

**DIGITAL TRANSFORMATION IN PHARMACEUTICAL  
MARKETING: AN IN DEPTH EXPLORATION**

**<sup>1\*</sup>Vishal Vaijanath Tambare, <sup>2</sup>Shraddha Hrishikesh Dingare, <sup>3</sup>Shrutika Gaurihar  
Katkar, <sup>4</sup>Rushikesh Rajendra Maske, <sup>5</sup>Priyanka Ramling Todkari and <sup>6</sup>Dr. Meera  
Deshmukh**

<sup>1, 34</sup>Student, Lokmanya Tilak Institute of Pharmaceutical Sciences Pune, 411037.

<sup>2</sup>Assistant Professor, Lokmanya Tilak Institute of Pharmaceutical Sciences Pune, 411037.

<sup>5</sup>Assistant Professor, Lokmanya Tilak Institute of Pharmaceutical Sciences Pune, 411037.

<sup>6</sup>Lokmanya Tilak Institute of Pharmaceutical Sciences Pune, 411037.

Article Received on  
02 November 2023,

Revised on 23 Nov. 2023,  
Accepted on 13 Dec. 2023

DOI: 10.20959/wjpr202401-30735



**\*Corresponding Author**  
**Vishal Vaijanath Tambare**  
Student, Lokmanya Tilak  
Institute of Pharmaceutical  
Sciences Pune, 411037.

**ABSTRACT**

Digital technologies advancements have caused a substantial upheaval in pharmaceutical sector. In depth analysis of the effects, difficulties and prospects of multidimensional field of digital transformation in pharmaceutical marketing is provided in this review article. The way pharmaceutical businesses interact with patients, healthcare providers and other stakeholders has been completely reimaged by the digital revolution. This study investigates how digital channels, such as social media, mobile applications and online communities have evolved into crucial tools for spreading information through a thorough analysis of recent literature and case studies. The regulatory environment around digital marketing in the pharmaceutical industry is also examined in depth in this research, highlighting the significance of adhering to strict rules when using the internet. It is also highlighted how digital health

platforms are changing how people engage with doctors and how people enroll in clinical trials. Data driven decision making is a key component of digital transformation that is covered in this article. The article also highlights the necessity of patient-centric strategy in digital marketing, emphasizing the improvement of patient adherence and education using cutting-edge digital techniques. This review study concludes by emphasizing the crucial role that digital transformation plays in pharmaceutical marketing.

**KEYWORDS:** Digital transformation, Pharmaceutical marketing, Digital technologies, E-Marketing, Social Media Marketing.

## INTRODUCTION

By supporting creative research and advancing technology to meet the complex healthcare needs of population, the pharmaceutical industry contributes significantly to the development of vaccines and medications for the treatment of illness, the prevention and reduction of disease incidence, and the improvement of quality of life. The provision of medications to maintain health, stop infections, and treat diseases impacting the world's population is the primary objective of this industry. The development, production, and marketing of drugs by pharmaceutical producers, marketers and biotechnology business are the various subfields that make up pharmaceutical industry which is the part of health care sector. The discovery, development, production and marketing of pharmaceuticals or vaccines as medicines given to patient has as its goal the prevention, treatment or symptom relief of many diseases.<sup>[1]</sup> The most recent clinical practice recommendations are now more known among physicians thanks to marketing and promotion initiatives. The primary cause of health care spending, chronic diseases, are made more widely known through pharmaceutical marketing. Pharmaceutical marketing makes sure that new studies, clinical data, dosage instructions and updated drug safety profiles are available as soon as possible.<sup>[2]</sup>

## EVOLUTION OF DIGITAL TRANSFORMATION

The answer to the question “what is marketing” maybe it is a process by which one discovers the need and wants of people, makes a product to suit the needs and wants, and finds a manner of delivering the product to market place, decides how to communicate the product to market, choose a price that targets the people and then creates a transaction for exchanging the product for price, satisfying the needs and wants of customer. The development of marketing did not happen suddenly; rather international events and circumstances compelled the best people to create this strategy for sustaining and expanding their businesses.

