Marketing Methods*

Traditional marketing specifically through medical representatives is considered as the most effective method for communicating product information as the interactive nature of these visits allows for dynamic conversations where pharmacists can explore details, clarify misconceptions and even receive personalized explanations. This face-to-face contact enhances trust levels and makes the information memorable which are qualities that pharmacists feel are lacking in brochures or generic advertisements. Despite this pharmacist also acknowledged several limitations inherent in traditional marketing approaches as many pointed out that after a representative's visit there is often no structured follow-up that can lead to information gaps and missed opportunities to reinforce understanding. Time constraints and inconsistent visit schedules further reduce the continuity and frequency of communication as printed materials were commonly described as ineffective and pharmacists rarely referred to them once given and also felt that these often lacked the depth necessary to support confident recommendations. Along with this mass media advertising was seen as having little impact within the pharmacy settings and perceived as too broad or disconnected from pharmacists' specific informational needs.

4. *Role and Perceptions of Digital Marketing in OTC Awareness*

Digital marketing has begun to play a more prominent role as a complementary tool to traditional methods as pharmacists noted that digital channels such as email newsletters, webinars, professional websites and even social media platforms help

reinforce and update product knowledge specifically following an initial introduction by a representative. These digital formats offer speed and convenience that allows pharmacists to access information on their own schedule and revisit materials as needed.

Several pharmacists appreciated that digital communications serve as useful reminders and provide accessible summaries which complement the more detailed explanations received in person. An example of this is how one pharmacist noted that receiving a follow-up email with key product points helped them confidently advise customers after a representative's visit. Despite these advantages pharmacists also voiced concerns regarding the sheer volume of digital content with majority of it being irrelevant or overwhelming. This information overload sometimes diminishes the effectiveness of digital marketing efforts and even complicates the task of filtering trustworthy sources from all the marketing information available.

5. *Impact of Digital Tools on Knowledge and Confidence*

The presence of digital marketing materials can positively affect pharmacists' confidence and knowledge specifically when digital information reinforces face-to-face interactions. Pharmacists described situations where they felt more assured recommending products after having access to short educational videos, infographic or webinar content that clarified usage or highlighted new research as these exposures helped solidify understanding and enabled clearer communication with patients. Despite these benefits pharmacists emphasized that the quality and credibility of digital content is integral as these materials that are biased, overly promotional and even lack in scientific backing which impacts the trust and therefore fail to enhance confidence. Responses also indicate that there was a strong preference for interactive formats such as webinars with question-and-answer segments or online forums moderated by experts that facilitate deeper learning and engagement beyond passive reading.

6. *Challenges and Benefits of Engaging with Digital Content*

Pharmacists face several challenges when engaging with digital marketing content with the main difficulty being that of navigating excessive communication channels and determining which messages need actual attention. Many reported that their email inboxes were flooded with generic advertisements or irrelevant updates, causing frustration and disengagement. Some expressed skepticism about the accuracy of digital marketing materials specifically highlighting commercial interests behind them sometimes overshadowing objective information. compared to these, few other pharmacists recognized distinct benefits in digital marketing's ability to disseminate timely updates and foster peer interaction as online communities and messaging groups provide platforms for pharmacists to share experiences, discuss case studies, and obtain rapid advice that is particularly valuable given the constraints of busy work schedules and limited face-to-face opportunities. These digital forums extend the reach of traditional marketing through building a networked support system for continuous professional development.

7. *Digital Marketing as a Complementary Approach*

The pharmacists interviewed predominantly view digital marketing as a necessary complement rather than a replacement for traditional marketing approaches given the fact that digital tools offer advantages in accessibility and speed but do not replicate the depth of understanding and trust built through in-person engagement with medical representatives. Many pharmacists stressed that complex product explanations and initial introductions are best handled face-to-face where digital formats can serve the role of reinforce and update this knowledge over time. Despite this a minority of participants particularly those who favor self-directed learning or face significant time pressures highlighted that openness to the idea that digital marketing could gradually

supplant traditional visits. They recognized the potential for digital innovation to streamline information delivery and adapt to evolving professional preferences specifically technologies like artificial intelligence become more integrated into healthcare communication.

8. *Preferred Types of Digital Content and Platforms*

In terms of digital marketing preferences pharmacists clearly indicated a desire for concise, engaging, and evidence-based content mostly in the form of short videos that visually demonstrate product use, infographics summarizing key points, case studies illustrating real-world outcomes and interactive webinars with expert facilitation as most favored. As compared to these lengthy documents, poorly targeted emails and even generic advertisements were largely dismissed as ineffective. Pharmacists trusted platforms that catered specifically to their profession such as specialized pharmacy websites, dedicated mobile applications and even secure online forums or messaging group as these environments enabled peer-to-peer dialogue and access to scientific resources which distinguishes them from general social media channels that were viewed with skepticism due to concerns about misinformation and commercial bias. Email communication received mixed reviews as some pharmacists appreciated targeted, well defined updates and others found frequent or untargeted messages to be a distraction. In summary there was enthusiasm for integrated digital solutions such as pharmacy management software featuring embedded product updates or direct communication tools with representatives that would streamline access to relevant information reducing overall fragmentation.

9. Recommendations for Enhancing Digital Marketing Effectiveness

Pharmacists suggested several improvements to make digital marketing more impactful in terms of how they advocated for content that is carefully targeted and grounded in scientific evidence rather than purely promotional messaging. Interactive features such as live Q&A sessions, chat support with company representatives as well as peer discussion forums were recommended to facilitate engagement and address questions in real time. Additionally pharmacists expressed a strong preference for centralized digital hubs or applications that consolidate all relevant product information in an accessible and user-friendly format. Reducing the volume of emails and prioritizing quality over quantity in communications would help minimize overload with the use of visual aids and brief as well as focused presentations were highlighted as effective ways to convey key information quickly and memorably. These suggestions reflect pharmacists' desire for efficient, credible and personalized digital resources that enhance their knowledge and support their professional roles without creating additional burdens.

III. Interview Findings: Patients

1. Sources of Information About OTC Medications

Consumers obtain information about over the counter (OTC) medications from a diverse range of sources highlighting various preferences and reliance on traditional and digital channels. Majority of the patients report using online platforms such as Google searches, health blogs, YouTube reviews as well as specialized websites when seeking information about OTC products as these online sources are often preferred due to their accessibility, convenience and the detailed content they provide. Examples include how some consumers mentioned consulting health blogs or product websites before deciding on an OTC medicine whereas others rely on search engines to quickly compare different

options. Digital content in the form of expert opinions, instructional videos as well as user testimonials is identified as particularly helpful in facilitating confident decisions.

Alongside online research many consumers still consult healthcare professionals, especially pharmacists and doctors whether directly at the pharmacy or during medical consultations. Several respondents emphasized the value of professional advice indicating that healthcare providers are trusted because of their scientific training and knowledge of medications. Pharmacists specifically are viewed as authentic and less commercially biased which makes their recommendations influential for many consumers. Traditional advertising channels such as posters at pharmacies, TV commercials as well as in-store promotions appear to have limited reach or influence among respondents. Many patients noted that they rarely pay attention to this advertisement with some strongly indicating that that traditional marketing does not affect their decisions but rather they find digital promotions more engaging and tailored to their needs. However a subset of consumers still regards brand reputation often built through long-standing presence and visibility as important when selecting OTC products even if they do not actively respond to advertisements.

2. *Preference for Healthcare Professionals Versus Self-Research*

The data reveals a strong balance between trusting healthcare professionals and engaging in independent online research where a significant portion of consumers prefer advice from doctors and pharmacists that views them as reliable and expert sources. These respondents tend to trust healthcare providers for accurate and strong science-based recommendations by also appreciating personalized guidance they offer. They often consult professionals first and then supplement this with online information to broaden their understanding. As compared to this another group of participants favours self-directed online research specifically for minor ailments or common OTC

medications since they perceive online research as faster, more convenient as well as less rushed compared to face-to-face consultations. For this group of consumers, digital content is valued for its accessibility and detailed explanations, as they rely on expert videos, peer-reviewed articles, and user reviews to validate their choices and feel empowered to make informed decisions independently. Some even use AI tools or chatbot services for quick advice without the need for appointments or payments. From another interesting perspective consumers adopt a hybrid approach by combining professional advice with their own online investigations. Examples include how they may first seek recommendations from trusted healthcare providers and then verify or complement that advice by researching product reviews, expert opinions and usage instructions online which indicates a trend toward greater consumer agency and the integration of digital and traditional sources in healthcare decision-making.

3. *Awareness and Influence of Traditional Advertising*

Traditional advertising for OTC products in the form of pharmacy posters, TV ads and in-store promotions appears to have a low profile among respondents as many reported rarely noticing such advertisements or simply tuning them out. A common sentiment is that traditional marketing lacks engagement or relevance compared to digital marketing that often provides more personalized and interactive content. The influence of traditional promotions on buying decisions is generally minimal given that while some consumers acknowledged that brand familiarity developed through conventional advertising can be reassuring, the majority expressed that these ads do not directly prompt purchases. Instead, these decisions are more heavily shaped by factors such as personal experience, healthcare professional advice, and digital content. The low impact suggests that traditional advertising may be less effective in the current consumer environment, where online sources and professional consultations dominate. Despite this

some consumers still value the presence of physical advertisements as a reminder of trusted brands specifically in the pharmacy setting indicating a presence though subdued role for traditional marketing.

4. *Trust and Perception of Digital Marketing*

Digital marketing for OTC products in the form of online ads, influencer endorsements, sponsored content as well as health-related websites is widely recognized and encountered by consumers. Many respondents reported frequent exposure to digital promotions through platforms like YouTube, Google search results, LinkedIn posts and even social media influencers. This omnipresence of digital marketing indicates the growing importance of online channels in shaping consumer awareness and preferences. Trust in digital marketing varies significantly depending on the source and presentation which is due to the fact that consumers place higher trust in digital content that includes expert input such as videos featuring healthcare professionals, peer-reviewed articles or detailed usage instructions. Content perceived as transparent, evidence-based and balanced with clear explanations of pros and cons—is viewed as more credible. As compared to these endorsements from non-expert influencers or heavily commercialized ads are perceived with skepticism and even outright distrust. Several respondents highlighted the value of user reviews, testimonials as well as comments sections in providing a fuller picture of product effectiveness and safety where they often cross-check digital marketing claims with professional advice or independent scientific sources. Some consumers actively avoid digital promotions perceived as too sales-driven or misleading indicating a critical approach to online marketing.

