

Scanning the impact of pharmaceutical marketing on doctors' prescribing behaviour amidst post covid era: A critical review

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Abstract: Indian pharmaceutical industry is one of the most prominent industry in the world. It is one of the highest producers & distributors of medicines. Likewise, Indian pharmaceutical market has distinct features, and for the companies who wanted to promote their products in Indian market, have their own opportunities and limitations.

There are only few sectors which have flourished in Covid-19 period and pharmaceutical industry is one of them. Therefore, implementing correct pharmaceutical marketing strategy has been the need of hour to ascertain maximum benefits.

Purpose: This paper analyses the role of pharmaceutical marketing on prescribing behaviour of doctors worldwide.

Methodology: For this purpose, qualitative approach of literature review is used.

Finding: The finding reveals that there are several strategies used by pharmaceutical companies for the promotion of the branded medicines, which have a strong influence on the prescribing behaviour of doctors.

Keywords: Pharmaceutical marketing, prescribing behaviour, Covid-19 period.

1. Introduction

The Indian pharmaceutical industry is considered to be at 3rd rank in the world in terms of volume and rank 14th in terms of value. The Indian medicines are less in price and high in quality and therefore they are preferred globally. Pharmaceutical sector contributes significantly towards the GDP of the country, and it also forms an important component of the India's foreign trade. India is recognized as a premier pharmaceutical manufacturing country (Annual report 2020-21, Department of pharmaceuticals, Ministry of chemicals and fertilisers, Government of India).

Health is characterized as both a source and a consequence of economic development, and the pharmaceutical sector is specifically identified as an entity that may lead to the economic growth of India in the "UN Millennium Development Goals" (Mishra & Raveendran, 2011). The pharmaceutical industry is recognized as the "lifeline" business since its supplies serve an important part in alleviating the pain of ailing people. It also contributes significantly to the stability of any economy by producing employment for millions of people and increasing export revenues (Chaudhuri, 2013). The Indian pharmaceutical industry includes a diverse combination of organized and unorganized enterprises. Organizations vary from major corporations that are either subsidiaries of multinational corporations or completely owned by Indians to small and mid-sized businesses (Akhtar, 2013).

Many big & renowned pharmaceutical companies such as Sun Pharma, Dr. Reddy's, Cipla, Aurobindo, Torrent pharma, Lupin, Zydus and others are operating in India. Therefore adoption of correct pharmaceutical marketing strategy is very important in current situation of intense competition and hence effective pharmaceutical promotion becomes an essential for the pharmaceutical companies in India.

Innovation has a significant place in marketing. After the advent of Covid -19 situations have changed substantially and there is a huge opportunity in every industry. It is the correct time to make a strategic move, and currently there is a huge opportunity for innovation in marketing after Covid-19 (Rakesh k. Pillani,2020).

2. Problem statement and objective

This change has made us examine the role of pharmaceutical marketing on the doctor's prescribing behaviour in India. Therefore two research questions for this study are:

RQ1 : What are the various key strategies adopted by pharmaceutical companies in India for influencing the prescribing behaviour of doctors?

RQ2 : Which is the most influential strategy for enhancing the prescribing behaviour of doctors towards a particular branded medicine ?

Therefore, the objective of this paper is two fold :

1. To highlight the various approaches used by pharmaceutical companies to influence the Indian doctor's prescribing behaviour.
2. To identify the most influential marketing promotion techniques enhancing the prescribing behaviour of Indian doctors.

3. Methodology

3.1 Review design

Considering the two main purposes of the paper, literature review of various past studies in the field of pharmaceutical marketing is considered. Hence the approach is qualitative in nature.

For carrying the review of literature, an in-depth search was conducted in the following databases- EBSCOHOST, Web of science & Google Scholar. For selection of the papers, several keywords such as pharmaceutical marketing, prescribing behaviour, pharmaceutical promotion were used.

Paper type : Literature review

3.2 Review structure

For answering the research questions of this study many research papers were screened during the initial phase, but applying the exclusion inclusion principle based on several factors 21 papers were finally selected under review process. These papers are of mixed type - theoretical and empirical whose distribution is given in the fig 1.