Three stages can comprise the evolution process: running, selling and marketing. The production idea won out over the industrial revolution era through the roaring 1920s. Industrialization occurred at a time of low output little competition and great demand. Companies were uninterested in the preference or desires of public. They were solely concerned with two issues is: the product producible? Can we create it in sufficient quantities? Because the majority of items produced were those of historical need and there

was a sizable amount of unmet demand, the production concept generally worked successfully. Almost everything that could be made was easily sold with the maker setting the price. The production concept held sway to the end of 1913. However by the beginning of 1937, production had become routine, the level of competition had risen and their demand had shrunk. Now business have started to put into reality the sales concept for selling concept, which was designed to persuade consumers to purchase their goods through promotion and direct sales. After the product was created and produced, the marketing process was carried out and lot of people started to link hand selling with marketing.<sup>[3]</sup>

## **DIGITAL TOOLS AND PLATFORMS<sup>[11],[2]</sup>**

Pharmaceutical companies must tell costumers honestly and openly without making any false claims or promise of compensations. So, when developing their strategy pharma marketers must think about the marketing channels they will use.

### **1- PPC Ads**

One of the pillars of digital marketing is PPC advertising, sometimes referred to as pay-per-click advertising. One benefit is that they adhere to the rules set forth for drug advertisements. One of the most popular internet search engines is Google. Around 7% of the platforms daily queries in 2021 were health related. Therefore, a large portion of your target audience can be found online. PPC ads may be able to help with this by boosting interaction and driving more visitors to your website. A PPC advert allows you to:

- Increase website traffic
- Boost sales
- Target particular subsets of your target market
- Target particular areas

Additionally, Google has a variety of illegal medications and dietary supplements in place. The purpose is to safeguard consumer's right to security and truthful advertising. Therefore, PPC advertising is a wise choice for pharma marketers who want to bolster their brands online presence.

### **2- Email**

- An increasingly significant digital channel in pharmaceutical industry's marketing and sales is email. Because of its ability to be personalized, it is a potent weapon. But also because it adheres to the rules and ethical standards set forth in pharmaceutical

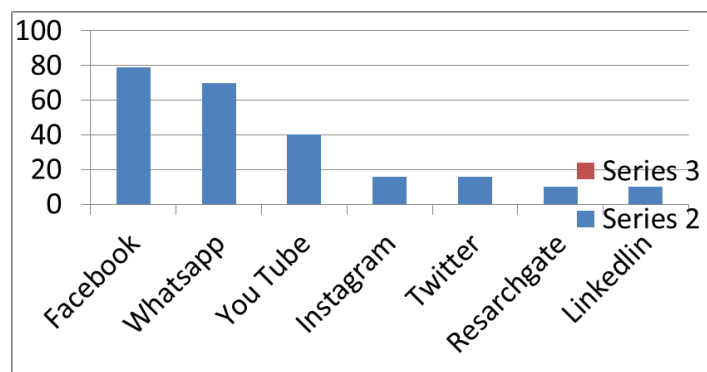
advertising. The market is shifting to omnichannel marketing tactics. Email will so develop into a potent instrument for building solid ties with costumer. Why? Over 253% more emails were sent in 2021 alone, while the average open rate increased by 41%. With email, you can: follow up on in –person meetings, give the doctor useful information suited to his or her requirements, and create a direct line of communication that encourages discussion and cooperation.

### **3- Video**

- The marketing industry is currently obsessed with video. In Pharma, it also got popular. Nowadays most people's time is spent on their mobiles. Additionally the wealth of knowledge at their disposal has encouraged a preference for easily consumable content. This format is both educational and interesting. Video opens the door for a cutting-edge strategy to both audiences for pharma companies as a digital marketing tool, patients and HCP in this instance. Consequently, if you use it in your communication strategy, you: Transform difficult-to-understand data and information into clear content; Share insightful information about your product and services; Monitor your audiences interests and demands; and personalize your content to suit their tastes. You can adhere to the standards and laws governing pharmaceutical advertising set forth by the EU through video. In comparison to conventional advertisements, your videos might contain more information. You may then describe the benefits and characteristic of your products without deceiving the customer.

### **4- Social Media Marketing**

Social media activity is used by search engines as a marketing strategy. Your rank search engine results pages will improve as a result of face book, shares, twitter re-tweets, and Google +1s. Social media marketing enables the business to communicate with its customers directly. As a result, the corporate values are strengthened and the organizations reputation is enhanced .by sending alerts from the company website and fostering discussion, unfavorable experiences in the open forum can be overcome .social media use has contributed to modern living, particularly pharmaceutical marketing and the healthcare industry. The majority (97.8%) of research participants reported being frequent users of social networks, which is consistent with Moorhead et al.'s definition of the effects of social media development in the US.