5. Impact of Digital Content on Purchasing Decisions

Digital content has a notable influence on consumers' OTC product choices as many respondents admitted having purchased or avoided products based on information encountered online in the form of YouTube reviews, expert testimonials and even user feedback. The presence of visual and instructional materials in the form of demonstration videos and comparison charts that helps consumers feel more confident and informed. This influence appears to surpass that of traditional advertising where digital marketing campaigns often guiding final purchase decisions. Consumers appreciate online content that is accessible, well-presented and even backed by credible sources. Some also value content that discusses side effects and contraindications openly indicating a desire for transparency and responsible communication. Similar to this a minority of respondents remain wary of digital marketing and prefer to rely solely on professional advice or their own prior knowledge as they caution against the commercialization of healthcare information and express concern about misleading claims highlighting the need for ethical standards in digital pharmaceutical marketing.

6. Importance of Brand Reputation in OTC Selection

Brand reputation emerges as an important consideration despite the fact that its role varies among consumers as many patients associate established brands with reliability, product quality and even safety standards. This association contributes to trust and can indirectly influence purchasing decisions specifically for products perceived as having to meet high medical standards. Despite this some respondents downplay the significance of brand names indicating that the active ingredient and therapeutic effect have a higher importance over branding. These consumers rely more on research and professional guidance than on brand loyalty or marketing visibility and a recurring theme in this context is that brand reputation is often validated through multiple channels such

as traditional familiarity, online reviews, professional endorsements and personal experience. As a result, a strong brand presence across both offline and digital domains is seen as more credible and trustworthy.

7.   Preferences for Online Content and Suggestions for Improvement

In terms of digital content that aids decision-making, consumers show a clear preference for expert opinions, video demonstrations, user testimonials as well as detailed usage instructions since these formats help clarify how to use the product effectively and what to expect reducing uncertainty and building confidence. Many suggest that pharmaceutical companies could improve their digital communication through providing more transparent and evidence-based information that highlights both benefits and potential drawbacks of products. Consumers also recommend incorporating more video content featuring healthcare professionals, patient stories as well as comparative data to make information more engaging and trustworthy. Some respondents advocate for digital tools such as AI chatbots and online consultancy services to offer personalized guidance, improve accessibility and even answer questions promptly. Further collaboration with trusted third-party reviewers and scientific institutions is encouraged to enhance credibility as there is a call for digital marketing to focus less on promotional tactics and more on educating consumers that helps them navigate choices responsibly aligning with consumers' desire for transparency, authenticity and ethical marketing practices.

IV.   *Differences and Similarities in Responses*

Technology adoption and perceptions about digital marketing among doctors, pharmacists and patients reveal both similarities and differences shaped largely by their distinct roles, responsibilities as well as information needs within the healthcare

ecosystem. Despite their different positions these three groups show some shared attitudes towards digital marketing along with notable differences in how they engage with and perceive technology in the pharmaceutical context.

The most significant similarity across doctors, pharmacists and patients is the recognition that digital marketing serves as a complementary tool rather than a full substitute for traditional marketing channels. All three groups acknowledge the enduring value of face-to-face interactions and personal communication in building trust and facilitating in-depth understanding of pharmaceutical products. Doctors often appreciate medical representatives' visits for detailed explanations and the opportunity to ask questions in real time but instead they prefer digital content as a convenient follow-up or refresher when schedules do not permit extended meetings. Similar to this pharmacist value the personal relationship developed through medical representatives specifically gaining hands-on experience with samples and clarifying product nuances. Despite this they also turn to digital platforms for quick updates and peer discussions that enhance their knowledge without requiring time-consuming meetings. Within this context patients who are more distant from professional interactions also view digital marketing as a supplement to traditional advice from healthcare professionals. They find value in digital reminders, online health information as well as interactive apps that support adherence and understanding but also rely heavily on trusted personal advice from doctors and pharmacists. This similarity across groups indicates a shared perception that the combination of digital and traditional marketing channels can maximize information reach and impact while respecting the strengths of each approach as well as understanding the limitations that exist.

Another area of similarity lies in the emphasis on trustworthiness and quality of digital marketing content. Despite their role doctors, pharmacists and even patients

demonstrated skepticism toward overly promotional or superficial digital advertisements. All participant groups prefer digital content that is evidence-based backed by credible sources as well as presented transparently. Doctors require scientific validation and peer-reviewed data before incorporating digital marketing materials into their clinical decision-making and pharmacists similarly expect digital content to reinforce or supplement the knowledge gained through in-person contacts rather than to replace them with unverified claims. Patients vary in their digital literacy and capacity to evaluate information critically but most of them express a clear preference for digital materials that come from reputable healthcare institutions or healthcare providers themselves. This similarity across participant groups on quality and credibility reveals a collective need for digital marketing to maintain professional and ethical standards specifically given the sensitivity surrounding health information.

Despite these similarities significant differences arise in the nature and extent of technology adoption among doctors, pharmacists and patients largely reflecting their differing responsibilities and familiarity with medical information. Doctors typically engage with digital marketing within a professional framework by using it primarily as a tool for staying informed about the latest clinical evidence, peer experiences and treatment innovations. Their adoption of technology is selective and often cautious by emphasizing platforms that provide concise but comprehensive clinical data that can directly influence prescribing behavior. Doctors show a preference for peer-reviewed articles, clinical trial summaries as well as expert videos that help them keep current while fitting into busy clinical schedules. As compared to these pharmacists demonstrate a more practical and operational approach to technology adoption. While they also value scientifically rigorous content pharmacists frequently seek digital tools that can aid day-to-day tasks such as product verification, inventory management and patient counseling

support. They are more inclined to use interactive digital platforms in the form of apps and professional social networks to share experiences and gain insights into customer preferences and OTC product trends. Patients adopt digital marketing from a distinctly personal perspective and their technology use is often driven by the need for accessible, easy-to-understand information about symptoms, medication usage as well as self-care. Patients are more likely to engage with mobile apps, social media campaigns and even digital reminders that assist in managing their health rather than with in-depth scientific data. This divergence in adoption patterns highlights the importance of tailoring digital marketing content to the user's context in the form of professional for doctors and pharmacists and personal as well as practical for patients.

Differences in trust and skepticism toward digital marketing are also present strongly among the groups. Doctors exhibit the highest level of skepticism that often requires rigorous evidence before accepting digital marketing messages as credible or useful. Their critical perspective is shaped by their extensive medical training and professional responsibility to ensure patient safety and efficacy. Similar to these doctors tend to distrust generic online advertisements or marketing that lacks peer endorsement or scientific backing. Pharmacists display slightly less skepticism specifically when digital marketing enhances their practical knowledge or customer service capabilities. They often serve as intermediaries through balancing professional caution with responsiveness to patient needs and preferences that may make them more open to user-friendly digital tools and community-driven platforms. Patients on the contrary demonstrate a more varied range of trust as some are highly influenced by digital marketing messages specifically when these align with their health concerns or personal experiences whereas remain cautious and seek validation through professional advice. Patient trust in digital marketing largely depends on the perceived source credibility and

the clarity of the information presented through highlighting a less uniform but still important dimension of skepticism.

Communication preferences further highlight differences among the groups as doctors tend to prefer hybrid communication modes which integrate traditional personal visits with digital follow-ups. Their limited time makes digital channels appealing for quick refreshers or updates, but they value the complex dialogue possible during in-person meetings. Pharmacists that operate in fast-paced retail environments often rely heavily on digital platforms that deliver immediate and even targeted information without disrupting their workflow. Interactive features such as peer discussions, expert Q&A sessions and thereby clinical decision support tools appeal strongly to pharmacists as they support their advisory roles and help manage diverse customer needs. Patients generally embrace digital communication more extensively though engaging with apps, social media and online educational content as accessible sources of health information. They appreciate the convenience and immediacy of digital marketing but often require complementary in-person guidance to fully trust and act on the information. These communication preferences therefore indicate the different ways digital marketing must be structured in the form of defined and evidence-based for doctors and rather practical and interactive for pharmacists as well as being user-friendly and supportive for patients.

The influence of digital marketing on actual behavior also varies among the groups as doctors acknowledge that digital marketing rarely prompts strong changes in prescribing habits but can influence prioritization of treatments and awareness of new options. They use digital marketing primarily as a supplementary resource that reinforces their clinical judgment rather than as a primary decision driver. Pharmacists similarly report that digital marketing helps reinforce or update their OTC product recommendations but does not typically drive wholesale changes. Patients on the

contrary are more directly influenced by digital marketing campaigns specifically when content aligns with their symptoms or health goals. For many patients digital marketing acts as a stimulus to seek further professional advice or to try new products highlighting a more immediate behavioral impact. The contrast highlights the layers in which digital marketing interacts with each group's decision-making processes.

Further perceptions of traditional marketing's strengths and weaknesses further differentiate these groups. Doctors generally view traditional marketing especially in-person visits by medical representatives as valuable for building trust and enabling complex discussions but also as time-consuming and sometimes intrusive. They often feel that medical representatives' time could be better used if complemented with defined and short digital materials that respect their limited availability. Pharmacists see traditional marketing as effective for relationship-building and sample distribution but less efficient compared to digital tools that can provide instant access to updated information as they consider printed brochures or posters outdated and less engaging than interactive digital content. Patients tend to perceive traditional marketing as more trustworthy because of its personal nature but increasingly find it less accessible or relevant compared to digital marketing that offers convenience and continuous engagement. As a result many patients view digital marketing as a way to overcome geographic or time zone barriers that limit face-to-face advice. These differing perceptions highlight the necessity for pharmaceutical marketers to carefully balance traditional and digital strategies according to each audience's preferences and constraints.

V.   Application of the TAM Model

1. Perceived Usefulness: Recognition of Digital Marketing's Role

Responses by the doctors clearly indicate a strong view of the usefulness of digital marketing as many doctors acknowledge that digital marketing helps raise awareness and stimulates curiosity about OTC products. They do not often change prescribing decisions solely because of digital marketing but also recognize its role as a prompt or reminder that motivates further information-seeking and patient discussions. This aligns with TAM's idea of perceived usefulness: digital marketing is valued as a support tool rather than a primary driver of decisions. Doctors appreciate digital marketing when it is evidence-based, clinically relevant, and peer-endorsed highlighting that the usefulness is heavily tied to the quality and credibility of the content. This preference suggests that digital marketing perceived as informative and scientifically grounded is more likely to be useful and thus positively influence acceptance. Moreover doctors recognize digital marketing embedded into clinical workflows such as in the form of prescription software reminders as particularly useful showing that integration with existing systems increases the practical utility of digital marketing and thus adoption likelihood.

