

MARKET POTENTIAL AND CHALLENGES OF LIFE-SAVING DRUGS IN MAHARASHTRA, INDIA: A CASE STUDY OF KOLHAPUR DISTRICT

Manisha Shinde-Pawar*

*Associate Professor, Department of Computer Applications,
Kasegaon Education Society's Rajarambapu Institute of Technology,
Affiliated to Shivaji University, Sakharale, MS-415414, India.
mjs.imrda@gmail.com*

Jagadish Patil

*Assistant Professor, Department of Management Studies,
Bharati Vidyapeeth (Deemed to be University),
Institute of Management and Rural Development Administration, Sangli, India.*

Sumedh Potdar

*Visiting Assistant Professor, Department of Management Studies,
Bharati Vidyapeeth (Deemed to be University),
Institute of Management, Kolhapur, India.*

Prashant Kharat

*Associate Professor, Department of Information Technology,
Walchand College of Engineering,
affiliated to Shivaji University, Sangli, MS -416415, India.*

and

Vikas V. Patil

*Assistant Professor, Department of Management Studies,
Bharati Vidyapeeth (Deemed to be University),
Yashwantrao Mohite Institute of Management, Karad, India.*

Abstract

Indian Pharmaceutical is a well-grown industry, being the third largest and a significant GDP contributor in the world. However, the industry encounters many hurdles in marketing life-saving drugs. This includes challenges like high prices, supply shortages, regulatory issues, ethical issues, and awareness, etc. The current study evaluated the marketing effectiveness of Kolhapur District of Maharashtra State in India. The study explored market potential for life-saving drugs, key challenges that hindered the availability and accessibility,

*** Corresponding Author**

perceptions of stakeholders regarding the distribution and availability and emerging trends in pharmaceutical marketing. Major barriers identified were high cost, supply shortages and lack of awareness. In Pharma sector, direct sales and marketing, network establishment through direct sales, are found to be the most effective channels to operate. In pharmaceutical marketing area, personalized medicines, digital patient engagement and direct-to-consumer marketing options also have an opportunity. The researchers advise AI-driven/ML-based marketing and personalized/customized medicine strategies, for future research work.

Keywords: Life-Saving Drugs, Pharmaceutical Marketing, Market Potential

JEL Code : L21, M31, and O17.

Paper Received : 14.11.2024

Revised : 02.05.2025

Accepted : 09.10.2025

1. Introduction

The Indian pharmaceutical industry struggles to market life-saving medicines due to low health awareness and limited education, despite having strong human, structural and physical capital. **Kamath (2008) and Haider et al. (2024)** highlight complex problems in Indian Pharma marketing financial performance, affecting GDP. **Sunyoto T (2024)** reveals ethical challenges related to medical prescription rates in India. **Pathak R (2024)** observed that after the 2005 patent law, India's hypertension market grew 6.9% (2016–2018), with single-pill combos making up 39.1%. **Sahoo SK et al. (2024)** demonstrated that there is a need to recommend initial first-line therapies and careful practice of prescription and treatment. **Noh et al. (2021)** state that generic drugs, despite their affordable treatment, reported higher serious adverse events in emerging economies like India, due to their susceptibility to operations and supply chain cost reduction efforts. **Obi EC (2018)** highlighted the advancement of cancer drug research, highlighting the need for value-based reimbursement, flexible pricing, compulsory licensing, legislative proposals and a 20% research allowance.

According to **Nair (2023)**, Indian pharmaceutical companies should make patented lifesaving drugs, available to all needy patients, at an affordable price. Stakeholders in

healthcare continuously observe the safety of treatments, offering intelligence on mid-term safety, confirming the efficacy of these interventions, as mentioned by **Andreotti F and Crea F (2005)**. **Kumar S. et al. (2024)** and **Galasso A. et al. (2024)** highlight India's small and medium-sized pharmaceutical enterprises' challenges, including monetary constraints, inadequate marketing budgets and weak brands, suggesting solutions like micro-financing and rural sales. **Mascarenhas et al. (2005)** propose an analogical strategic model for marketing lifesaving drugs, blended with profitability and humanitarianism, for combating HIV/AIDS. **McDonell et al. (2024)** specified the need for a regulatory and monetary support ecosystem to support effective treatment. **Niazi SK and Mariam Z (2025)** suggest studying the application of AI for marketing and identifying the market potential of lifesaving drugs in the future.

Despite many advancements in the field, Indian pharmaceutical marketing faces many challenges due to supply shortages, availability, high costs, regulatory issues and ethical issues. Existing studies highlight both opportunities for the sector market as well as challenges faced, thereby reflecting a clear gap in understanding the market and market potential for life-saving drugs, especially in the context of specific regions. By addressing this contextual gap,

profitability with social responsibility, equitable access of life saving drugs to regional market can be improved. This study examined market, and market potential of life saving drugs, to analyse the factors of availability, affordability and effective marketing strategy.