**Fig. Social Media Marketing.**

## ADVANTAGES OF DIGITAL TRANSFORMATION

The pharmaceutical business has many prospects for growth, which provides important process advantages that get rid of soloed systems and persistent industrial inefficiencies. Pharma firms will be better able to satisfy future demands as a result. The pharmaceutical sector and its production methods are being impacted by digitalization in many different ways.

### 1- Increased Visibility

Due to increased visibility of supply chain activities provided by digital technologies, business is able to make better business discussion. With the help of digitization, businesses may fully integrate their supply chains, resulting in more flexible and responsive operations that will improve production processes. These modifications increase accuracy, inventory levels, manufacturing efficiency, and service which enable organizations to act more quickly and strategically. Pharmaceutical firm benefit from increased visibility throughout value chains because to digitalization. These organizations can use these insightful findings to improve their drug designs and learn from their current operations as a result of the greater data visibility.

### 2-Cost Reductions

In the pharmaceutical sector, digital transformation helps to reduce per-capita expenses. Machine learning, artificial intelligence, and machine –to-machine communication are frequently used in industrial plants as part of digitalization. These automatic corrective action, better preventative maintenance, and seamless production operations are all benefits of these digitalized processes. Pharmaceutical firms encounter fewer mistakes and malfunctions as a result. Digitalization reduces repair costs, liabilities, and downtime by preventing equipment faults, which results in greater cost saving.

### 3-Improved Efficiency

Operational efficiency was cited by 40% of executives as one of the top advantages of digital transformation. Through digital transformation, pharmaceutical businesses can improve the productivity and efficacy of their manufacturing processes. Businesses may gather data across all of their locations to digitalization, which give decision-makers valuable information about the overall operational effectiveness of their organizations. Additionally, they can use this information to examine process inefficiencies and come up with improvements.

### 4-Higher Product Quality

Pharmaceutical businesses collect procedural data to guarantee the quality of their products. However, a lot of these firms still use paper records in their offices, which leaves gaps in the quality control procedure. Because of the numerous technologies and data sources that quality management professionals must use to perform their duties and the lack of real – time data access, studies suggest that it takes pharmaceutical businesses a minimum of 6 months to onboard them. Data collection and administration by digitalized technologies enhance process efficiency and lower the risk of errors, while paper documentation through manual spreadsheets and reports takes time and is prone to errors. Pharmaceutical firms can better their quality assurance by gathering data from many sources, standardizing it, analyzing it. Additionally, it enables continuous observation throughout.

### 5-Competitive Advantages

Pharmaceutical firms can enhance production process, lower cost and raise production quality by integration digital technology. Because of these important advantages, businesses who adopt it have distinct competitive advantage against pharmaceutical firms that are not digitized here operations. Pharma companies can get better results for their enterprises that will set them apart from other organizations by giving digitalization a priority in their supply chains.

## REGULATORY AND ETHICAL CONSIDERATION<sup>[8]</sup>

Unmoral behavior has permeated every aspect of pharmaceutical marketing around the world. Previous research uncovered various ethical factors that affect pharmaceutical marketing in terms of caliber of healthcare. Researchers from Saint Joseph's University in US studied news from top 5 US newspapers in the year 2004 and 2005. They learned newspaper for coverage of moral concern in the pharmaceutical sector and have discovered a significant

worrisome circumstance in light of moral concerns conducted by several pharmaceutical firms. In the most prevalent topics in 2004 were drug data disclosure, import and export price. In 2005, the main concern was drug safety, and drug price comes in second place. News stories were depressing 43.9% in 2005 compared to 57.1% in 2004. Full text publications in 2004 and 2005 were negative 69.5% and 60.1%. In 2004 and 2005, 77.7% of respondents opposed the assertion. In 2005 it reached 82.7%. Pharmaceutical Research and Manufacturers body (PhRMA), the trade body for the sector, citing ethical concerns (for instance, medicine cost) garnered extensive coverage, although several concerns were found that weren't on PhRMA's list among them, drug safety. The study findings were that drug safety, pricing data disclosure, import or export and health insurance are top six news stories in newspapers. Design of the clinical study and marketing constraints are mainly unfavorable and dismissive of the positions espoused by pharmaceutical business. Research paper "of pharmaceutical industry" found ambiguous ethical aspects of the pharmaceutical sector. In this essay, the authors have determined the factors influencing the medical physicians who are their immediate clients, and PSRs themselves, both see representative's actions as unethical. The research has revealed this. Providing false and insufficient information providing incentives with gifts, creating a negative comment concerning competitor's products, falsifying daily call logs and making inappropriate use of sample fraud is a serious issue. Regulation changes suggested by Zetterqvist, Mario and Mulinari may enhance the quality of medication information and intensify active pharmaceutical marketing is being watched, as well harsher penalties and media attention. Then again, the significance of enhancing regulatory framework guarantee accurate medication information or more fines, these efforts by themselves are not enough to address extra levels of sector specific bias. Normative conduct of medical specialist is also waiting.