Similar to this pharmacists' responses clearly demonstrate that they perceive digital marketing as a useful supplement to their primary information sources specifically face-to-face interactions with medical representatives. Digital tools such as email newsletters, webinars and professional platforms are valued for their ability to reinforce product knowledge, provide quick updates and even serve as convenient reference points after in-person sessions. Examples include how pharmacists highlighted how follow-up emails and short educational videos improved their ability to confidently advise patients reflecting a strong alignment with the PU dimension of TAM since pharmacists see these tools as enhancing both their knowledge and their ability to make accurate

recommendations. Despite this the perception of usefulness is highly dependent on the content being credible, concise and relevant which can be seen in how when digital marketing is perceived as overly promotional or generic the usefulness diminishes showing that the PU variable in TAM is not uniformly high across all digital marketing formats.

As compared to the above perspectives, patients' responses indicate a strong perception of the usefulness of digital channels in guiding decisions about OTC medications. Many consumers view online resources in the form of Google searches, health blogs, YouTube reviews, and expert-driven websites as highly valuable for comparing products, learning about usage or even understanding side effects. This aligns closely with TAM's first construct as the perceived ability of digital tools to improve decision-making and save time is evident. The convenience of immediate access to information without the need for a physical consultation enhances the perceived benefits. For some patients' digital content complements professional advice through additional perspectives and reinforcing their confidence in purchase decisions. However, perceived usefulness is moderated by trust in the source whereas digital tools backed by healthcare professionals are deemed far more beneficial than purely commercial or influencer-driven content. Although usefulness is generally acknowledged skepticism toward certain online marketing tactics reduces its impact for a subset of patients.

2. *Perceived Ease of Use: Digital Content Preferences and Barriers*

Regarding ease of use, doctors express clear preferences for concise, targeted, and clinically relevant digital content such as short expert videos, infographics, and interactive platforms that fit their busy schedules. Digital formats that allow quick updates without overwhelming information are favored indicating a desire for user-friendly, efficient digital tools. This reflects the TAM principle that ease of use positively

influences acceptance. Despite these doctors also identify issues that hinder ease of use such as excessive, irrelevant emails perceived as spammy along with the lack of personal interaction in digital marketing which reduces its ability to convey strong clinical information. These factors can increase cognitive load or frustration, lower perceived ease of use and thus diminish the likelihood of adoption or engagement. Doctors' preference for hybrid approaches combining traditional visits with digital follow-ups indicates a recognition that digital marketing alone may not be easy or effective enough to replace face-to-face interaction. The lack of personalized dialogue in digital formats remains a barrier to ease of use which impacts overall acceptance.

The adoption patterns by pharmacists also highlight how ease of use shapes engagement since many pharmacists appreciated the convenience and flexibility of accessing digital resources at their own pace which is a core principle in TAM's PEOU construct. Interactive formats in the form of webinars with Q&A or expert-moderated forums were especially well-received because they combine professional depth with ease of access. Similar to this concise formats such as infographics and short videos fit easily into pharmacists' time-constrained schedules which enhanced the perception that digital tools are straightforward and not burdensome. As compared to this information overload from frequent and poorly targeted emails reduces perceived ease of use. Some pharmacists noted the challenge of filtering relevant content from a flood of irrelevant messages that creates friction in their adoption process indicating that while the technology itself may be user-friendly, poor content management and targeting can lower the PEOU score in practice.

Ease of use emerges as another significant driver of digital adoption among patients as the ability to access information anytime and anywhere whether through a quick Google search, watching a short explanatory video or reading user reviews

increases engagement. Many respondents highlight the intuitive nature of online platforms specifically YouTube tutorials and product comparison sites requiring minimal technical skills. The simplicity of searching for answers and the accessibility of multiple viewpoints encourage repeated use. Despite this there are barriers for certain consumer segments specifically for those less digitally literate or who feel overwhelmed by the strong volume of conflicting information online. For these individuals the perceived cognitive effort to filter credible content reduces the ease-of-use advantage slowing adoption levels.

3. *Attitude Toward Digital Marketing*

Doctors demonstrated a cautious but generally positive attitude towards digital marketing reflecting balanced evaluation in TAM terms and influenced by the conditional usefulness of digital marketing (dependent on credibility and relevance) along with the ease of integrating digital content into their workflow. Doctors do not reject digital marketing immediately but demonstrate critical concerns about when and how it benefits their practice showing that that their attitude is shaped by a professional responsibility to ensure patient safety and efficacy which makes them more selective adopters than early or casual users. Their preference for peer-shared content and expert testimonials suggests that social influence and professional validation also shape attitudes extending TAM with concepts from models like the Theory of Planned Behavior or UTAUT where subjective norms affect acceptance.

In line with TAM's framework pharmacists' attitudes toward using digital marketing are generally positive but conditional as the majority view digital marketing as a necessary complement to traditional methods recognizing that while it can improve accessibility and reinforce knowledge but cannot fully replace face-to-face interactions for initial product introductions and complex explanations. Their trust in in-person

interactions with medical representatives shapes this attitude as traditional methods are seen as the gold standard where digital tools act as a supportive layer. For some pharmacists particularly those who value independent learning or face time pressures digital marketing is viewed more favorably as a potential primary channel in the future and this variation in attitudes suggests that while most pharmacists are receptive to digital solutions, widespread adoption as a primary source would require overcoming barriers in content credibility, targeting as well as personalization.

Patients' attitudes toward using digital marketing and online information for OTC medication decisions are largely positive despite being complex. Those who have had positive experiences finding relevant, credible as well as actionable content express a willingness to continue relying on these channels. The hybrid approach in the form of consulting healthcare professionals and verifying advice online reflects a constructive attitude toward integrating digital and traditional information sources. Similar to this, a critical stance exists toward overly promotional or biased content with some respondents expressing frustration at the commercial tone of certain online campaigns. These negative experiences may temper enthusiasm and limit willingness to fully depend on digital channels for healthcare decisions. This ambivalence suggests that while the general attitude toward adoption is favorable with considerable strength being conditional on content quality and trustworthiness.

4. Behavioral Intention and Actual Use

The behavioral intention by doctors to use digital marketing is cautious and highly selective as they report using digital marketing mainly as a supplementary tool supporting curiosity, reinforcing traditional marketing as well as providing quick access to updates. This aligns with TAM's prediction that strong perceived usefulness and ease of use foster the intention to use. However, since usefulness is conditional and ease of

use is sometimes limited, behavioral intention appears to be moderated accordingly. In regular use doctors appear to adopt digital marketing for awareness and education but rely on traditional channels specifically in the form of personal visits from medical reps for detailed clinical decision-making as this selective adoption indicates that digital marketing currently plays a supporting rather than primary role in influencing prescribing or recommendations.

Pharmacists' willingness to continue using digital marketing tools appears strong, particularly for formats that are targeted, interactive, and scientifically robust. Their expressed preferences for webinars, peer discussion forums, and pharmacy-specific platforms indicate that the intention to use digital channels will persist, provided the content maintains professional relevance. The suggestion for integrated pharmacy management software with embedded product updates reflects a proactive interest in technology adoption as pharmacists are not merely passive recipients of information but are seeking streamlined and embedded digital solutions. Despite this the fact that many pharmacists still default to in-person interactions as their most trusted source of information suggests that their behavioral intention to rely solely on digital channels remains limited and as a result this partial adoption pattern is consistent with a TAM perspective where behavioral intention is moderated by trust in the medium along with perceived irreplaceability of traditional formats.

Behavioral intention as outlined in TAM is moderately strong among patients as many individuals intend to continue using digital platforms as part of their health decision-making process specifically for non-urgent or familiar conditions. The convenience, breadth of information as well as the speed of access create an intention to maintain or even increase reliance on online sources in the future. Despite this the complex or high-stakes health concerns behavioral intention shifts toward in-person

professional consultation with digital tools playing a supplementary role as this demonstrates selective adoption where patients are willing to use digital channels in scenarios where perceived risks are low but revert to traditional methods when uncertainty or complexity increases. Actual used patterns reflect both the positive influence of perceived usefulness and ease of use along with the moderating effect of trust. Patients report frequently researching OTC medications online before making a purchase with some even making decisions entirely from digital content. YouTube reviews, expert-authored blogs as well as peer recommendations are common touchpoints in the actual decision pathway. The integration of digital research with in-store interactions in the form of confirming choices with a pharmacist suggested a blended model of actual use rather than a wholesale shift to digital-only decision-making. Although actual use is high for everyday health needs it remains situational rather than universal indicating that full-scale adoption is dependent on the context.

5. *Strengths in Doctors' Technology Adoption via TAM Lens*

One key strength is the recognition that digital marketing supports rather than replaces traditional marketing. This balanced view means doctors adopt digital marketing in ways that enhance workflow efficiency and provide credible, easy-to-consume content. Their preference for integration with clinical software and tailored digital communication suggests a path for improving TAM variables and increasing adoption. Doctors' emphasis on peer involvement and evidence-based content strengthens the perceived usefulness and trustworthiness of digital marketing, which are critical for healthcare professionals. Their openness to digital tools that save time and provide immediate access demonstrates readiness to adopt when ease of use and relevance are ensured.

From a TAM standpoint, pharmacists' responses show notable strengths in both perceived usefulness and ease of use for certain types of digital marketing. The appreciation for concise, accessible, and interactive formats suggests that once these conditions are met, pharmacists are highly receptive to digital tools. The fact that they actively seek follow-up materials after representative visits demonstrates that digital marketing is not only passively received but actively integrated into their professional workflow. This readiness to incorporate digital tools, coupled with a willingness to provide feedback on how to improve them, reflects a generally favorable environment for TAM-driven technology adoption.

The primary strengths in patients' adoption of digital marketing and online healthcare information lie in their openness to integrating multiple sources, their proactive research behaviors, and their appreciation for transparent, expert-backed content. This multi-source approach indicates a sophisticated, consumer-driven adoption model that maximizes both digital and traditional strengths. The ability to critically evaluate content also reflects a maturity in digital health literacy, allowing patients to benefit from the efficiency and breadth of online resources while mitigating misinformation risks. High exposure to and familiarity with digital platforms further supports adoption, as patients already engage with these channels in other aspects of daily life.

6. Issues and Barriers in Adoption

As compared to this several issues impede full acceptance given the persistent skepticism toward generic or flashy digital marketing reduces perceived usefulness. When digital content lacks clinical depth or seems promotional, doctors do not trust or engage with it. Moreover, digital marketing's lack of personal interaction reduces its perceived effectiveness in conveying complex or nuanced information, negatively

impacting both perceived usefulness and ease of use. The "spammy" nature of some digital campaigns also detracts from ease of use by cluttering communication channels. The inability of digital marketing alone to build trust comparable to face-to-face interactions means behavioral intention to rely solely on digital content remains low.