2. Review of Literature

While framing effective marketing strategies, the market is the foundation of the pharmaceutical industry. **Buzzell (1999)** emphasizes that clearly defining the market helps organizations to analyze competition and evaluate performance, which is critical while operating within complex regulatory frameworks. The pharmaceutical industry is utilizing digital and AI strategies to identify trends and value, requiring future research, using TAM frameworks, diverse databases, languages and qualitative methodologies (**Anthuvan T. 2024**). Marketing strategies include direct marketing to healthcare professionals, digital marketing strategies, and educational outreach to patients, to effectively promote their products or services (**Marcus, 2023**).

According to **Mittal and Singh (2010)**, integration of psychographic and social segmentation approaches in life-saving drugs can support target prescribers. **Vyavahare Ritesh et al. (2023)** suggested the need for awareness and education in responsible self-medication, among developing countries. Essential medicines are crucial for health in middle-income countries, with 65% of the population lacking access. Urgent policy actions, bringing all drugs in the National List, procuring bioequivalence-tested drugs and promoting generic medicines (**LavatePatil S, 2023**). Unique forces shape the marketing of life-saving medicines. **Lerer (2002) and MacLennan (2000)** highlight the challenges in pharmaceutical marketing, especially in India, where companies often treat

doctors as primary customers, highlighting the need for strategic marketing approaches.

Accessibility and availability and infrastructure constraint for life-saving drugs, are major concerns in marketing (**Nguyen, Hassali, and McLachlan, 2013**). **The Asia Pacific Conference on National Medicines Policies (2012)** highlights barriers and enabling factors to access medications, applicable to Maharashtra's healthcare challenges. Recent trends in pharmaceutical marketing influence availability and demand (**Zulfikar and Rabbani, 2016**). Increased e-platforms and smart devices exert influence on e-marketing.

Finally, the Indian pharmaceutical industry faces many global challenges. **Darekar et al. (2016) and Kalyani et al.(2022)** highlight the impact of globalization and competition on the Indian pharmaceutical industry, highlighting the increasing involvement of patients in prescribing decisions and the influence of marketing strategies on product, price, promotion, people and process. **Lavate Patil S. et al. (2022)** demonstrated the pharmaceutical marketing's need for combating counterfeit medicines in rural markets, focusing on 'piggyback' distribution models, health camps, and anti-counterfeiting measures, focusing on surveys of super-specialty hospital customers in India (**Jaheer 2022**). This review examined the market potential and challenges of life-saving drugs in India, focusing on factors like pricing, distribution, access and ethical considerations in the pharmaceutical industry.

3. Statement of the Problem

Despite advances in the pharmaceutical industry and government efforts to enhance healthcare infrastructure, access to life-saving drugs, in many regions of India, remains limited and uneven. Maharashtra, one of the most industrialized states, presents a paradox where

high-end healthcare coexists with significant gaps in the availability and accessibility of essential medicines, particularly in semi-urban and rural districts like Kolhapur. While pharmaceutical companies continue to expand their product portfolios and distribution networks, systemic challenges such as supply chain inefficiencies, inadequate prescriber engagement, economic disparities and lack of awareness, hinder the optimal reach and utilization of life-saving drugs. The Kolhapur District, well-known for its agricultural economy and diverse urban and rural populations, is a crucial area for addressing disparities in the market for life-saving drugs. Though there are healthcare facilities, accessibility and availability of drugs are also found challenging due to logistical, financial and behavioral factors. Pharmaceutical companies' marketing strategies often fail to account for regional nuances, further exacerbating the problem. Hence this research work examined these issues and market potential, as well as identified key barriers, enabling policy framework, pharmaceutical marketers and healthcare professionals, to develop more effective strategies.

4. Need for the Study

The health urgency and persistence of healthcare disparities are the main driving forces behind the need for the study. Life-saving drugs are not merely commercial products but they are also critical to saving lives in acute and chronic medical conditions. Any delay or unavailability can result in preventable morbidity or mortality. Diversity in demographic settings, income level and medical infrastructure, necessitates insights into the demand and supply relation market and the marketing potential of life-saving drugs. The study proposed to identify barriers to accessing life-saving drugs in regions, such as affordability, logistical issues, prescriber behaviour and patient perceptions. The study

could empower pharma stakeholders with knowledge, focusing on targeted interventions, awareness campaigns, subsidy models, improved supply chain systems, or region-specific marketing strategies. This systemized effort would reduce disparities and improve the availability and accessibility of life-saving medicines.

5. Objectives of the Study

- ♦ To analyze the market potential for life-saving drugs in urban and rural areas of Maharashtra.
- ♦ To identify the key challenges, that hinder the availability and accessibility of life-saving drugs.
- ♦ To explore the perceptions of stakeholders, regarding the distribution and availability of life-saving drugs.
- ♦ To investigate emerging trends in pharmaceutical marketing and their impact on the market for life-saving drugs.