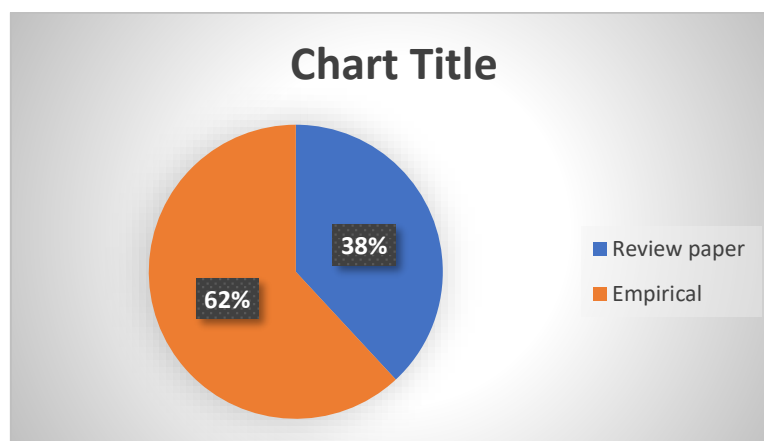


Fig 1: Distribution of review paper and empirical paper under study

These papers are collected in between the time frame of 2002-2020 and the distribution of the papers year wise is given in fig 2.

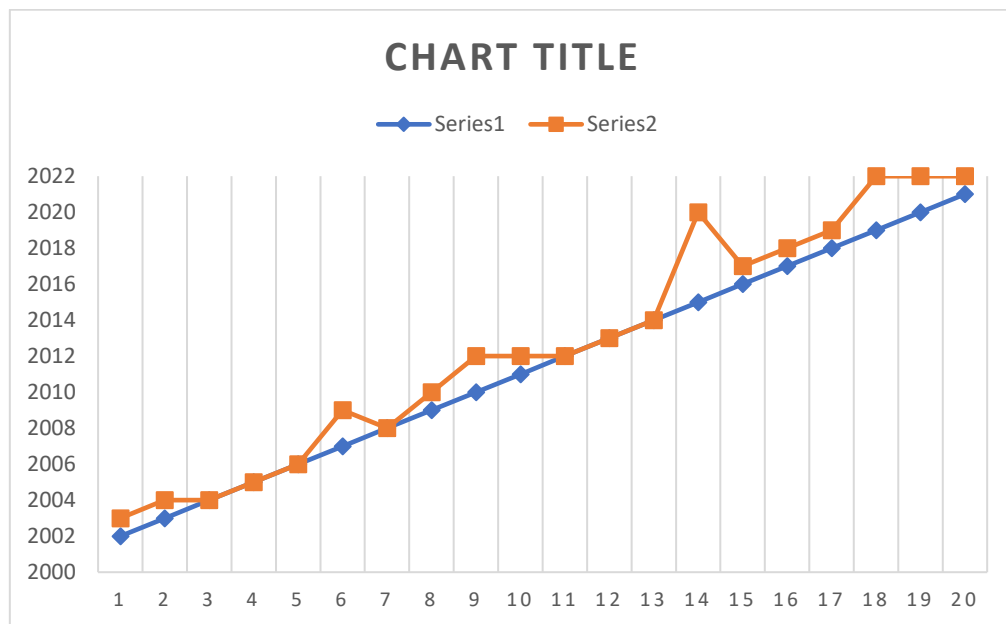


Fig 2 : Year wise distribution of reviewed papers for period of 2002-2022

Out of 21 papers selected for the review process, 62% are empirical in nature and the research of these are conducted in different countries, for which the distribution is given in fig 3.

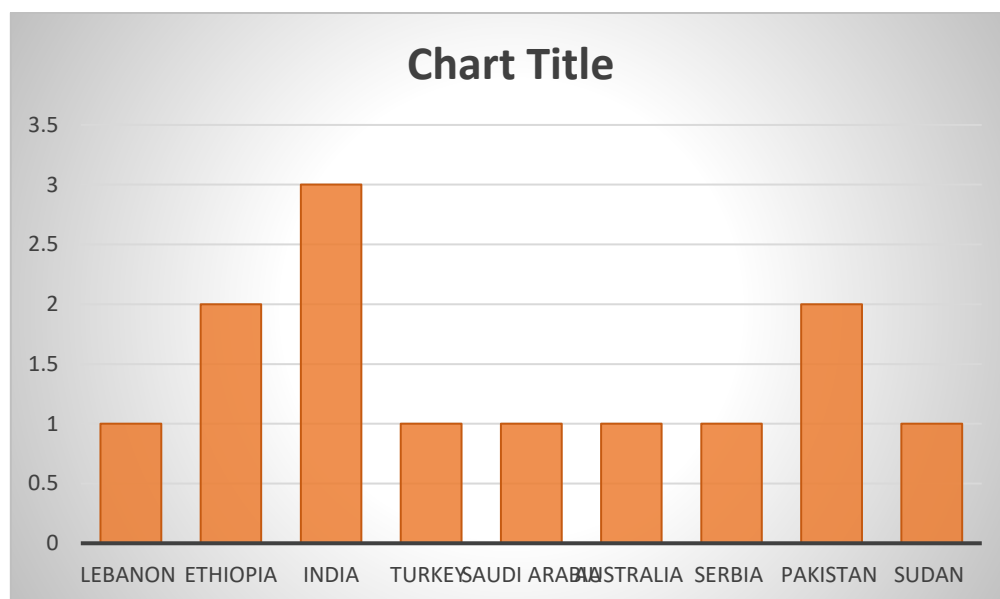


Fig 3: Studied population by empirical studies

4. Interpretation & Analysis of results

Finally selected papers are reviewed very thoroughly in reference of the RQ1 & RQ2 of the study and complete review of literature is provided in table 1.