Despite these strengths, several barriers hinder full alignment with TAM. The most prominent is the issue of information overload, which undermines perceived ease of use and can lead to disengagement. Content credibility is another major concern, as pharmacists' skepticism toward overly promotional or poorly evidenced materials directly reduces perceived usefulness. Furthermore, the lack of structured follow-up after initial contact whether through traditional or digital channels limits the reinforcement needed for sustained engagement. These challenges suggest that even if pharmacists recognize the potential usefulness and ease of digital marketing tools, adoption may plateau unless these barriers are addressed. Despite generally favorable adoption patterns, barriers remain. Distrust of overly commercial or influencer-driven content reduces perceived usefulness for certain consumers. Information overload is another significant issue, as patients struggle to filter credible information from marketing hype, which can lead to confusion and indecision. For some, the lack of personalized guidance in digital marketing compared to the tailored advice from a healthcare professional diminishes perceived value. Additionally, older or less tech-savvy consumers may face usability challenges, making ease of use less universally applicable. These barriers mean that while digital adoption is strong, it is neither complete nor uniform across all patient demographics.

Chapter 5: Conclusion

I. Summary

The aim of the study was to explore how pharmacists, doctors, and patients perceive digital and indirect marketing strategies employed by over the counter (OTC) pharmaceutical brands. The broader research question of how pharmacists, doctors and patients perceive digital and indirect marketing strategies used by OTC pharmaceutical brands helped investigate and examine the types of content most effective in influencing trust, engagement and decision-making. Further the study also examined the ways in which these strategies complement or fall short of traditional marketing methods and the different considerations for developing stakeholder-specific marketing approaches aligned with patient- and customer-centric values.

A total of 12 doctors, 15 pharmacists, and 16 patients participated in semi-structured interviews where thematic analysis revealed that while all three groups acknowledged the growing relevance of digital marketing in the OTC pharmaceutical sector, their perceptions, adoption patterns and expectations differed significantly. Doctors and pharmacists placed a premium on credibility, regulatory compliance as well as scientific accuracy perceiving traditional channels such as academic detailing, product leaflets, and professional seminars as more trustworthy as compared to influencer-led or purely commercial digital content. Despite these aspects both groups recognised the complementary value of digital tools for delivering concise, visual and even on-demand product information.

Patients, on the contrary, demonstrated greater openness to a diverse range of digital marketing content, including online reviews, YouTube demonstrations, and health

blogs. Although patients valued professional input, they were more likely to integrate multiple sources, both digital and in-person into their decision-making process. Across all groups trustworthiness emerged as a central determinant of effectiveness with digital strategies perceived most positively when they were transparent, evidence-based and integrated with educational content rather than overtly promotional messaging.

The study also found that digital and indirect marketing strategies can complement traditional approaches by expanding reach, providing interactive engagement or even offering rapid updates on new products. However various challenges are present such as information overload, varying levels of digital literacy and also the persistent risk of perceived bias. These findings highlight the importance of tailoring digital and indirect marketing to the unique priorities, information-processing styles and trust thresholds of different stakeholder groups.

II. Recommendations

The findings of this study highlight the need for OTC pharmaceutical marketers to design stakeholder-specific digital and indirect marketing strategies rather than adopting a one-size-fits-all approach. For doctors and pharmacists marketing efforts should focus on presenting scientifically validated and regulation-compliant content. Examples of this are how a brand introducing a new antiallergic drug could create a concise and peer-reviewed product brief accessible via professional healthcare portals as well as complemented by dosage calculators and links to relevant clinical trials. This approach would align with the professional need for evidence-based material as compared to overly simplified or purely aesthetic advertising formats that can be perceived as lacking credibility (Al-Assaf et al, 2025). As compared to this patient-directed strategies should adopt a more relatable and accessible tone. Visual storytelling, patient experience videos and simplified infographics explaining usage, side effects, and

benefits could significantly increase engagement. Examples of this include patient testimonial videos on YouTube explaining how an OTC pain relief gel fits into a day-to-day routine could connect more strongly with consumers than a purely text-based description (Al-Assaf et al, 2025).

Integration between traditional and digital channels is also critical to maximising reach and reinforcing trust and rather than replacing face-to-face product detailing brands should use digital tools to extend the conversation beyond the consultation room. For instance after meeting with a pharmacist, a patient could be given a printed leaflet containing a QR code that links to a mobile-optimised video tutorial which would ensure consistency of information while accommodating different learning preferences. For healthcare professionals, webinars or virtual conference recordings could serve as digital follow-ups to in-person events that would enable ongoing engagement and deeper product familiarisation (Sakhare et al, 2025).

Transparency emerged as a central factor influencing trust among all three stakeholder groups and based on these brands should prioritise clear disclosure of sponsorships, evidence sources as well as potential conflicts of interest. Examples include social media posts promoting an OTC vitamin supplement should explicitly note whether the content is sponsored and cite the specific clinical studies backing its claims. In possible situations partnering with independent professional associations or recognised public health bodies can enhance the perceived integrity of marketing campaigns (Sakhare et al, 2025).

Finally the study also suggests that digital content should be designed with interactivity and educational value at its core specifically when targeting audiences with time constraints or limited attention spans. Interactive tools in the form of symptom

checkers, product comparison charts as well as short animated explainers can help bridge the gap between professional rigor and patient-friendly accessibility (Bhosale et al, 2025). These should be supported by measures to address varying levels of digital literacy specifically among older patient demographics. Providing alternative low-tech entry points in the form of telephone helpline linked to a product's official website or step-by-step printed guides would also ensure inclusivity and prevents the digital divide from reducing the campaign's reach (Bhosale et al, 2025).

III. Future Research Directions

The present study has opened several avenues for future inquiry into digital and indirect marketing in the OTC pharmaceutical sector. One important direction is the incorporation of quantitative methodologies to measure the measurable effects of specific marketing strategies on product adoption and adherence. Examples include experimental study could test whether patients exposed to both a pharmacist's recommendation and a targeted social media advertisement are more likely to purchase a specific OTC medication compared to those who receive only one form of exposure. Such research would provide numerical evidence to support or challenge the patterns identified in this qualitative analysis.

Another promising area of research is cross-cultural examination of stakeholder perceptions. Given that attitudes towards healthcare marketing can vary widely depending on cultural norms, digital adoption rates and regulatory frameworks various studies could compare responses from healthcare professionals and patients in technologically advanced markets like Japan or Germany with those in developing markets where access to the internet and regulatory oversight may be more limited. This would shed light on whether the same strategies can be effectively scaled internationally or require local adaptation.

Longitudinal research would also be valuable, as it would allow scholars to track how stakeholder perceptions evolve alongside the rapid development of marketing technologies. For example, the increasing use of artificial intelligence in personalised advertising in the form of chatbots recommending OTC products based on symptom inputs that may alter trust dynamics over time. Future studies could also examine the ethical implications of such technologies specifically in relation to patient data privacy and informed consent.

Additionally, the role of influencer marketing in healthcare remains underexplored, especially in the OTC space where product risk levels are lower but consumer trust is still essential. A targeted investigation into whether endorsements by healthcare professionals on platforms like Instagram or TikTok can rival the trust impact of traditional medical endorsements could provide valuable guidance for marketers seeking to reach younger audiences. Finally further research could explore the interaction between digital literacy, socioeconomic status, and health decision-making that would help brands identify strategies that bridge accessibility gaps without sacrificing informational quality.

IV. *Limitations of the Study*

This research is subject to several limitations. Firstly, the sample size, although adequate for qualitative inquiry, limits the generalisability of the findings. The results reflect the perceptions of 43 participants within a specific market context, which may not be representative of stakeholders in other regions. Secondly, the reliance on self-reported data introduces the possibility of recall bias or social desirability bias, particularly among healthcare professionals who may have been cautious in critiquing certain industry practices. Thirdly the study's qualitative design prioritises depth over breadth indicating that the relative weight of different factors influencing perceptions was not quantitatively

measured. Finally, the rapidly evolving nature of digital marketing means that perceptions captured during data collection may shift as new platforms, technologies and with new regulatory frameworks emerging.

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Appendices

Appendix I – Interview Questions

I. Interview Questions for Pharmacists

1. Information and Recommendation Practices

a) How do you usually receive information about new OTC (over the counter) pharmaceutical products?

b) What factors most influence your decision to recommend a specific OTC product to a customer? Is it based on your experience, marketing material, patient feedback, etc.?

2. Traditional vs. Digital Marketing

c) How effective are traditional marketing methods (e.g., visits by medical reps, brochures) in keeping you informed about OTC products?

d) What limitations have you experienced with these traditional methods?

e) Compared to in-person visits, how effective do you find digital marketing efforts in terms of product awareness and education?

f) What role do digital tools (email newsletters, sponsored content, online platforms, etc.) play in shaping your knowledge or choices around OTC products?

3. Perceived Impact of Digital Marketing

g) Has digital marketing ever helped you remember certain OTC products or made you more likely to recommend them? Can you elaborate?

(additional question: Do you feel more confident when advising customers about an OTC product you've learned about through digital marketing? Can you think of an example where this happened?)

h) Have you experienced any particular challenges or benefits when engaging with digital content in your professional role?

4. Preferences, Effectiveness & Improvement

i) Do you think digital marketing should complement traditional methods, or could it eventually replace them for OTC products?

j) What types of digital content are most effective for pharmacists?

k) What would make you more receptive to digital marketing from pharmaceutical companies?

II. *Interview Questions for Patients*

1. Information-Seeking Behavior

a) Where do you usually get information about OTC (over the counter) medications?

b) Do you prefer getting advice from healthcare professionals, or do you rely on your own research online? Why?

2. Exposure to Traditional Marketing

c) How often do you notice traditional advertising for OTC products (posters at pharmacies, TV ads, in-store promotions)?

d) How much influence do these traditional promotions have on your buying decisions?

e) How important is brand reputation when you choose an OTC product?

3. Experience with Digital Marketing

f) What kinds of digital marketing for OTC products have you come across?

g) How much trust do you place in digital marketing when it comes to choosing an OTC product?

h) Have you ever chosen or avoided a product based on something you saw online? Can you give me an exemple?

4. Preferences and Suggestions

i) What kind of online content helps you feel more confident when selecting an OTC product?

j) How could pharmaceutical companies improve their digital communication to help people like you make better OTC choices?

III. Interview Questions for Doctors

1. Learning & Evaluation

a) How do you typically learn about new OTC (over the counter) products?

b) Once you're aware of an OTC product, how do you evaluate whether it's appropriate to recommend to patients?

2. Communication Trends

c) Have you noticed changes in how pharmaceutical companies communicate with you about OTC (over the counter) products in recent years? How would you describe those changes? Can you give examples?

3. Impact of Digital Marketing

d) How has digital marketing (e.g., webinars, targeted emails, online platforms, social media) influenced your awareness, memory, or confidence when recommending OTC products?