6. Hypotheses of the Study

H1: There is significant difference in the market potential for life-saving drugs between urban and rural areas of Maharashtra.

H2: The high cost of life-saving drugs is the primary barrier to their availability and accessibility.

H3: Limited distribution channels and supply shortages contribute significantly to the challenges faced by life-saving drugs.

H4: Lack of information about drug availability and regulatory barriers is an additional challenge affecting the market for life-saving drugs.

7. Research Methodology

7.1 Sample Selection:

This study used stratified random sampling, to represent diverse geographic segments of

Kolhapur District, including urban and rural populations. The total population was 5,416 individuals (**District Statistics Office, Kolhapur, 2023**), including healthcare professionals, pharmaceutical marketers, medical representatives, sales personnel and consumers, affected by life-saving drug availability and distribution. The population was divided into two primary strata, based on demographic and geographic classifications:

Stratum 1 (Urban areas)

Stratum 2 (Rural areas)

Let the total population size be represented by N , with N_1 representing the urban stratum and N_2 , the rural stratum, such that:

$$N = N_1 + N_2 = 5416$$

The study employed proportional allocation, to determine the sample size n_1 (urban) and n_2 , (rural), to ensure statistical reliability and proportional representation.

$$n_1 = \left(\frac{N_1}{N}\right) \times n \quad \text{and} \quad n_2 = \left(\frac{N_2}{N}\right) \times n = \left(\frac{N_2}{N}\right) \times n$$

where n is the total sample size, selected for the study.

The study, involving **264 (urban) and 109 (rural)** respondents from Kolhapur District, as depicted in **Table-1**, provides diverse insights into challenges and potential of life-saving drug accessibility, in varying socio-economic and infrastructural settings, ensuring equal probability of inclusion and reducing selection bias.

7.2 Period of Study

Data, collected from June 1, 2023, to February 24, 2024, were considered for the study.

7.3 Sources of Data

Primary data were used for this study. Data were collected through surveys, administered

to business owners, healthcare professionals, marketing professionals, medical representatives, sales and marketing personnel and students.

7.4 Tools Used for the Study

Microsoft Excel was employed for data organization, analysis and hypothesis testing. It supported statistical operations, including descriptive statistics, graphical representation and inferential statistics. Functions such as mean, standard deviation, correlation, t-tests, and regression analysis, were applied to derive meaningful insights from the collected data.

8. Data Analysis and Interpretation

The data analysis began with the measures of central tendency, such as mean, mode, median, standard deviation and confidence intervals, to analyze the distribution of consumer values and identify key challenges in marketing and market potential for life-saving drugs. This was further used to explore the association between variables, using chi-square tests. The urban data analysis, displayed in **Table-2**, reported mean of 4.2595, mode of 5, and median of 4. Negative skewness indicated a left-skewed distribution while positive kurtosis suggested a peaked distribution, with thick tails. The 95% confidence interval for rural responses was wider, indicating slightly more variability compared to urban responses. The rural data analysis showed an average value of 4.1388 and a median of 5, though the value appeared to be an outlier and may require further review. Negative skewness persisted in rural data, along with slightly positive kurtosis, indicating a moderate peak distribution. The confidence level of rural responses was wider, reflecting more variability. These descriptive results pointed to relatively high perceived potential and awareness of life-saving drugs, across both urban and rural regions, with urban participants reporting slightly higher scores.

Figure-1 and Table-2 present insights into the most pressing challenges observed during the study. These findings supported H_2 . High cost and affordability concerns emerged as the most frequent barrier to access, especially among healthcare professionals and business owners. The observations reflected a wider global trend, as mentioned by **Lerer (2002)**. Other challenges included lack of information about the availability of drugs (supporting H_4), as depicted in **Figure 5** and as discussed by **Mittal and Singh (2010)**. Supply deficiencies or stockouts, were more prominent in rural areas, aligning with H_3 , as found by **MacLennan and McKenzie (2000)**. The analysis also identified the imperfect supply systems and regulatory restrictions, as significant barriers, reinforcing H_4 on regulatory challenges, echoing concerns raised by **Darekar et al. (2016)**, on Indian medicinal logistics.

Hypothesis testing was conducted, to check whether there was significant difference in the market potential for life-saving drugs, between urban and rural areas of Maharashtra. **Table-3** outlines the test details, which covered 264 urban and 109 rural observations. The hypothesized mean difference was zero, with a t-statistic of approximately 0.916 and a two-tailed critical value of 1.975. The p-value for one-tailed testing was 0.180, and for two-tailed testing, it was 0.361. Since the t-statistic was smaller than the critical value, the null hypothesis was not rejected, implying that no statistically significant difference was observed between the two regions, which means H_1 was not supported. The urban mean was reported to be 4.2613, and the rural mean was 4.1467, which are relatively close, reinforcing the conclusion of having similar market potential (supporting H_1). The study by **Nguyen et al. (2013)** supports this result across areas, with reasonable levels of cognizance.