Table 1 : Brief overview of key studies & findings of the reviewed papers

| Citation | Type of paper | Major research focus | Key Findings |
|----------------------------------|-------------------|--|--|
| Jeremy A. Greene et al.,2007 | Review | To examine the role of pharmaceutical marketing on prescribing physician | Positive impact of pharmaceutical marketing is reflected on the prescribing behaviour of doctors |
| Joan Buckley,2003 | Review | To review the various practices of pharmaceutical marketing and their impact on doctors' behaviour | Presented various examples of pharma marketing practices and their impact. It revealed mixed response. |
| Nabeel Akhtar et al.,2015 | Empirical | To study the perception and impact of social media on prescribing behaviour in Pakistan | Results clearly suggest that there is an impact of social media, by which pharmaceutical marketing gets strengthen. |
| Geoffrey K. Spurling et al.,2010 | Systematic Review | To study the relationship between pharmaceutical companies promotion and physicians' prescribing behaviour | Variables such as visits of pharmaceutical sales representative visits, advertisements in journal, pharmaceutical sponsored meetings were identified impacting majorly on prescribing behaviour. |
| Rabiatul S. Md Rezal et a.,2015 | Systematic Review | To assess current knowledge in the field of pharmaceutical marketing. | Study suggest that physicians lack adequate information regarding medicines and it is filled by the use of pharmaceutical |
| Serhat Vancelik et al.,2007 | Empirical | To study the impact of pharmaceutical promotion of physician prescribing behaviour in eastern Turkey | This study suggest that majority of the prescribing occurred due to the knowledge provided by the sales representatives |
| Paul A.Komesaroff et al.,2002 | Empirical | To study the issues related with pharma practitioners and Pharma industry | Medical representatives play an important role in conveying product related information to doctors thereby increasing their prescribing behaviour |

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|---------------------------------|-------------------|--|--|
| Noordin Othman et al.,2009 | Systematic Review | To review the effectiveness and quality of advertisements in the field of Pharmaceutical and their impact | This review suggested that there is a low quality of journal and this a global concern . |
| Ishak A. Y. Ibrahim et al.,2015 | Empirical | Which is the most effective method used by medical representatives for reminding the physicians in Saudi Arabia | Result indicates that sales representatives are the best source of providing information to physicians influencing their prescribing behaviour. |
| K.Gyaneshwari et al.,2015 | Empirical | For studying the factors affecting physicians' prescription practices in India | Product quality and public relations came out to be the most effective method influencing prescribing behaviour. |
| Mulugeta Nagesh et al.,2017 | Empirical | To study various pharmaceutical promotional strategies affecting physician's prescribing behaviour in Addis Ababa, Ethiopia | Pharmaceutical companies need to invest more on sales promotion and less on public relation. |
| V. Dickov et.al,2011 | Empirical | To address the various issues in applying pharmaceutical marketing in Serbia | Respondents agree that marketing has a place and there is a requirement of information flow from industry to physicians. |
| May Alowi et al.,2019 | Empirical | To identify most effective promotional technique to be utilised for influencing the prescribing behaviour of physicians in Sudan | Research suggest that demographic factors such as age, income, gender plays an important role in moderating the research and relationship with doctors is the most effective method. |
| Fazle Malik et al.,2018 | Empirical | Investigating the influence of pharmaceutical marketing on prescribing behaviour of doctors in Pakistan | Results depict commitment of physician towards personal benefits |

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|-------------------------------|-------------------|---|--|
| Rugmini Warriar et al.,2010 | Systematic Review | For systematically reviewing the various factors of pharmaceutical marketing on prescribing behaviour of physicians | On accessing the samples, it is found that physicians are more prone to heavily advertised drugs |
| Mohsen A. Murshid et al.,2016 | Review | For studying the relationship between pharmaceutical promotional strategies and prescription behaviour | Significant relationship between marketing promotional techniques on prescribing behaviour of physician |
| Vishavadia Krunal et al.,2020 | Empirical | For realising the impact of pharmaceutical promotional tools on prescribing behaviour of doctors in India. | It identified the impact of four variables, medical representative, continuing medical education, medical camps, customer relationship management on doctors prescription behaviour. |
| Dhara Parekh et al.,2015 | Empirical | To investigate the impact of digital pharmaceutical marketing in India | Result indicates a significant impact of digital pharmaceutical marketing in India |
| Michael A.Erdek,2020 | Review paper | To learn what health professionals should know about the influence of pharmaceutical marketing on prescribing | There is a requirement of strong relationship between physician and industry but undue influence on prescribing behaviour should be avoided. |
| Micheline khazzaka,2019 | Empirical | Finding correlation between various marketing strategies and physician prescribing pattern in Lebanon. | Studies revealed that pharmaceutical marketing strategies and prescribing behaviour of physicians are correlated. |
| Abel D. Hallu et al.,2021 | Empirical | Finding the impact of pharmaceutical marketing mix strategies on prescribing behaviour of physicians in Ethiopia | There is a significant impact of pharmaceutical marketing mix on the prescribing behaviour of doctors in public and private hospitals in Ethiopia |