(additional questions: Have you ever remembered or prescribed an OTC product specifically because of a digital message or campaign?

Do you feel more confident recommending certain products after seeing them digitally promoted?)

e) Have you ever changed or updated your OTC product recommendations based on something you encountered through digital marketing? Can you describe an example?

4. Preferences and Credibility

f) When receiving pharmaceutical information, do you prefer digital communication, in-person contact or a combination? Why?

g) To what extent do you think digital communication can build the same level of trust and credibility as traditional face-to-face interactions? What makes a digital source feel reliable to you?

5. Evaluation and Suggestions

h) What are the strengths and weaknesses of traditional pharmaceutical marketing methods when it comes to OTC products?

i) What types of digital communication or content (e.g., expert videos, clinical tools, apps, platform) are most helpful to you in staying updated on OTC options?

j) In your opinion, how could pharmaceutical companies improve the way they communicate with you digitally?

Appendix II – Interview Responses

I. Interview Responses for Pharmacists

Question	Response(s)
How do you usually receive information about new OTC pharmaceutical products?	"Usually it's the rep that tells me about something new. Sometimes they bring samples or talk it through properly. Ads are there, but I don't rely on them." / "For new OTC products, I depend primarily on representatives. I believe that direct communication provides context and allows for clarifying any uncertainties immediately. While I occasionally see posters or hear radio ads, they're more background noise than useful." / "Usually through medical reps and conferences." / "Before I recommend anything to a customer, I usually wait until I've spoken with the medical representative. I prefer the opportunity to ask questions in real time, clarify usage, and see if there's support material. I've noticed ads or TV spots, but those don't carry much weight with me." / "Honestly, I don't have time for meetings with reps. I prefer accessing information when I want, on my own schedule. I use pharma platforms, quick online videos, and sometimes even Reddit or pharmacist forums. That's way more

	efficient for me." / "Mainly from medical reps. I need someone to explain it first. After that, I stay updated in some Discord groups or forums with other pharmacists." / "Mostly reps. I prefer when they come and explain face to face. After that, if I get some information on WhatsApp or maybe in the ordering software, it helps me remember." / "Mostly from medical reps. They explain the product well and I can ask questions directly. After that, I sometimes get emails or see information online to follow up." / "I like PubMed, reps, patient feedback." /"I've always preferred talking to the rep face to face. That's how I was trained, and I trust a conversation more than anything sent over a screen. I don't pay attention to online ads or emails." / "I always like it better when someone from the company comes to talk to me. When they explain things in person, I can ask what I need, and I understand more. I do see other stuff like ads or flyers, but it's the rep that really makes it stick." / "Mostly from reps who visit and introduce new products in person." / "I rely on scientific articles, conferences, and medical representatives for product updates
What factors most influence your decision to recommend a specific OTC product?	"I trust my gut and past experience. If I've tried it or seen good results, I go with it. A rep's explanation helps too." / "My recommendation choices rely on a combination of personal experience, patient outcomes, and how convincingly the representative explained it. A solid explanation is usually the tipping point." / "Patient feedback, personal experience, and marketing materials." / "A strong understanding of the product's mechanism, backed by my own experience and trusted sources, usually determines what I recommend." / "I go with what's current, evidence-based, and well-reviewed online. Peer discussions in digital spaces influence me a lot more than printed papers." / Documentation, clinical evidence / "Effectiveness, study feedback, and patient demand" /"Experience and if the product is talked about in the pharmacist community. Also, how the rep presented it at first." / "Based mostly on what I already know. I also trust the rep's explanation and how patients respond." / "Experience and what I hear from the rep. Also, if patients say it works well, I tend to stick with it." / "My own experience, what the patients tell me, and what the rep shows me directly. I don't make decisions based on marketing alone." / "I base it on what I've seen working before or what I understand well. If the rep explains it clearly and I've tried it, then I go with that." / "Patient feedback, I pay attention to what customers say about their experience." / "Patient feedback and

	potential drug–drug interactions; safety always comes first."
How effective are traditional methods (reps, brochures)?	"The best way for me is still through the rep, i usually toss the leaflets aside." / "I find representatives incredibly effective in delivering clear, tailored information. Brochures are too generic, and public ads don't answer my questions." / "Medical rep visits have the most impact, but I also rely on digital marketing." / "I've always found direct visits to be the most informative. There's nuance in a face-to-face conversation that brochures or public campaigns simply don't provide." / "Traditional marketing? I find it outdated. I haven't spoken to a rep in years. I'd rather just scan a QR code and read or watch something online from a trusted source." / "Reps are great. Brochures, billboards, papers,i don't really use them. If the rep explains clearly, that's what I remember." / "Medical reps are super effective. They make me actually understand the product. Brochures or TV ads don't help much." / Printed brochures are useless for me. The best is in-person or phone contact with representatives. Digital communication is my second choice." /"Reps are very effective; brochures not so much. I prefer when a person comes to explain in detail." / "Reps are the only method I consider effective. The rest is noise. If I can't ask someone questions in real time, I don't see the point." / "In-person rep visits help the most. Brochures I mostly ignore. Ads don't really stay in my head." / "Very effective in my opinion, reps give the clearest information." / "It could give an idea, but I prefer digging more into details when I have time."
What limitations have you experienced with these traditional methods?	"There's often a communication gap after the visit. It would be helpful to have direct access to the rep afterward, either via message or a dedicated pharmacist hotline." / "They can be time-consuming sometimes medical representatives take too much time during visits, and it's hard to fit that into a busy schedule."/ "The main issue is continuity. After the initial visit, there's often no channel for follow-up. I'd appreciate a formal platform or hotline where pharmacists could consult briefly when needed." / "Too time-consuming. You wait for a rep, they talk forever, and you walk away with a bunch of papers you throw out." / "It's very hard to follow up after the rep leaves. Sometimes I forget the details unless someone reminds me later." / "I forget things after the visit. If I could just message the rep again, it would be perfect." / "I'd like to be able to call the rep sometimes, or even send a quick message like 'Hey, can I use this for kids too?' just to clarify small things." / "Sometimes reps are not available often, or we don't get visits for all

	products. Brochures are easy to forget." / Printed brochures are not very useful; they end up in the trash or in a cabinet where they are hard to find later. I now accept only digital documents. / They take too much time /"Sometimes I don't get visits regularly, and that's a problem. But I'd still rather wait than rely on online information I don't fully trust." / "I just wish I could ask more questions after the visit. Sometimes I forget something or need to check how to explain it better to customers." / "There's a lack of additional product information available when needed." / "No comprehensive information, sometimes I need more detailed updates."
Compared to in-person visits, how effective is digital marketing?	"Not great for learning about new products, but digital marketing helps me remember later. For example, if I saw a product before and it pops up again online, it reinforces what I know." / "Digital tools are best as a supplement, they reinforce key messages or give quick refreshers. They're not as reliable for first-time learning." / "Digital marketing is faster and easier to reach; however, in-person visits are still important because they allow for deeper Q&A." / "While I wouldn't rely on digital marketing as my primary source, it does serve a useful role in reinforcing what I've already learned, especially when there are updates or packaging changes." / "Digital is not just more effective , it's necessary. It lets me learn, check updates, and revisit material without scheduling anything." / "If it's just emails, I tend to ignore them. But if it's in a group chat or Discord and people discuss it, I'm more likely to remember." / "Digital is good, but not for the first contact. Once I know the product, short digital reminders help a lot." / "Not as effective for first-time learning, but very helpful afterward. It reminds me and provides updates." / "I don't find digital tools helpful. It's too easy for information to be oversimplified or biased." / "Online content helps me keep things fresh in my mind. I don't learn new details from digital marketing, but it's useful for reminders." / "In the past few years, I think digital marketing has become almost as effective as in-person visits." / "Digital materials can provide solid information, especially when they're well designed and easy to access."
What role do digital tools (email newsletters, sponsored content, online platforms, etc.) play in shaping your knowledge or choices around OTC products?	"I'm part of a pharmacist Telegram group where some members share valuable information. It helps keep products fresh in my mind and reminds me of options I might overlook." / "I follow a few pharmacist webinars and discussion forums. They've been helpful for sharing updates and real-world use cases from peers." / "They help me stay updated with the latest product launches,

	usage guidelines, and new research findings." / "I've attended a few webinars hosted by companies. The better ones included Q&A sessions those were excellent and very useful. I'd like to see more of that format." / "I follow a couple of medical content creators on LinkedIn and Instagram. I also subscribe to a pharmacist-only app that sends quick case studies and product updates." / "I use pharmacy platforms that show banners or product updates, and I find those much more useful than emails." / "They help me remember certain products or notice new information, like updated indications or packaging." / "I don't use them much. I get too many promotional emails, so I delete them. I also don't take product advice from influencers on platforms like TikTok." / "I've seen banners on the ordering platform I use they're quick to notice and sometimes remind me about things I've forgotten." / "Digital tools can play a big role if the product is marketed correctly and the information is credible." / "Not that much for me personally, i don't rely heavily on digital tools for decision-making."
Has digital marketing ever helped you remember certain OTC products or made you more likely to recommend them? Can you elaborate? (Do you feel more confident when advising customers about an OTC product you've learned about through digital marketing? Can you think of an example where this happened?)	"Yes, I often recall digital ads or newsletters that I've seen online. Sometimes a simple reminder or banner is enough to bring a product back to mind when I'm talking with a customer." / "Yes, sometimes online campaigns help me remember certain OTC products. When I see them repeatedly across different platforms, it reinforces the name in my memory." / "Yes, especially visual ads images or short videos are very effective. They stay in my mind much longer than text-only information." / "Yes, repetition definitely improves memory. When a brand appears regularly in my feed or inbox, it becomes easier to recall later on." / "Yes, digital marketing really helps with product visibility. Even if I don't focus on every ad, the consistent presence keeps the brand familiar." / "Sometimes, yes digital content helps keep certain product names in my mind, especially if I see them often or in a professional context." / "Yes, videos and infographics make a big difference for recall. I tend to remember visuals and key product benefits when they're presented clearly." / "Yes, digital exposure makes me remember products better. The more often I come across a brand online, the more likely I am to recognize it when a patient mentions it." / "Yes, email reminders are quite effective. When I receive a short, informative email about a product, it helps me recall it when I'm restocking or giving advice." / "Yes, I've actually recommended certain OTC products after seeing digital materials that explained their use clearly or presented clinical data." / "Sometimes, when the content is educational or includes