## CHALLENGES AND BARRIERS<sup>[6]</sup>

Digital marketing is an effective tool for growing pharma businesses, but it is not without challenges. Among these challenges are:

### 1-The Risk of Strategy Cracking

The risk of pharmaceutical companies is that promotion strategies being stolen through digital platforms is one of the drawbacks of the digital marketing. Competitors can copy and mimic a well known company's profitable promotional strategies, which they may employ for their own objectives.



## **2-Material for Promotion of Limited Products**

Another practical drawback of digital marketing is that it primarily helps consumer goods, and all pharmaceutical brands cannot advertise online.

## **3-Positive Action**

Another drawback of internet marketing is that even a single person or small group of people can damage a well known company's reputation. Bloggers, opinion leaders, and anti brand campaigners use the term to disparage the reputation of brand.

## **4-Internet Access Limit**

Internet access is essential for digital marketing. Digital marketing could be ineffective in place with little or no internet access. In some places, customers might not be able to use the internet or have inadequate internet connectivity.

## **5-Brands contend with fierce competition**

When a customer searches for a certain product from a specific company online, multiple competing goods and services using the same marketing strategies appear on the user's home page. Customers become disappointed as a result, while another company's product is more affordable and of superior quality. As a result, some consumers have little faith in the numerous advertisements that they see on websites and social media platforms and mistake them for scams or dishonest companies.

## **CASE STUDIES<sup>[3]</sup>**

1. In a study on the promotion of medical items in Bangladesh, Health Watch discovered that pharmaceutical sales must increase to meet the sales goal. Pharmaceutical sales representatives (PSR) engaged in numerous actions that the ethical marketing of drug sales is in conflict with a Bangladesh action. They adhere to the lists by their respective pharmaceutical companies; doctors are divided into 'A' through 'C' categories depending on the experience and number of patients attended by physicians.
2. In Malaysia many international pharmaceutical corporation with a focus on research have established their offices according to the principles (Zin, 2013). These companies utilize in house sales and marketing personnel that work with pharmaceutical medical regulatory and administrative functions, leaving their chosen as the physical distributors for exclusive raw material imports, order processing and delivery and bill payment.



Pharmacists are available and even doctors working for these businesses and distributors to guarantee the standard of healthcare services

## **FUTURE PROSPECTS AND EMERGING TRENDS<sup>[4]</sup>**

### **1. Introducing Mobile Apps**

The FDA published guidelines for the mobile medical applications ended a protracted waiting period for the pharmaceutical industry. Before medications are prescribed, mobile applications assist patients in better understanding their diagnosis and treatments. Complete information on any drug can be included in apps that enable better direct marketing to customers. Pharmaceutical companies would be more successful if they partnered with businesses that could supply the applications in context of patient management, including symptoms and medications, rather than exclusive disease management.

### **2. Data Sharing On Population Studies**

If the data is not analyzed, the extensive overtime data generated seems to be a waste. Reporting the data's findings is necessary. The real transformation in digital healthcare will come from the convergence of point, mobile, and analytical contents.

### **3. Collaborative Business Models**

Despite its usual barriers, the pharmaceutical sector is increasingly innovating by working with and beyond its partners. The accessibility of digital technologies makes extensive collaboration possible. The employees are capable of producing novel medicines quickly and successfully. For example, Pfizer has created a cutting edge cloud based clinical data platform to gather, analyze and visualize patient data in clinical trials and medical programs and to support smart test design, precision medicine, pharmacovigilance, and regulatory inquiries.

### **4. Ensure IT Support**

To solve issues with digital marketing adequate IT support is necessary.

### **5. Patient and Healthcare Provider Services (HCPs)**

Patients are also anticipated to receive technology based services from HCPs, who are required to use more software every day to support patients with quality administration and monitoring. The research and development of new treatments can benefit greatly from these services. To help patients and HCPs with health difficulties, patient services that are digitally

enabled should be used, such as applications, online platforms, or educational resources linked to larger range.