To gain insights into market share distribution, in both urban and rural areas, further data analysis was performed. The urban mean rating was 4.2310 compared to 3.8807 in rural areas. This discrepancy revealed notable difference in market share, suggesting that urban areas gained from better infrastructure, stronger brand presence and more robust pricing and promotional strategies. These results supported conclusions from earlier literature by **Buzzell (1999)** and **Zulfikar and Rabbani (2016)**, who emphasized the influence of structured marketing practices (**Figure-3**) in urban pharmaceutical markets and the impact of emerging trends in pharmaceutical marketing (**Figure-4**), on the confidence of stakeholders in the industry. The outcome was found to be consistent with insights from **Khan et al. (2014)** and **Zulfikar and Rabbani (2016)** and underscores the transformative role of e-marketing, digital marketing, and social media marketing, in the pharmaceutical and healthcare management sector, which provided additional support to H_3 and H_4 .

The two-tailed t-test, implemented for two samples, assuming unequal variances of market potential, as shown in **Table-3**, found t-statistic of 0.913 and p-value of 0.360. Therefore, the null hypothesis was not rejected. These findings are supported by the mean values of 4.2613 for urban market potential and 4.1467 for rural market potential. However, for market share assessment, urban areas with a mean rating of 4.2310, were found to have a larger share compared to rural areas, with a mean rating of 3.8807. This revealed considerable disparities in market potential, marketing effectiveness, drug availability, infrastructure and product outreach, between urban and rural areas. The study found that the pharmaceutical market in urban areas significantly dominated due to improved branding, competitive pricing, higher

consumer awareness and better logistics networks. Interestingly, research discovered significant correlation between emerging pharmaceutical marketing innovations and stakeholders' trust. The rejection of the null hypothesis again confirmed emerging trends such as mobile or digital communication, e-retailing and mobile-based promotion. As a result, stakeholder confidence and informed decision-making in the Indian life-saving drug market have increased.

9. Findings of the Study

A study in Kolhapur, India, showed a rising demand for life-saving drugs in both city and rural areas. However, issues like high prices, supply shortages and regulatory hurdles slow down growth. Consumers generally understand product differences and trust life-saving medications, reflecting growing acceptance across regions. Stakeholders in the pharma sector identify the importance of procurement of lifesaving drugs and pricing strategy of these drugs but ethical issues related to prescription practices, marketing ethics, quality concerns etc. still exist. New trends include digital marketing, social media, personalized medicine apps and online platforms. Engagement on social media and direct advertising to consumers are also part of recent marketing strategies.

10. Suggestions

The pharmaceutical industry faces many challenges and to address the challenges faced by the market for life-saving drugs, based on the findings of the research work, a few recommendations could be made. Employing price regulator actions can help to reduce the cost of life-saving drugs. Intensifying supply networks is necessary to reach the underserved and strengthening supply chains will ensure adequate availability of life-saving drugs. Streamlining controlling actions can reduce

barriers to market entry for pharmaceutical companies. It is also important to increase cognizance about the availability and importance of life-saving drugs among healthcare professionals and the public. A layer-wise business model, as depicted in **Figure 6**, is recommended for the combination, classification and prediction of effective drug adoption trends and marketing patterns. The study (**Figure 2**) found that direct sales marketing representatives are the most effective marketing channel for promoting pharmaceutical products, followed by online advertisements, social media and television advertisements while print advertisements, medical events and chemists are the least successful. Educational content was the most preferred message format, followed by emotional appeals and relative advertising, such as superiority claims and testimonial success stories. Emotional appeals ranked second in the list of message formats.

11. Conclusion of the Study

The study identified the challenges in the marketing of life-saving drugs in Maharashtra, particularly in the urban and rural areas of the Kolhapur District. It also stressed the need for impartial pricing, enhanced supply channels and controlling or regulatory support to confirm judicious access to essential lifesaving medications. The study also indicated the need for biosimilars and alliances with healthcare establishments, to overcome financial and logistical barriers. It also suggested enhancing affordability and availability, supply chain management, consistent labelling and integrating patient feedback into decision-making. Modern and smart AI/ML-based drug verification and predictive modelling, can reduce costs. The outcome of the study would be useful to bridge the disparities between urban and rural populations' healthcare availability. Stakeholders

of pharmaceutical marketing can address these challenges and work in collaboration, to ensure life-saving drugs reach those in need. This strategy could help to improve public health outcomes. The study's inferences could be applied beyond Maharashtra, contributing insights into other regions, facing similar challenges in the pharmaceutical market.