	practical details, it sticks in my mind more and can influence my future recommendations." / "Yes, digital marketing improves recall overall. It keeps product names and benefits visible, which helps me stay aware of what's available." / "Yes, visuals really help me remember specific brands. I find that logos, colors, and product images make a stronger impression than text." / "Yes, when digital campaigns are repetitive and informative, they're much more effective. Seeing the same message several times helps it stick." / "Yes, frequent exposure to digital content increases recall. The more often I see a brand mentioned online, the more likely I am to bring it up with clients."/ " I once felt particularly confident explaining an anti-inflammatory cream after it came up in both a representative discussion and a professional Whatsapp group."/ "When I learn via platforms I trust, I feel more up-to-date and ready to guide customers confidently. So yes. For example, an interactive chart on a website helped me compare cold meds easily."
Have you experienced any particular challenges or benefits when engaging with digital content in your professional role?	"Some of those websites are too clunky, so I usually stop trying after a while." / "One challenge is knowing which content is verified. A tool on official websites could help filter reliable information faster." / "One of the challenges is the overwhelming amount of ads and information, and the constant need to verify the sources." / "I find navigating digital content to be time-consuming at times. A digital assistant or intelligent messaging system could make it easier to find what's needed." / "The biggest benefit is speed, but the main challenge is sorting through too much information. A curated, smart dashboard created by the company would be ideal." / "I receive too much content through email, and I often miss it. However, if the online community is active, I can ask questions and get real answers quickly. That part helps, because otherwise, it's hard to keep up." / "Some platforms are cluttered. It would be nice to have just one simple place to check for updates." / "Sometimes there are too many emails, and many aren't relevant. Some even go to spam. But when the content is short and clear, it's useful." / "Digital content is often too superficial or filled with marketing buzzwords. It doesn't add much value for serious pharmacists." / "Some websites are difficult to navigate. If they were simpler, I'd definitely use them more often." / "Digital platforms are faster and always available, but they reduce personal interaction, which I value." / "They're accessible anytime and reduce paper waste, but the constant flow of emails and ads can be overwhelming." /

	"It's easier to search for information digitally, but it requires reliable internet access and the right devices."
Do you think digital marketing should complement traditional methods, or could it eventually replace them for OTC products?	It should complement, both have value digital brings reach, while traditional keeps personal contact." / "Digital may replace them soon as people rely more on online information." / "I need both reps for introducing new products, and digital tools for keeping up afterward." / "Representatives give depth, while digital channels provide consistency and speed. They complement each other well." / "I believe that digital marketing complements traditional marketing methods rather than replacing them." / "It would be a mistake to rely solely on one. I believe both forms must coexist to be truly effective." / "I think digital will eventually replace traditional methods. It's faster, smarter, and fits modern pharmacy life especially now with the rise of AI-powered tools." / "It should complement traditional marketing. Reps are needed first, then digital platforms can keep us updated, especially through community support." / "Both should work together; one can't fully replace the other." / "It should complement first the rep, then digital follow-ups. I don't think digital can completely replace face-to-face interactions." / "Digital might be more useful for logistics, but not for education. Traditional approaches remain the gold standard for learning." / "They should go hand in hand. I don't want to lose rep contact, but digital definitely has its place." / "I don't think digital will completely replace traditional methods, but it will eventually take the bigger role." / "Based on recent developments, digital could potentially compete with or even surpass traditional methods in the near future."
What types of digital content are most effective for pharmacists?	"Short videos, chat discussions, and even reminder messages from reps quick and visual content works best." / "Peer-reviewed discussion threads, expert-led video presentations, and case-based Q&A sessions are the most valuable." / "Short videos and quick-reference infographics are very effective for learning and recall." / "Structured webinars and practical FAQs from reputable sources tend to work best." / "Interactive tools, case-based videos, quick-reference infographics, and comparison charts make it easier to understand products quickly." / "Discussion threads, quick videos shared in professional groups, and polls I prefer casual, digestible content rather than long emails or documents." / "Short videos, banners in pharmacy systems, or updates that reps can send over WhatsApp are useful." / "Short videos, email summaries, or quick PDF guides nothing too long or complicated." / "I still prefer printed guides, product samples, and detailed conversations. That's

	what works best for me personally." / "Short product videos or even a few bullet points in a pop-up format are great for quick learning." / "Online social media videos can be effective when they're educational and credible." / "Interactive e-learning sessions are also helpful for continuous professional development."
What would make you more receptive to digital marketing from pharmaceutical companies?	"If I had a WhatsApp contact or even a direct number for reps to get fast answers, I'd definitely use that." / "More dynamic interaction for example, chat options, representative follow-ups through an online portal, or push notifications when there are important updates." / "When the company provides accurate, evidence-based information that adds real value." / "Not just pushing content, but enabling meaningful two-way communication between pharmacists and the company." / "Just give me smart tools no phone calls, no rep visits. I want digital, searchable information I can trust." / "If reps joined online communities or if companies created pharmacist-focused forums where we could talk directly with them." / "Maybe if they had an app or a platform where I could message the company or a rep directly to ask quick questions." / "If digital content was targeted, not too frequent, and genuinely useful especially if it follows a visit from the rep." / "If the digital material came after a rep visit and served mainly as a reminder or update, I'd be more open to it." / "If I could get follow-up communication from the rep online maybe a place to ask questions without waiting weeks." / "If the company was already known and trusted, I'd be more likely to engage with their digital marketing." / "Sending less spam and focusing on useful, concise, and well-organized information would make me more receptive especially if it included direct access to product data and studies."

II.   Interview Responses for Patients

Question	Response(s)
Where do you usually get information about OTC medications?	"Mostly from pharmacists I usually ask them directly when I'm at the pharmacy." / "Mainly online, through websites and quick searches." / "From product leaflets and company representatives I meet at health congresses." / "Online sources and sometimes from friends who share their experiences." / "Mostly from online sources and general knowledge about common medications." / "I usually check Google, unless it's an OTC recommended by my doctor." /

	"From sponsored ads, it's like my phone knows exactly what I'm thinking of or need." / "Mostly from doctors and pharmacists, they're my trusted sources." / "I have several trusted doctors in my circle who keep me updated. After speaking with them, I usually do my own research online. I also follow some doctors on YouTube who give practical advice on everyday health issues and recommend medications. Occasionally, I also find useful content on LinkedIn." / "I usually get information from online influencers, LinkedIn posts, and sometimes directly from my pharmacist when I visit the pharmacy. They often recommend newly available products." / "I often search Google before going to the pharmacy to have some idea about what I need." / "I usually go directly to my neighborhood pharmacy and let my pharmacist guide me and recommend which medication to get." / "From the internet and from medical information included inside the product package." / "I check Google and online user reviews almost every time I buy an OTC product." / "Mostly online; I like reading health blogs and official product websites."
Do you prefer getting advice from healthcare professionals, or do you rely on your own research online? Why?	"I prefer to ask a doctor because it's always better to have advice from an expert." / "Online and AI-based search engines are more efficient since they don't require appointments or payments. Plus, they're available anytime and anywhere." / "For OTC products, I always look online first, especially if I don't know the medicine yet." / "Online research is less rushed than a quick consultation at the pharmacy counter." / "I prefer advice from healthcare professionals. I believe they should provide the most accurate and reliable information." / "I use both options. I often consult doctor friends and also do my own online research to make an informed decision." / "Both. I usually consult colleagues to get their point of view, but I always compare what they say with what studies and research show. If it's a new product without much research, I tend to rely more on my colleagues for short-term insights. If there are established studies, I rely more on that evidence." / "Both. I value professional opinions, but sometimes I feel they aren't up to date with all the new products. So, I also do my own research online to explore the best options. I often use ChatGPT for initial insights, then confirm through other sources, and finally ask my pharmacist for their opinion." / "I usually start with my own research to compare options after seeing a doctor." / "I prefer getting advice from healthcare professionals, but I also research online before or after the consultation to have a broader understanding of what I'm taking." / "I prefer healthcare professionals; their training gives me confidence in their advice." / "For over the counter medicine, I believe in my

	own research since these are common and easily understood products." / "I don't visit my doctor for every small issue, only for serious cases that need prescriptions. For minor problems, I do my own research on Google or other health platforms." / "I prefer researching online, it's faster and more convenient for me." / "Healthcare professionals are more trustworthy since they are scientifically trained and know the products well." / "Both. I balance online research with professional advice depending on the situation." / "I prefer healthcare professionals their advice feels more authentic and less commercial."
How often do you notice traditional advertising for OTC products (e.g., posters at pharmacies, TV ads, in-store promotions)?	"Not much, I rarely notice traditional advertising." / "Not very common anymore. Since I watch less TV, and streaming services don't have many ads, I see them less often." / "Not very often; traditional ads don't really reach me." / "Every now and then, especially for painkillers or cold medications." / "I don't really look at them or rely on ads at all." / "Rarely, a well-designed poster might catch my eye. As for TV ads, I usually lower the volume when they come on, so I barely notice them." / "All the time ,I see them quite often, but I usually don't stop to read or pay much attention." / "Sometimes, but they rarely catch my attention." / "Not often, I tend to ignore them." / "About once a week, give or take." / "Sometimes, depending on where I am." / "To be honest, almost never. I don't pay attention to posters, and I don't watch TV ,I prefer streaming services like Netflix." / "Rarely most of what I see comes from my digital feed, not traditional ads." / "Sometimes" / "Maybe weekly, depending on where I go." / "sometimes in pharmacies, when I go to get a medicine / "Very often especially in pharmacies or on TV"
How much influence do these traditional promotions have on your buying decisions?	"A little they remind me of products I've seen before." / "Not much, I trust my doctor's advice more." / "Sometimes, if the ad looks professional or convincing." / "None at all I rely more on recommendations." / "They influence me when I see the same ad repeatedly." / "No influence,I usually prefer to ask the pharmacist first." / "Not too much I prefer to check online reviews." / "Only if the brand looks reputable and trustworthy." / "Some influence, especially for familiar or popular brands." / "Little effect I tend to research products online." / "Sometimes I try new products after seeing an appealing ad." / "Small influence I mostly rely on my own experience." / "Rarely, I prefer to follow personal recommendations." / "They work when the message feels scientific and credible." / "Only when the pharmacist confirms what the ad says." / "Minimal influence I see them more as information than persuasion."

