

## MAPPING OF ONLINE PHARMACEUTICAL MARKETING PRACTICES: REVIEW OF LITERATURE

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### ABSTRACT

India has now seen pharma players taking the e-commerce route, with an intention to offer a solution to a number of problems, plaguing the retail pharmacy industry. The development of internet has transformed the process of consumer choice, in every spectrum of market. In health care system, it generated a paradigm shift, in finding information on health care services, identifying care providers, health professionals, online supply of medicines and other health products. The commercial focus of health care, also adopted the pre- buying habit of comparing goods and services, on the internet. Online pharmacies are the upcoming open source for the public to search for information and access diverse selections of medicines and other health related products. The development of websites with multiple user friendly features is another phenomenon, which the consumers are in a place to adopt new behaviors of health access and make health care decisions.

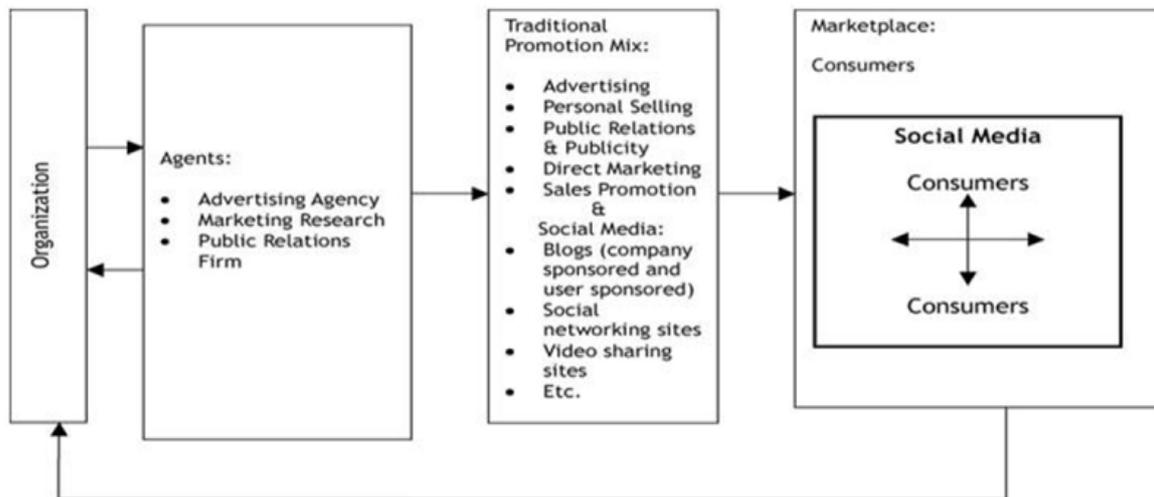
**KEYWORDS:** Pharmacy Industry, Health Care, Identifying Care Providers, Health Professionals, Other Health Products

### INTRODUCTION

Evolving social media marketing in pharmaceutical industry has a wide range of marketing methods, which many companies believe that, they can address more target patient groups. These marketing campaigns include not only traditional media, but also other mass media and social media, to reach patients personally. More and more companies are utilizing social media marketing, to boost up online population for promoting a positive image, by adapting tools like communication, education, collaboration and entertainment.

It was found in a survey of 20 Indian drug makers that, the Indian Pharmaceutical Industry is sweeping across Rs.1036 billion market shares and is entering into the digital waves of promotions (Prabha Raghavan, 2016). The study also found that, Mobile Apps and Social Media are playing a wider role in this industries' growth. Companies are very well emphasizing, on monitoring the discussions going online, about the products. In U.S, the companies who depend on copyright and trademark recognition presently engaged in brand-protection activities through litigation and surveillance. Even, the hospitals use social networks for promoting and to measure consumer experiences with organizations. It was found that in US among 5000 hospitals; more than 700 of them use social media and social networking to enhance their ability to market services to stakeholders and customers (Jeremy, 2010). The survey on 'Health care consumers' suggests that health insurance and manufacturers are the least trusted sources of health information, with approximately 1/3rd respondents indicate that they have no trust on the information provided by the organization (Deloitte Center for Health Solutions, 2010). But the pharmaceutical industry is to be built in such a way that it is mandatory to communicate with its

customers about the side effects and possible adverse situations associated with their products also.