12. Limitations of the Study

The study suffered from four limitations:

- 1) It used proportional stratified random sampling, which may limit statistical analysis.
- 2) Its limited scope to the Kolhapur District, which may not be generalizable to other areas due to healthcare disparities, literacy levels and financial conditions.
- 3) The data collection method used was self-reported, potentially introducing response bias.
- 4) Additionally, the study did not include input from key stakeholders like policymakers, hospital procurement officials and public health administrators, which could pose a systemic challenge in accessing and distributing life-saving drugs.

13. Scope for Further Study

Future research can implement machine learning algorithms and predictive modelling in pharmaceutical and healthcare industry, to provide accurate predictions and descriptions in the form of classifications, regression analysis and groupings. Future studies can also focus on implementation of AI-based Real-time sensors and responsive communication through online portals and timely emails to improve patient care. Further, researchers can examine the message content and its format, educational content, marketing tools, cost-benefit analysis and lifesaving drugs pricing options, to improve affordability and availability.

14. References

- Akhtar, G. (2013).** Indian pharmaceutical industry: An overview. *IOSR Journal of Humanities and Social Science*, 13(3), 51–66.
- Andreotti, F., & Crea, F. (2005).** Substandard life-saving drugs: A global concern. *European Heart Journal*, 26(9), 858–860.
- Anthuvan, T., Maheshwari, K., & Dantu, R. (2025).** Trends in pharmaceutical marketing and branding research: A bibliometric analysis (2009–2023). *IIM Ranchi Journal of Management Studies*, 4(1), 55–71. <https://doi.org/10.1108/IRJMS-03-2024-0030>
- Buzzell, R. D. (1999).** *Marketing strategy: Concepts and applications*. McGraw-Hill Professional.
- Darekar, A. B., Zope, J. S., & Saudagar, R. B. (2016).** Current scenario of global and Indian pharmaceutical marketing and management. *Asian Journal of Research in Pharmaceutical Sciences*, 6(2), 95–100. <https://doi.org/10.5958/2231-5659.2016.00013.8>
- Galasso, A., & Schankerman, M. (2024).** Licensing life-saving drugs for developing countries: Evidence from the medicines patent pool. *Review of Economics and Statistics*, 106(6), 1529–1541.
- Haider, R., Das, G. K., Ahmed, Z., & Zameer, S. (2024).** Global marketing of lifesaving drugs: An analogical model. *Asian Journal of Health and Science*, 3(11), 334–347.
- Kalyani, R., & Pandey, R. K. (2022).** Pharmaceutical marketing: A literature review. *International Journal of Engineering and Management Research*, 12(2), 56–63.
- Kamath Bharathi, G. (2008).** Intellectual capital and corporate performance in the Indian pharmaceutical industry. *Journal of Intellectual Capital*, 9(4), 684–704.
- Khan, M. Y., Gupta, P., Dipendu, G. P. B., & Verma, V. K. (2014).** A review of the marketing of OTC drugs. *International*

- Journal of Pharmaceutical and Healthcare Marketing*, 4(1), 1–10.
- Kumar, S., & Devi, M. (2024).** Major driving forces for the Indian SME pharmaceutical industry. *SMART Journal of Business Management Studies*, 20(2), 41–47.
- Lavtepatil, S., & Ghosh, S. (2022).** Improving access to medicines by popularising generics: A study of ‘India’s People’s Medicine’ scheme in two districts of Maharashtra. *BMC Health Services Research*, 22(1), 643. <https://doi.org/10.1186/s12913-022-08022-1>
- Lerer, A. (2002).** The challenges facing the pharmaceutical industry in the 21st century. *Journal of Pharmaceutical Marketing and Management*, 1(1), 1–10.
- MacLennan, A., & McKenzie, R. (2000).** Marketing life-saving medicines: A case study of the pharmaceutical industry. *Journal of Health Economics*, 19(6), 627–645.
- Maitland, I. (2002).** Priceless goods: How should life-saving drugs be priced? *Business Ethics Quarterly*, 12(4), 451–480.
- Marcus, C. (2023, February 17).** Pharmaceutical marketing: How to successfully market in the pharma industry. *Colormatics*. <https://www.colormatics.com/article/pharmaceutical-marketing-how-to-successfully-market/>
- Mascarenhas, O.A., Kesavan, R., & Bernacchi, M. (2005).** Global marketing of lifesaving drugs: An analogical model. *Journal of Consumer Marketing*, 22(7), 404–411.
- McDonell, M. G., Hirchak, K., McCrady, E., Clark, H. W., & Rawson, R. (2024).** Federal policy changes must occur to provide a lifesaving stimulant drug intervention. *Health Affairs Forefront*.
- Mittal, R., & Singh, R. (2010).** Market segmentation for pharmaceutical products: A review. *Journal of Pharmaceutical Marketing and Management*, 1(2), 1–16.
- Nair, G. G. (2023).** India’s options for improving affordable access to lifesaving patented medicines. *Journal of Intellectual Property Rights (JIPR)*, 19(3), 209–217.
- Nguyen, T. A., Hassali, M. A. A., & McLachlan, A. (2013).** The role of life-saving medicines in health systems: A review. *International Journal of Health Policy and Management*, 2(2), 117–128.
- Niazi, S. K., & Mariam, Z. (2025).** Artificial intelligence in drug development: Reshaping the therapeutic landscape. *Therapeutic Advances in Drug Safety*, 16, 20420986251321704.
- Noh, I. J., Gray, J., Ball, G., Wright, Z., & Park, H. (2025).** Are all generic drugs created equal? An empirical analysis of generic drug manufacturing location and serious drug adverse events. *Production and Operations Management*, 34(2), 1–20.
- Obi, E. C. (2018).** Affordable access to cancer drugs and other lifesaving medicines in the United States. *Ethics in Biology, Engineering and Medicine: An International Journal*, 9(1).
- Oxford English Dictionary. (1971).** *Oxford University Press*.
- Pathak, R., Sharma, H., Sachan, N., & Chandra, P. (2024).** Pharma marketing in India: Prospects and challenges. *Pharma Marketing and Pharmacoeconomics*, 6 (December), 295–329.
- Sahoo, S.K., Pathni, A. K., Krishna, A., Moran, A. E., Cohn, J., Bhatia, S., Maheshwari, N., & Sharma, B. (2021).** Antihypertensive drugs market in India: An insight on size, trends, and prescribing preferences in the private health sector, 2016–2018. *Global Heart*, 16(1), 51.
- Sunyoto, T., Potet, J., & Boelaert, M. (2018).** Why miltefosine—a life-saving drug for leishmaniasis—is unavailable to people who need it the most. *BMJ Global Health*, 3(3), e000709.