How important is brand reputation when you choose an OTC product?	"Very important I trust known brands that I've used before." / "Important, especially for safety and effectiveness." / "Yes, I usually stick to brands I already know." / "It is important but it also depends on the medication." / "I prefer reputable brands even if they're more expensive." / "Important for building trust with the product." / "Yes, I avoid unknown or unfamiliar brands." / "Brand matters, but I still check the ingredients to compare." / "Yes, I go with familiar brands I've had good experiences with." / "Important, but it's not the only thing I consider." / "Yes, I don't take risks with new or untested brands." / "Important, though price can also influence my choice." / "Brand is a sign of quality and reliability for me." / "Quite important for credibility and trust." / "Brand reputation helps me decide faster when choosing." / "Not much i compare options to be sure."
What kinds of digital marketing for OTC products have you come across?	"I see them regularly on Facebook and Instagram, especially in my feed when I'm scrolling." / "Online ads appear everywhere on websites, social media, and even video platforms." / "I often come across sponsored content from brands promoting vitamins or pain relievers." / "Frequently on Google searches and across different social media platforms." / "I see influencers talking about supplements and wellness products in their posts." / "They're very common now it feels like every health-related page has them." / "Many health websites show banner ads for vitamins, skincare, and pain relief products." / "I often see vitamin ads on social media and health blogs." / "I come across a lot of influencer videos promoting different OTC products." / "Even on TikTok, I see people recommending or reviewing these kinds of products." / "I get many ads on YouTube and in different mobile apps I use." / "Quite frequently digital ads for health products show up almost every day." / "I see them in my social media feeds, especially when I search for anything health-related." / "Everywhere online social media, websites, and even email newsletters." / "I notice these kinds of ads daily they're hard to miss now." / "On most websites I visit, there's some form of OTC product promotion."
How much trust do you place in digital marketing when it comes to choosing an OTC product?	"Relatively high, with my knowledge of marketing and branding, claims can only be made if they are 100% accurate. But always be aware what they are not telling." / "I've become more confident with digital marketing because it's often easier to verify online than through word of mouth."/ "I trust only if the information comes from official or verified pages." / "Little trust most of it feels too commercial or sales-driven." / "Moderate trust, especially when the promotion is for a well-known brand." / "Not really, think your paying for the brand with these

	medications."/" It depends on the source. If it's SEO-based content that ranks high on Google, I tend to trust it more because I know Google prioritizes relevant content. I also trust recommendations from influencers or doctors I follow, but I'm always cautious about what I consume online." / "Some trust, but I always double-check before believing it." / "I believe but mostly when it's a brand I already know." / "I'm curious about what's being advertised." / "I trust, if experts or doctors appear in the advertisement." / "I rely more on customer reviews and influencers / "A lot after all we are living in a digital era and everything can be found on the internet" / "ofcourse but after the ads I need to do my research online/ "Not much I depend more on real recommendations from pharmacists." / "It depends if it's from an influencer, I don't really believe it. But if it comes from an independent or scientific medical institute, I tend to trust it more." / "I'd say a fair amount. I often read the comments or user reviews, which helps me get a more complete picture of the product." / "Yes, I find digital marketing more convincing and relatable than traditional TV ads because digital content feels more personalized, and I can also read what others say about it." / "I trust digital marketing when it includes expert input, credible sources, and clear information about the product."
Have you ever chosen or avoided a product based on something you saw online? Can you give me an exemple?	"Yes, I bought vitamins after seeing an online advertisement." / "I avoided a product after reading several bad reviews." / "No, I don't let online ads affect what I buy."/ "Yes, I chose a brand that was promoted by a doctor online." / "Yes, I tried a supplement after seeing posts from influencers." / "Yes, I avoided a product after seeing negative comments online." / "Yes, I bought something that was recommended in a YouTube video." / "Online ads made me curious enough to try a product." / "Yes, I avoided products that looked fake or unreliable online." / "Yes, I once bought a pain gel after seeing an online ad." / "Yes, Sometime I feel my phone reads my mind and suggest a medical solution through ads / "No, not at all , I prefer my doctor's or pharmacist's advice."/ "Yes, I tried one I saw online and it actually worked." / "Yes, sometimes online reviews influence what I choose." / "Yes, I chose a supplement I saw advertised on Facebook." / "Yes, I bought one from an ad that seemed convincing and trustworthy."
What kind of online content helps you feel more confident when selecting an OTC product?	"Testimonials and expert explanations make me trust the product more." / "Clear instructions and medical opinions help me feel safe choosing." / "Videos showing how to use the product make things easier to understand." / "Reviews from real users are the most helpful for decision-making." / "Doctor interviews or expert talks make me feel more

	confident and videos and real-life examples show me how the product works." / "Short, educational clips are the best for learning quickly." / "Articles with medical references feel more reliable." / "Expert endorsements really help to build my confidence." / "User testimonials and before-and-after results make a big difference." / "Real reviews from verified buyers are what I trust most." / "I prefer expert-based content backed by science." / "Clear visuals and instructions help me remember how to use it." / "Doctor's opinion videos give me confidence in the information." / "Honest reviews that don't sound too promotional are more convincing." / "Clear dosage and benefit explanations make me feel secure."
How could pharmaceutical companies improve their digital communication to help people like you make better OTC choices?	"Develop more studies on each product , that would help build trust. Also, include more comparison tables or charts that objectively show the real benefits of OTC products." / "Avoid traditional ads online and instead provide personalized, problem-solving tips that demonstrate how the product can help." / "Provide online AI chatbots and consultancy services. Offer detailed information about the products, their proper usage, and the cases in which OTC medications are appropriate." / "I don't think OTC products should be advertised at all." / "Use trusted third-party reviewers in their digital content to make it more credible." / "They shouldn't rely on digital communication ,it often feels too money-driven in my opinion." / "Share more patient experiences and testimonials. It's also important to be transparent about possible side effects and how to avoid them." / "Emails are not helpful, they usually end up in spam. Companies should instead work with trustworthy experts and build credibility through reliable, educational content." / "Simplify product information in digital ads to make it easier for everyone to understand." / "Keep the communication clear, avoid medical jargon and make information transparent." / "Clearly communicate both the pros and cons of each product to improve transparency." / "Provide evidence-based visuals or graphics to support product claims." / "Offer more video content featuring medical professionals who explain usage and benefits." / "Include expert testimonials and real-world professional experiences." / "Be more authentic highlight both the advantages and limitations of every product." / "Be more transparent and less commercial in their digital approach." / "Focus more on education and less on marketing language make it about informing, not selling."

III.   *Interview Responses for Doctors*

Question	Response(s)
How do you typically learn about new OTC (over the counter) products?	"Mostly through research and medical conferences where new products or data are presented." / "I usually hear about new OTC products through medical representatives. It's not just about the product itself, but how it fits into current treatment trends, patient demographics, and what other physicians are seeing. The rep walks me through all of that. Once I've got the initial overview, I might follow up online for additional reading, especially if there's clinical content like studies, summaries, or user data." / "For me, when something new comes out, I always prefer the representative to visit. When they explain, they answer all my questions right there sometimes I don't even know what to ask until they explain it. I like that personal interaction." / "Most of the time, it's when the medical representative comes by. I like when they explain it in person because I can ask on the spot, like 'What's different from the old one?' or 'Can I use this with patients who take X?'. That kind of back-and-forth helps me remember. Later, if I forget something, I'll look it up online or review the material they leave." / "Through medical representatives and social media platforms where healthcare discussions take place." / "I'd say it's about half and half now. Medical representatives are still very useful, especially for new or complex products, since I can discuss and ask specific questions. But I also discover a lot through digital platforms I follow several medical update websites, forums, and online physician communities. Sometimes, I even share short summaries after trying something in my practice." / "When it's a brand-new OTC product, I prefer a medical representative to walk me through it. That's when I need to ask questions, clarify differences, and understand its relevance. However, I don't always have time for in-person meetings, so for older or familiar products, I prefer digital content it's quicker and fits better between patient appointments." / "I usually discuss new OTC products during in-person meetings with pharmaceutical spokespersons that's how I've always done it." / "Through medical representatives, advertisements, and professional social media like LinkedIn." / "Through medical representatives, advertisements, and mailing lists." / "Mainly through medical representatives who visit and present product updates." / "Through the internet I

	sometimes check medical news sites or product updates online."
Once you're aware of an OTC product, how do you evaluate whether it's appropriate to recommend to patients?	"I base my decision primarily on available studies and clinical evidence." / "I look at the product's composition, indications, patient profile, and any contraindications. I retain and apply the information better when I've had a live exchange or discussion about it." / "I cross-check the indications, compare the product with similar ones I already know, and verify whether it fits a specific patient's profile." / "I usually rely on the explanation I got from the representative and compare it with what I already use. If it's a new form or combination, I assess how it compares to what I typically recommend and whether patients can actually find it in pharmacies or if it's just marketing." / "Mostly when a medical representative has visited and explained it clearly that gives me more confidence." / "I review the ingredients, practicality for my patients, and whether there's anything new compared to existing options. I also consider what colleagues are saying, especially if the product already exists in other countries." / "I evaluate its clinical value, the target patient profile, and how it compares to the treatments I already recommend. If I've heard about it directly from a medical representative, I tend to have better clarity, but digital follow-ups help reinforce that knowledge." / "I rely mainly on clinical experience and direct information. I don't need flashy marketing or videos to make that judgment." / "I consider potential side effects, patient reviews, and data from past studies." / "I rely on past experience, literature, and comparisons with similar prescription products, always checking for potential side effects." / "I look at the product's price, my own experience with it, and how it fits into my patients' needs. I don't often recommend OTC products unless patients bring them up themselves. I also consider brand reputation, type of treatment, availability in para-pharmacies, and online reviews."
Have you noticed changes in how pharmaceutical companies communicate with you about OTC products in recent years? Can you give examples?	"I've noticed a clear lack of follow-up from medical representatives compared to before." / "Yes, the communication landscape has definitely shifted. I now receive far more emails and online event invitations than I did five years ago. Most of them I skip unless I recognize the sender. Webinars have become a new trend some are genuinely informative, while others feel overly promotional. The quality varies a lot." / "There are a lot more

	emails now too many, in fact. I delete most of them. However, I do notice more websites, videos, and even peer feedback appearing. It's a mixed approach now." / "Oh yes, it has changed. Before, I used to receive only brochures and samples. Now there are emails, links, and online platforms. Honestly, it's too much at times, and I end up ignoring most of it unless it's something I already heard about from a medical representative in that case, I'll go back and read more." / "I haven't noticed any major change personally." / "There's been a big shift. Before, communication was mostly through paper brochures and in-person visits. Now I see more posts, videos, and even WhatsApp updates. I appreciate having more options now, especially when the digital content is created by doctors rather than marketing teams." / "Yes, there's definitely been a change. It used to be primarily in-person contact, but now I receive more webinars and updates via digital platforms. Some of them are helpful, but usually only when I'm already familiar with the product." / "There's too much online noise these days too many emails and webinars to keep up with. It's hard to filter what's actually relevant." / "Previously, communication was mainly through medical representatives. Since COVID, there's been a noticeable increase in video conferences, advertisements, and social media content from pharmaceutical companies." / "I've seen more ads on social media they're more targeted now depending on the season, and often aligned with trending topics like eco-friendly products, natural ingredients, or overall wellness." / "Not really. Maybe more ads on TV, but I hardly watch it anymore. I do notice that during the winter season, the amount of advertising increases a lot on radio and other general communication channels." / "No strong opinion I haven't paid much attention to any changes."
How has digital marketing (e.g., webinars, targeted emails, online platforms, social media) influenced your awareness, memory, or confidence when recommending OTC products? (additional questions: Have you ever remembered or prescribed an OTC product specifically because of a digital message or campaign?	"It reminds me of new products that I'm not yet used to prescribing or recommending." / "Digital tools are most helpful for reinforcement rather than discovery. If I already know the product, a well-timed email or platform reminder can bring it back into my clinical thinking." / "Digital is useful when I already know the product it helps remind me or gives a small update. But I don't trust learning everything from a screen." / "Digital tools help when I already have prior knowledge of the product. Sometimes I forget dosage details or patient