**Figure 1**

Chart shows the idea of the communication strategy used by the pharmaceutical companies

**Source:** <http://globalresearchonline.net/journalcontents/v32-1/20.pdf>.

In the global scenario, the pharma industries try to communicate their pharma products, through advertising and direct selling and finally utilizing social media, where more emphasis is given to online branding and the usage of technology, for promotion.

### **Why Social Media has revolutionized the Marketing Practices**

“The philosophical and technological foundations of web 2.0, allow the creation and exchange of user-generated content, where a group of internet based applications structure on”, is considered to be Social media (Kaplan & Haenlein, 2010). It has many advantages that help to develop and foster the connection between the businesses to consumer and strengthen the relationships in timely and at low cost manner (Kaplan & Haenlein, 2010). This social media has an uniqueness and its immense popularity revolutionize marketing practices especially in advertising and promotional activities (Hanna, Rohm, & Crittenden, 2011) and patterns of Internet usage (Mangold & Faulds, 2009). Consumer Behavior is also influenced by social media, by acquiring information from the post purchase behaviour of consumers, such as dissatisfaction statements or behaviors (Ross et al., 2009 and Laroche et al., 2012). To gain an increased sense of intimacy with the customers, companies use social media websites as an opportunity to engage and interact with them, which especially creates consumer loyalty (Mersey, Malthouse, & Calder 2010). Most prompted industry leader’s state that, the higher level of efficiency of social media, in comparison with other traditional communication channels, should participate in Facebook, Twitter, MySpace, and others, in order to succeed in online environments. Thus, more industries try to benefit from social media, as they can be used to develop strategy, accept their roles in managing others’ strategy or follow others’ directions (Williams & Williams, 2008).

A very few corporate social networking websites, allow consumers to not only exchange information about products or services, but also engage in co-creating value, in online experiences with offline outcomes, with both current and potential consumers. Thus, more industries try to benefit from social media, as they can be used to develop strategy,

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### **Use of Digital Platforms by Pharmaceutical Companies in India**

With the advent of technology, Indian pharmaceutical companies are relying, on different means to market their products which include "direct-to-consumer advertising" (DTCA). Besides, social media is extensively used to provide information, about dietary supplements and pharmaceuticals. With the introduction of devices, such as smart phones, coupled with government and private sector initiatives, the Internet is reaching almost every nook and corners of the country. Technology can help in meeting the healthcare objective of India (Market Research Report, 2013). In the present scenario, 120 million of populations are the active internet users and 900 plus millions are mobile phone users in India (Dinesh Chindarkar, 2015). Though, online medicines look like a promising trend today, the business is challenged by regulatory issues. The developments in the pharmaceutical segment offer new ways, for individuals to online purchases of health products and medicines. Almost, 31 start-ups related to online pharmacies were launched in 2014, with the major chunk of investment, announced by pharmaceutical companies like Netmeds (\$60 million), followed by IMG (\$6 million) and Zigy (\$3.2 million). This industry market, estimates to be generating 3,000-4,000 orders on a daily basis (Supriti, 2015). It is expected that, the online pharmacy model could account for 5-15%, of the total pharma sales in India, largely by enhancing adherence and access to the medicines, for a lot of the under-served population.

#### **Direct to Consumer Advertising (DTCA):**

Online pharmacy is an Internet-based vendor of prescription drugs, and the term encompasses both legitimate and illegitimate pharmacies. The sale of medicines outside the regular retail pharmacy is not new. It has just flourished in this Internet age. The debate on the benefits and negative impact of "direct-to-consumer advertising" (DTCA) has been going on around the globe and India too has not been left behind in the debate. Many studies on this issue have been given many suggestions and recommendations for consumption of medicines due to DTCA. DTCA is now the most prominent type of health communication that, the public encounters across the globe (Ventola, 2011). Historically, for DTCA, advertisers have used the traditional mass media: radio, television, newspapers, magazines, billboards and now these are rapidly being replaced, by more popular and emerging forms- of electronic media. Since, the rise of the Internet the role of consumers and corporations has changed, significantly.