- Vyavahare, R. D., Maniyar, M. G., Khuspe, P. R., Naiknaware, A. S., More, V. V., Landage, A. V., & Dhandore, S. S. (2023).** Assessment of students at pharmacy colleges in the Kolhapur district of Maharashtra, India, in terms of their knowledge, attitudes, and practices (KAP) towards responsible self-medication. *Indian Journal of Pharmacy Practice*, 16(3), 213–216.
- Weaver, D. F. (2024).** Chemists invent drugs, and drugs save lives. *ChemMedChem*, 19(12), e202400074.
- Zaheer, A. (2023).** Analysing the impact of customer engagement on the relationship between customer loyalty and service quality: A study of the healthcare sector. *SMART Journal of Business Management Studies*, 18(2).
- Zulfikar, Z., & Rabbani, M. R. (2016).** Pharma B2C e-marketing trends – Developed market vs. developing market. *International Journal of Pharmaceutical and Healthcare Marketing*, 5(1), 1–8.

Table-1: Population Size and Sample Size of the Study

District	Total	
	N _i	N
Urban area Kolhapur	3831	264
Rural area of Kolhapur	1585	109

Source: Compiled by the Researcher.

Table-2: Increases in Potential Consumers for Life-Saving Medicines

Statistical Measure	Urban	Rural
Mean	4.260	4.139
Standard Error	0.053	0.114
Median	4	5
Mode	5	5
Standard Deviation	0.854	1.188
Sample Variance	0.729	1.410
Kurtosis	2.504	0.874
Skewness	-1.418	-1.365
Range	4	4
Minimum	1	1
Maximum	5	5
Sum	1116	447
Count	262	108
Largest(1)	5	5
Smallest(1)	1	1
Confidence Level (95.0%)	0.103889931	0.226543957

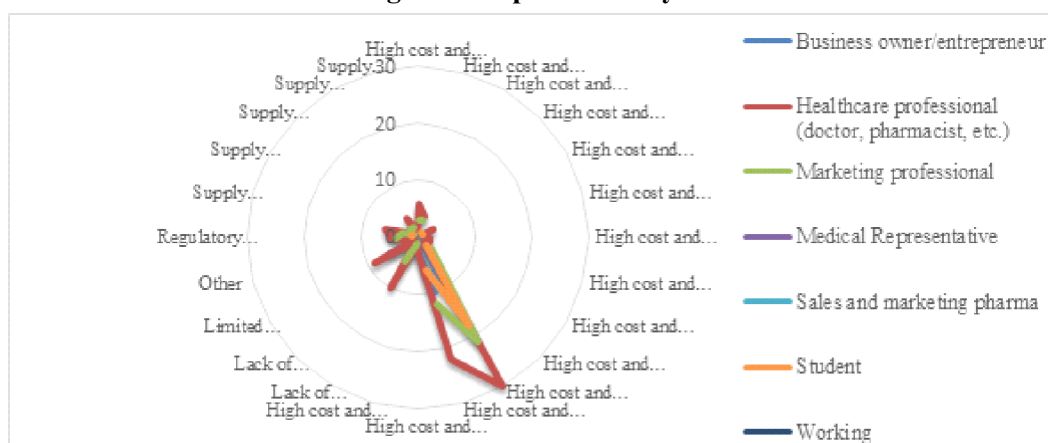
Source: Primary Data and Computed using MS Excel