### **6. Create a New Digital Marketing Organizational Structure**

Establish a digital marketing committee, a marketing strategy manager, etc. to promote firm innovation in digital marketing and to create digital strategies.

### **7. Programmatic Advertising<sup>[10]</sup>**

Programmatic advertising is the use of automated technology to buy advertising space. With these systems marketers only need to supply content, campaign goals (such as maximizing brand awareness), budget constraints and other campaign constraints (such as location and demographics), and the system will optimize the campaigns to produce the highest returns possible given the stated goals and constraints. Programmatic advertising can produce higher returns, greater efficiency, a large reach, and more ad places because computers can monitor, evaluate and adjust to market changes more quickly than most people can.

### **8. Conversational Marketing**

Conversational marketing is a way of engaging with your target audience through real time dialogue driven activities such as live chats, messaging apps, or conversational AI chat bots. Conversational marketing aims to make the customer experience as seamless and simple as possible while building meaningful relationships with customers through dialogues. An increasing number of marketers are using chat bots to expand conversational marketing. Chat bots can assist in automating some marketing messages and ensuring prompt and immediate client service. Time and money savings, increased customer engagement, quicker response times, and increased consumer data are some of primary advantages of a Chabot marketing strategy

## **CONCLUSION**

It has become clear that the fusion of technology and healthcare is dramatically changing the sector. Pharmaceutical businesses are well positioned to boost patient involvement, accelerate the drug discovery process, and ultimately provide more individualized healthcare solutions as they continue to adapt the embrace digital tools. But there are obstacles to overcome, like the need for constant innovation, data privacy concerns and legal compliance. Pharma stands to gain significantly from the ongoing digital revolution with a proactive strategy and dedication to ethical principles, eventually benefiting patients and the industry as a whole.

This study emphasizes the need of keeping up with new digital trends and remaining adaptable in the always changing field of pharmaceutical marketing.

## REFERENCE

1. Rajput Kalyani, Dr.Pandey Rajesh Kumar, Pharmaceutical Marketing: A Literature Review, International Journal of Engineering And Management Research, April 2022; 2: 12.
2. Parekha Dhara, Dr. Kapupara Pankaj, Dr. Shah Ketan, Digital Pharmaceutical Marketing: A Review, Research Journal of Pharmacy and Technology, December, 2015; 108-112.
3. MASOOD I, IBRAHIM MIM, HASSALI MA, AHMED M, Evolution of Marketing Techniques, Adoption in Pharmaceutical Industry and Related Issues: A Review, Journal of Clinical and Diagnostic Research, December 7, 2009.
4. Bharskar Ganesh, Siddheshwar Suhas, Digital Marketing in Pharmaceutical Sector, International Journal of Pharmaceutical Science and Health Care, Mar.-Apr. 2020; 10: 2.
5. Dr. Gawande Amol, Dr. Kumar Atul, Dr. Darekar Sheetal, Digital Pharmaceutical Marketing: A Review, Embracing Change And Transformation-Breakthrough Innovation and Creativity.
6. Dr. Rajasekharan Bamini, Sasikumar K., Opportunities and Challenges of Digital Marketing in Pharma Companies: A Review, SHODHSAMHITA, 2021-2022; VIII(17): 89-98.
7. Haque Ahasanul, Kabir SMH, Tarofder Arun Kumar, Anwar Naila, Yasmin Farzana, MHM Nazmul, Pharmaceutical Marketing Ethics in Healthcare Quality for Patient Satisfaction: An Islamic Approach, International Journal Of Pharmaceutical Research, Jan-Mar, 2019; 11(1): 1688-1697.
8. pharma marketing NETWORK, The Ethical Considerations of Pharmaceutical Marketing: Balancing the Needs of Patients and Profits, Admin ehs, 16/04/2023, URL <https://www.pharma-mkting.com>
9. MECO, Digitalization In The Pharmaceutical Industry , Devin Lehigh, 10/01/2023, URL <https://www.meco.com/how-digitalization-affects-pharma-industry/>
10. BCcampus, Foundations in Digital Marketing, Rochelle Grayson, URL <https://opentextbc.ca/foundationsdigitalmarketing/chapter/future-digital-marketing-trends/>

11. BlueNovius, Pharma Marketing: Digital Channels and Tools To Consider, URL <https://www.bluenovius.com/engagement/pharma-marketing-digital-channels-tools-to-consider/>