DTCA, also includes advertisements on Internet websites, search engine marketing, social networking sites and mobile phones. YouTube give consumers platform to voice opinions about products and brands. Internet affords a comfort level that encourages individuals to share details about their symptoms, treatment history and experiences with their doctors, the efficacy and side effects of medication, the impact of their condition on their own lives and more. At the same time, the ubiquity of the internet can provide a connection between experienced patients and someone newly diagnosed (Davies, M. 2008). The most DTCA gave consumers more time to absorb facts about benefits than risks, which could have implications for the "fair balance" requirement (Kaphingst, et al. 2004). DTCA uses both medical and lay terms to convey medical ideas, suggesting that consumer-friendly language is not used to communicate all information in the advertisements, as urged by FDA (U.S. FDA, 1999). Murray et al. (2004) have mentioned that DTCA has positive and negative effects on health behaviors, health service utilization and the doctor-patient relationship with a greatest impact on people of low socioeconomic status. A major study in Britain by Taylor Nelson Research (1990) found that consumers usually recall fewer than 3 messages from an advertisement. Those in the study who viewed television commercials

containing the full label text from a nonprescription medicine could not remember the details. In addition, detailed information significantly decreased the recall of the main messages concerning the medicine's name and purpose. Viewers of full-text commercials were more likely to describe them as 'confusing', 'complicated', 'unclear' and 'having too much information'.

Pharmaceutical companies engage the consumers in social media differently from Television and other traditional advertisements. Most discussions, related to branded Direct To Consumer (DTC) campaigns, take place on blogs and forums. The emotional and psychological toll of the condition is touched upon frequently (Kantar Media Cymfony study, 2011). DTC posts increase with new campaigns; campaign frequency; launch of a key partnership with a celebrity; and unique story lines. This trend is particularly visible in patient-generated posts on Facebook and Twitter. The US based study by (Cymfony, 2011) also shows that, most of the search is related to general medicines, but not based on brand. Among all diabetes forum posts in 2009 and 2010, unbranded diabetes discussion carries 92% and branded discussion was only 8%. The companies campaign several products, using conveying messages online.

Many successful social media campaigns were found, to be in the area of pregnancy, childcare, oncology and geriatrics (Supriti Agrawal & Navjot Kaur, 2015). Internet sites claiming to sell authentic Viagra, shipped counterfeit medication 77% of the time; counterfeits usually came from non-U.S. addresses and had 30%-50% of the labeled API (active pharmaceutical ingredients) claim. Caution is warranted, when purchasing Viagra via the Internet (Campbell, N, 2012). The online health information & DTC Campaigns, greatly influenced the health discourse of the consumers.

The awareness about social media marketing amongst doctors and patients was 76 % and 31.2 %, respectively. Patients have begun to question the decisions of the doctors, cross check their prescriptions on internet and pressurize doctors to prescribe the drugs about which they have read on the internet. Also, a matter of concern for the doctors was the authenticity of the content of social media, which may lead to improper and irrational use of self medication by the patients (Gupta and Udupa, 2011). In November 2011, Merck agreed to pay a fine of \$950 million related to alleged illegal promotion of the pain-killer Vioxx, which was withdrawn from the market in 2004, after studies concluded the drug increased the risk of heart attacks. The market for digital products and services remains hot. The mobile health market, for example, is set to reach \$26 billion by 2017; moreover, there are almost 20,000 health-related mobile apps on Apple iTunes, 3 and remote patient monitoring devices are one of the fastest growing markets in the world.

### **Impact of Online Pharmaceutical Marketing:**

It is evident in US that there are number of ways medicines can be corrupted. They could be stored improperly at wrong temperature or replaced with limitations that seem to be same but are instead contaminated with unsafe materials like road paint or drywall. There are chances that the expired dates could be altered to make it seem valid. Andrew Strempler (2013), a canadian online pharmacy founder RxNorth was imprisoned for 4 years, for selling medicines that were falsely claimed that "in compliance with regulations in Canada, the United Kingdom and the United States". It was discovered that stempler is selling medicines labeled as "Canadian", which actually came from other parts of the world (Nicole Longo (2017)). The major risk involved in online pharmacies is drug misuse. Even when these social media is emphasising on the impact of consumer to consumer conversation methods, shaping those conversations have not been yet articulated. A high recommendation of madatory Prescription and use of online questionnaires, may be linked to avoiding

the physician and hence, to the possible misuse of drugs.