Table 3: Two-Sample Assuming Unequal Variances Market Potential

Test	Urban	Rural
Mean	4.261	4.147
Variance	0.726	1.404
Observations	264	109
Hypothesized Mean Difference	0	
Df	156	
t Stat	0.916	
P(T<=t) one-tail	0.180	
t Critical one-tail	1.655	
P(T<=t) two-tail	0.361	
t Critical two-tail	1.975	

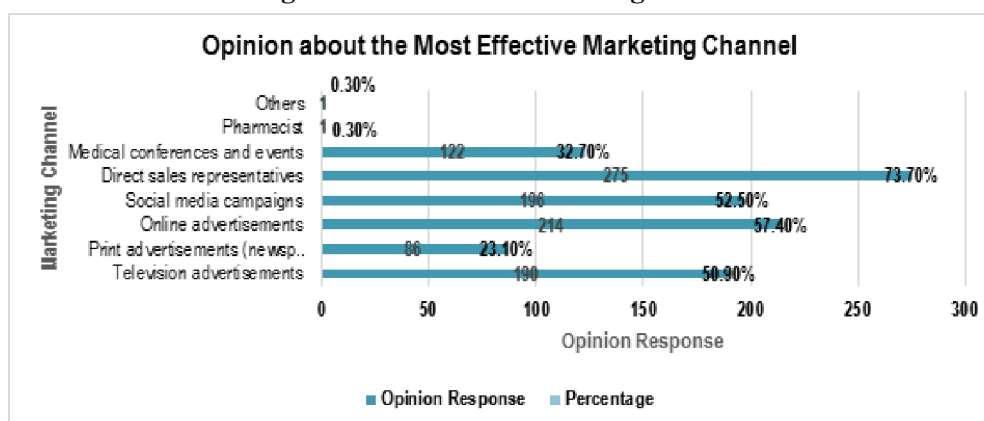
Source: Primary Data and Computed using MS Excel

Figure-1: Opinion Analysis



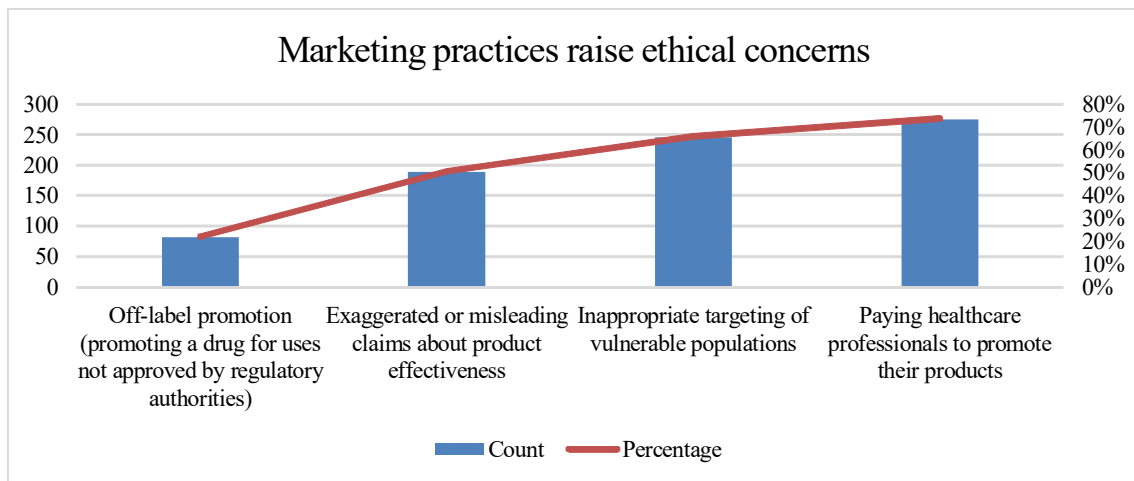
Source : Primary Data and Computed using MS Excel