Table 1 Contd.

Above studies clearly shows that there is a strong relationship between the industry and doctors. Various methods of pharmaceutical promotion such as sales promotion which includes samples to be provided, personal relationship of medical representatives, continuing education provided by industry to doctors through medical camps, e-detailing, etc are used by pharmaceutical industry to influence the prescription behaviour of doctors worldwide. Study also suggests that the relationship of medical representatives with the doctors seems to influence their prescribing behaviour the most, yet it should be conducted as per to ethical guidelines. Integrating all the studies a conceptual model is suggested for the relationship between the pharmaceutical marketing strategies and prescribing behaviour of doctors in fig 4.

Integrative framework

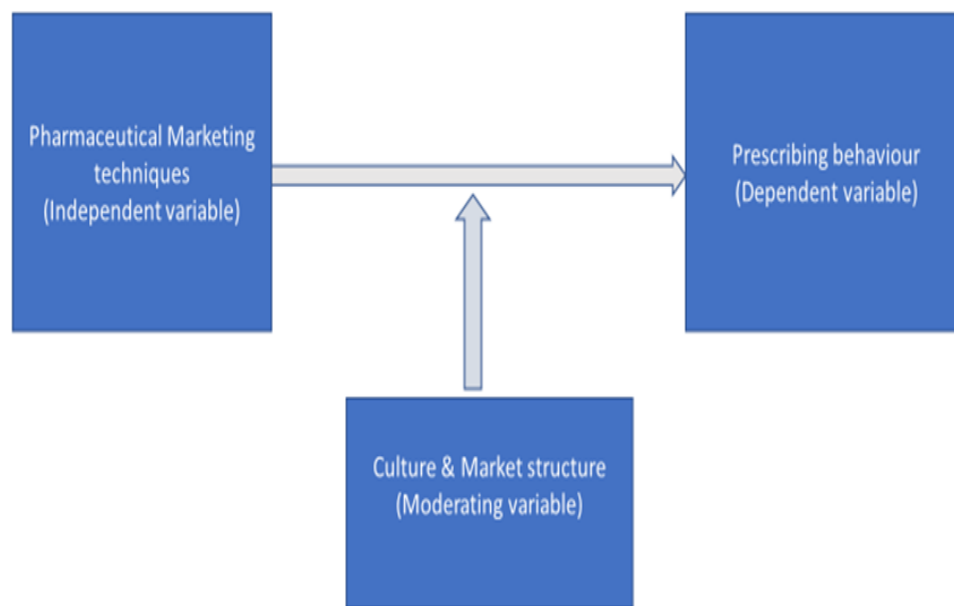


Fig 4: Conceptual model developed after literature review

5. Conclusions

This study clearly suggest that pharmaceutical marketing strategies produces strong positive impact on the prescribing behaviour of doctors . Pharmaceutical companies in India pay a lot of money and effort in promoting their medicine due huge market structure. Pharmaceutical companies should strategically allocate their budget in sales promotion techniques directed towards the doctors in India.

6. Implications

6.1 Theoretical implications

Academicians can acquire holistic knowledge related to various pharmaceutical marketing strategies used during the period of two decades and can be used for a strong conceptual understanding.

6.2 Practical implications

Practitioners can include the above analysis as part of their research & development, generating a correct decision making in selecting the form of pharmaceutical marketing strategy thereby increasing influence over the prescribing behaviour of doctors, resulting in increase of sales. **6. Research relevance**

Academic relevance: It will provide a holistic insight in the field of pharmaceutical marketing and its possible effects.

Managerial relevance: Conclusion of this research can be used for developing good marketing strategy by pharmaceutical companies, for better influencing physicians prescribing behaviour

7. Limitation of the study & direction for future research

As with any review of literature study, the limitation of this study is same, i.e., this results only give the generic study of various pharmaceutical marketing strategies and their impact on the prescribing behaviour of doctors. The direction for future research leads to empirical study on the doctors as respondent, concentrated geographically in several parts of India.

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