In addition technology failure (e.g., breaches in the system) or human error (e.g., data entry mistakes) is another set of risk, involved in online pharmacy purchases. The most frequently cited risks associated with online purchasing of medicines include product risk (e.g., the product is of the same quality as viewed on the screen), convenience, (e.g., understanding on how to return the merchandise that is ordered) and non-delivery risk (e.g., whether the product be delivered or not) (Bhatnagar et al., 2000).

Another perspective of understanding shows that, there happens to be many websites that are notified as legally and offer convenience, privacy, and safeguards for purchasing medicines. But in this race several “rogue websites” where they sell potentially dangerous drugs, which have not been checked for safety or effectiveness. Those rogue sites look professional and legitimate, but in real they are operating illegally. They sell unapproved drugs, drugs that contain the wrong active ingredient, drugs that may contain too much or too little of the active ingredient, or drugs that contain dangerous ingredients. For example, FDA bought and analysed several products online such as Tamiflu (oseltamivir). In one of the orders the tablets which arrived with a postmark from India in an unmarked envelope, consisted of unlabeled white tablets. These tablets were found contain talc and acetaminophen, but none of the active ingredient oseltamivir. FDA also became evident that number of people who place orders online for the following products receive the drug as was ordered, but several customers received products containing which are identified as foreign versions of Haldol (haloperidol), a powerful anti-psychotic drug.

- Ambien (zolpidem tartrate)
- Xanax (alprazolam)
- Lexapro (escitalopram oxalate)
- Ativan (lorazepam)

As a result, these customers needed emergency medical treatment, for symptoms such as difficulty in breathing, muscle spasms, and muscle stiffness—many problems occur with haloperidol. Several other websites sell counterfeit drugs, which may look exactly like real FDA-approved medicines, but their quality and safety are unknown. There happen to be many cases that, purchase of online pharmacies have many benefits, but at the same time several threats that, customers should be cautious in purchasing of medicines online.

### **Online Pharmacies and Regulatory Issues**

There are no well-defined dedicated laws for online pharmacies. The laws applicable are Drug and Cosmetics Act 1940, Drugs and Cosmetic Rules 1945, Pharmacy Act 1948 and Indian Medical Act 1956. Laws related to e-commerce are defined under the “Information Technology Act, 2000.” The Drugs and Cosmetics Act do not allow home delivery of drugs. The Drugs and Cosmetics Act, 1940, and the Drugs and Cosmetics Rules, 1945, have clear guidelines on the sale of Schedule H and Schedule X drugs, which are “restrictive drugs” and can be sold only on the prescription of a registered medication practitioner (Sharma, 2015).

Schedule X drugs include narcotics and psychotropic substances. Chances of drug abuse and addiction are higher with the Schedule X category. Schedule X drugs require meticulous storage and dispensing records. The prescription has to

be in duplicate and one copy of which is to be retained by the licensed pharmacist for 2 years (Sharma, 2015). However, a basic level legal e-commerce framework has been provided by the Information Technology Act, 2000 (IT Act 2000) that is the cyber law of India. When technology is used for medical purposes, it gives rise to medico legal and techno legal issues. Individuals and companies selling pharmaceutical products through the website are also required to comply with various laws. These include laws related to medicines and pharmacy profession and cyber law of India. Surprisingly, most of the online pharmacies stores and websites in India are not aware of the cyber law, due diligence requirements and Internet intermediary liabilities. As a result, they are violating the provisions of IT Act, 2000 (Ramesh, 2015). To manage the increased use of online pharmacies, however, more regulations are being proposed, including the Online Pharmacy Safety Act and the development of state-run online pharmacy programs (National Alliance for Model State Drug Laws, 2009). The lack of regulations or little regulations of online pharmacies raises a number of safety concerns for consumers in distribution, information, and medication-related issues. Distribution issues include damaged packaging that exposes pills to light and moisture, shipments that do not meet manufacturer specifications such as temperature-controlled or insulated packaging, and the ability of the consumer to reorder as many pills as desired (Cicero TJ, Shores CN, Paradis AG, Ellis MS, 2008). The lack of proper labeling or safety information is common, with no-prescription online pharmacies (NPOPs) -purchased medications and provides consumers with little to no information, on dosage scheduling, dosage administration, or potential side effects (Orizio, Merla and Gelatti 2011). Even, genuine drugs purchased from NPOPs could lead to a number of adverse incidents, including death, if the user is unaware of dangerous drug combinations or contraindicated medical conditions (Montoya, 2007).