Do you feel more confident recommending certain products after seeing them digitally promoted?)	explanations, and online information jogs my memory. However, I don't rely on digital platforms for first-time learning." / "Webinars and emails are great reminders for products I've already encountered." / "Digital marketing helps me stay updated. It doesn't replace the representative's first explanation, but later on, when I see the product again on LinkedIn or in a peer webinar, it reinforces my memory." / "Digital marketing is more useful for refreshing my memory than for teaching me something new." / "Digital marketing hasn't influenced me much I rarely use it." / "It helps a lot because we meet many medical representatives and often forget what they've shown us, even when it's a great product. Digital updates and advertisements serve as reminders to recommend the product again." / "Not that much. I feel that the more advertising a product needs, the more its success depends on marketing. As professionals, our choices should rely more on evidence-based medicine." / "Yes, once I was reminded of a vitamin D + K combination through an online pharmacy interface, and I mentioned it to a patient the same day." / "Yes, there was an online survey about an allergy product that reminded me of it, and I suggested it again afterward." / "I think I once saw a recommendation for a probiotic in my prescription software. It had a familiar name from a rep visit, so I decided to take another look." / "One of my colleagues posted a short case about a zinc-based throat lozenge. I had seen it before but hadn't paid much attention. That post made me re-evaluate the product." / "Only if I've had an initial, proper explanation or a reliable testimonial first. After that, seeing it again digitally helps reinforce my confidence." / "It gives me some confidence, but that depends heavily on the source. I don't trust a banner ad the same way I trust a case-based summary presented by a clinician." / "I feel more confident when someone has explained the product first. Then, the digital materials help me remember details like dosage and specific use cases later on."
Have you ever changed or updated your OTC product recommendations based on something you encountered through digital marketing? Can you describe an example?	"I wouldn't say I've changed my recommendations drastically, but I've certainly prioritized or re-evaluated certain products after seeing peer reviews or newer data shared online." / "Yes, I changed the brand of a cough syrup I usually recommend after seeing a video from another GP who clearly explained their experience with it. It was simple and convincing." / "Not exactly changed, but I went

	back to recommending an older antihistamine I hadn't thought of in a while. I saw a short video about it online and remembered the medical representative mentioning it too that reminder helped." / "Not a complete switch, but I actually tried a sleep support product after reading a well-done comparison post in a pharmacist group and discussing it with peers. I even shared my own experience afterward on our professional network." / "I haven't drastically changed my recommendations, but I have reprioritized older options when reminded of them through digital materials." / "I haven't I usually update my recommendations based on clinical reasoning or detailed discussions with trusted peers rather than digital marketing." / "Part of practicing medicine is staying updated to help patients better. That's why I keep an eye on new developments online. Digital platforms offer quicker and easier access to information, so I don't always have to wait for a representative to visit." / "No example comes to mind at the moment I haven't made a change directly due to digital marketing." / "Definitely. When I see other physicians actively sharing their experiences online, it increases my confidence and awareness it becomes a form of shared professional knowledge that can influence my choices."
When receiving pharmaceutical information, do you prefer digital communication, in-person contact or a combination? Why?	"A combination, because digital marketing helps remind me of new products, while in-person contact gives me the chance to ask specific questions and get detailed explanations." / "A combination works best. I need the medical representative to explain, challenge, and respond in real time. Digital tools are useful afterward, especially when time is limited." / "I prefer in-person communication for new information and digital communication for maintaining awareness or follow-up." / "I'd say I'm more on the traditional side. I like having the rep come and explain things directly, but I understand they can't cover everything. So digital serves as a good backup not a replacement." / "Mostly in-person I find that face-to-face discussions are clearer and more reliable." / "I really value both approaches. The medical representative provides context and human interaction, but digital content helps reinforce learning and keeps knowledge circulating within the professional community." / "I prefer medical representatives for learning about new products that interaction is hard to replace. For everything else, digital communication is more

	efficient and convenient." / "I prefer in-person communication overall. Medical representatives are usually reliable and can answer questions immediately." / "For everyday or quick updates, I prefer digital content. However, it's still useful to meet with medical representatives for deeper discussions and clarifications. On the other hand, traditional marketing like posters feels outdated and no longer relevant." / "Medical representatives tend to be the best source since they can provide samples and context, but their visits often take too much time." / "In-person communication it's more direct and trustworthy."
To what extent do you think digital communication can build the same level of trust and credibility as traditional face-to-face interactions? What makes a digital source feel reliable to you?	"I think digital communication can't fully replace face-to-face interactions, but it definitely plays an important role today. It offers faster and more direct ways of sharing information, but it should always be supported by credible studies." / "It's possible for digital platforms to build trust, but only if the source is backed by a recognized institution or involves some degree of peer validation." / "A video or presentation from a known doctor helps build trust, but no it's still not the same as speaking in person." / "I trust digital sources when they look professional and not overly flashy. If it comes from a known pharmaceutical platform or includes names I recognize, I'm more likely to believe it. Still, it doesn't reach the same level of trust as face-to-face communication." / "I strongly prefer face-to-face interactions for trust and follow-up questions it feels more personal and reliable." / "Digital trust takes time to develop. When doctors participate in creating and shaping the content, it feels more reliable. If it's just pure marketing, no but if there are real case studies, testimonials, or peer-reviewed summaries, I can trust that." / "Digital communication can build some trust, but it's limited. If the content comes from a reputable clinical source or includes peer experiences, it feels more credible." / "No digital source can build trust the same way a face-to-face interaction does. True trust comes from relationships, experience, and direct conversation." / "It depends on the source. The content must be trustworthy, supported by professional healthcare opinions, and backed by scientific studies." / "Having short, evidence-based articles or videos can help build some confidence, especially when the presenter is a medical expert." / "I don't think digital communication can ever fully

	reach the same level of trust as in-person interactions."
What are the strengths and weaknesses of traditional pharmaceutical marketing methods when it comes to OTC products?	"Face-to-face calls are time-consuming, especially in a busy clinic or hospital setting. Meanwhile, digital marketing can reach us anytime, even after working hours." / "Traditional approaches give me better memory retention and trust, but they're slower and depend heavily on the quality of the representative." / "Medical representatives can answer questions live, and that makes the information more memorable. The main problem, of course, is time it's hard to fit meetings into a busy day." / "Strengths: I remember the person and their product; it builds confidence and provides a backup for inquiries. Weakness: time visits usually last only 5–10 minutes because of my tight schedule." / "Traditional marketing is strong for building personal connections. I still appreciate when a representative understands my practice context and patient base, but it's slower. Digital methods can reach more people and keep the content evolving." / "The strength of traditional methods, especially through medical representatives, is the ability to have a real conversation. The weakness is the time investment required." / "Medical reps take time, but they're clear and thorough. Brochures and printed ads, however, don't add much value." / "Strength: We can interact directly with the medical representative and often receive free samples. Weakness: It takes too long, and we only get one perspective. With digital content, we can also access user feedback, studies, and other doctors' experiences." / "Strength: In-person contact can be adapted to the audience and feels more personal. Weakness: It sometimes feels outdated or too formulaic in presentation." / "Strengths: More human interaction and detailed explanations. Weaknesses: Time-consuming and difficult to schedule." / "I think in-person communication allows for real discussion and trust, but it takes significantly more time to manage." / "Traditional visits offer valuable human contact, but they're limited by scheduling and availability, unlike digital methods which are always accessible."
What types of digital communication or content (e.g., expert videos, clinical tools, apps, platforms) are most helpful to you in staying updated on OTC options?	"Expert videos, for sure they're concise, credible, and easy to follow." / "Mobile-friendly tools work best for me since I can check updates quickly between patients." / "I like real doctor talks and short educational videos rather than ads. I don't read brochures anymore." / "I prefer videos or a short

	PDF with the key points not long documents. Automated reminders in the systems I already use are also helpful." / "Expert videos and webinars are the most useful for staying informed." / "I like short 'doctor-to-doctor' videos, infographics with real data, and case-based discussions. I actually wish there were more Belgian GPs contributing to this kind of content." / "I appreciate targeted platform reminders, concise comparison charts, and short update videos they save a lot of time." / "I don't usually use digital communication for this purpose, but I think it could be useful for staying in touch with medical representatives. Still, I prefer hearing updates directly from them." / "Everything can help, but I prefer social media platforms because they allow me to interact with other doctors and ask questions when needed." / "A well-designed website with a medical representative available to explain things once would be ideal." / "Possibly expert videos, though I rarely use them unless the topic is very specific." / "None in particular I haven't found a digital format that truly fits my working style yet."
In your opinion, how could pharmaceutical companies improve the way they communicate with you digitally?	"By using social media platforms and communication apps more effectively to share updates and engage with professionals." / "Let me choose what I want to read and maybe provide a way to message the representative directly if I have a quick follow-up question later." / "Give us options. Not everything should come through email. A dedicated portal or app where I can select the topics I'm interested in would be much better." / "Keep communication short and clear. If the representative has already spoken to me, send a follow-up link or video afterward but not weeks later." / "The fewer emails, the better. I prefer straight-to-the-point information rather than crowded emails filled with logos and photos." / "Involve us! Allow physicians to give feedback or even help co-create digital material. I'd love to contribute by writing short summaries or sharing my own experiences. Digital communication doesn't have to be one-way it can be collaborative." / "Segment communication properly send digital updates for existing products and keep in-person outreach for new launches or major changes." / "Focus more on personal interaction and less on mass emails or generic online programs. Create tools that make it easier to communicate with trusted contacts." / "Use social media platforms like LinkedIn to create professional communities and

	share verified, trustworthy content." / "Send fewer spam-like emails and be more direct about the evidence-based features of the products." / "Send fewer but more targeted messages keep them relevant to my area of practice." / "Make digital communication simple, concise, and focused on practical value."