Figure-2: Effective Marketing Channel



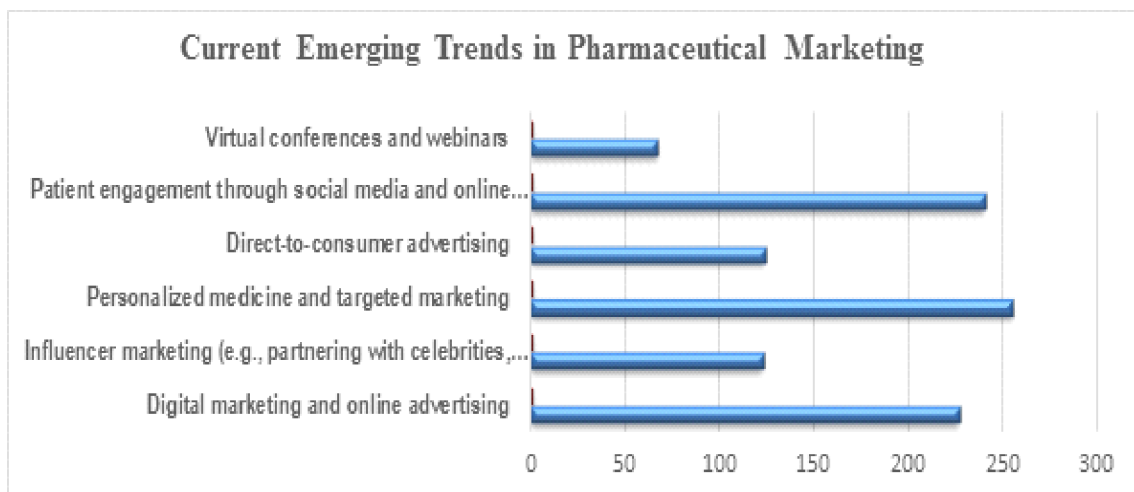
Source : Primary Data and Computed using MS Excel

Figure-3: Marketing Practices Raise Ethical Concerns



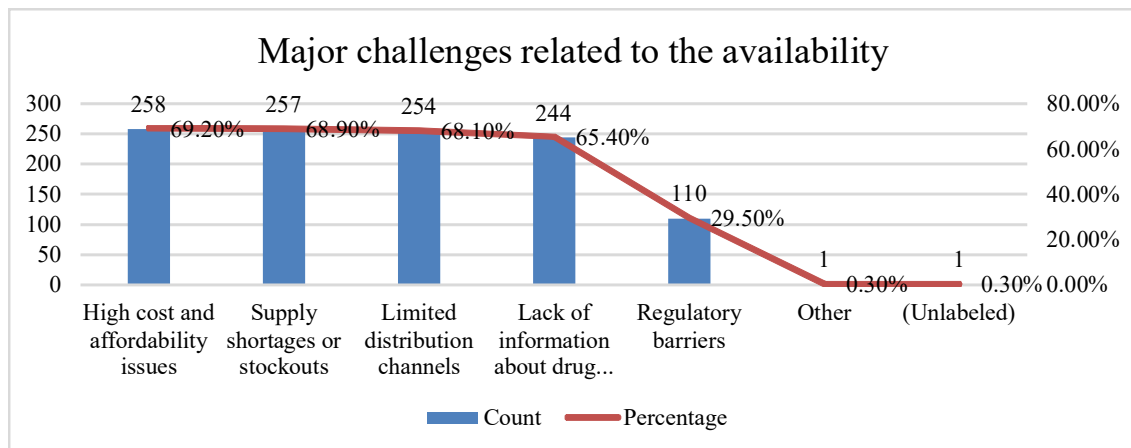
Source : Primary Data and Computed using MS Excel

Figure-4 : Current Emerging Trends in Pharmaceutical Marketing



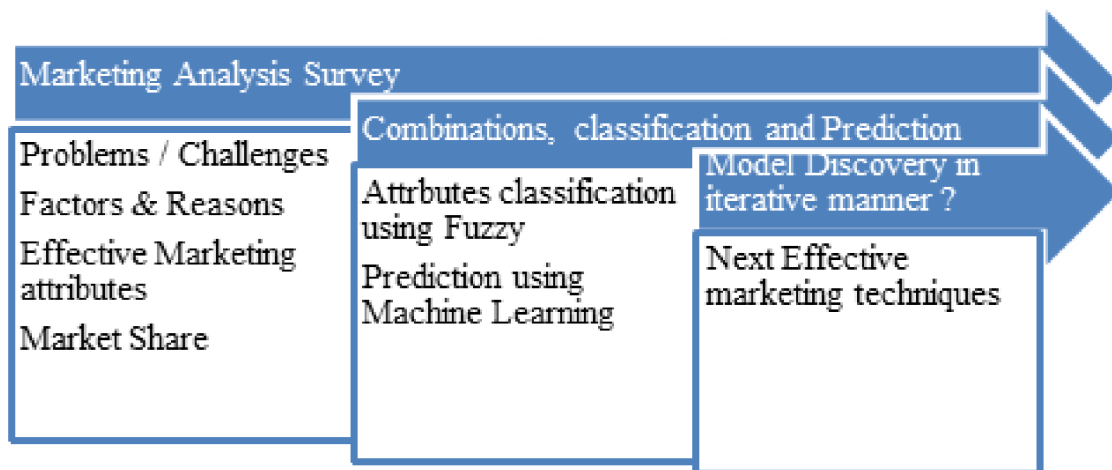
Source: Primary Data and Computed using MS Excel

Figure-5: Major Challenges Related to the Availability of Life-saving Drugs in the Market



Source: Primary Data and Computed using MS Excel

Figure-6: Business Model



Source: Primary Data and Computed using MS Excel