Another source of worry is purchasing medication from online pharmacies on rogue websites, such as those selling prescription drugs, without requiring valid prescriptions and/or that don't publish contact information. The studies on rogue websites, may help to understand and demonstrate the dangers, presented by Internet drug sales, but do not help in determining, which online pharmacies are safe and a clear benefit to consumers. Counterfeit drugs are fake or copycat products that can be difficult to identify. The deliberate and fraudulent practice of counterfeiting, can apply to both brand name and generic products, where the identity of the source is often mislabeled in a way that suggests it is the authentic approved product.

Several issues pertinent to online pharmacies raise serious concerns about health issues. A prescription issued by a doctor cannot be re-used randomly. There is a danger that scheduled drugs can be re-ordered and misused by the consumer. Self-medication is a rampant practice in India, and online sale of drugs would only encourage it. Indiscriminate use leads to patient resistance which is very dangerous as has been the case with tuberculosis drugs. Websites may use data to sell luxury items to people who visit online stores for costly medicines. They may even sell the data to hospitals and doctors. Online pharmacies provide rebates and commissions to doctors to provide prescriptions on the basis of online information that has been filled by the patient. Earlier Maharashtra Food and Drug Administration investigated few e-commerce giants for selling prescription drugs without a proper license. It is becoming clearer that the growth of online pharmacy business depends on how much they will manage to fit themselves in the legal framework (Dadha, 2015).

The Internet has removed the boundary between the countries. The brand names may often cause confusion. There may be the same brand but with different drugs. Ultimately, the patient is at receiving end getting wrong medicines. In the absence of clear-cut regulation, the Indian public is likely to fall prey into the trap of Internet pharmacies losing both money and their health. As such, selling medicines online is prevalent in developed markets, and its mushrooming in India.

According to the World Health Organization (WHO), up to 30% of drugs sold in developing nations are branded drugs which are counterfeited. The fake drug market is estimated at \$200 billion by the World Customs Organization (WCO). The number of deaths and drug resistance levels continue to rise due to consumption of fake drugs, which is creating a healthcare nightmare, and more so in developing countries (John Irish,2010).

It is estimated that the fake drug industry constitutes 15-20% of the 40,000 crore Indian pharmaceutical industry. There is no adequate regulation, on prohibiting promotion of drugs inconsistent with approved information. There is no adequate regulation on prohibiting promotion in disguise. There is no statutory framework, except the code of ethics of the Medical council of India to suggest that no gifts/financial benefits/benefits in kind should be offered to health care professionals as inducements to prescribe particular medicines (Ashima, 2012). The Drugs and Magic Remedies Act does not have a full proof mechanism to require that promotional materials are submitted for pre-approval. Except for the Advertising standards council of India code, no other statutory provision can be pointed out that sets out specific standards in relation to information available on the internet i.e. to prevent consumers from gaining inappropriate access to information.

Although a lot of research has been carried out in western countries on online pharmacy marketing and their impact, data from rapidly developing economies like India is still lacking. There is a need for more and more research on awareness levels, perceptions, attitudes, responses and expectations of the patient population and doctors which are the key targets of a majority of pharmaceutical marketing strategies.

A better understanding of the consumer psyche and behavior will in turn help the pharmaceutical industry to formulate a socially responsible and effective strategy to explore the social media in formulating a dynamic marketing plan while setting up in the countries like India. A healthy assessment and awareness that is created towards the perception, attitudes and behavior of the key target consumer groups regarding social media marketing by pharmaceutical industry may help to fill the gap and revolutionize the contemporary trend of utilizing online for purchases of phrama products. Against this background, there is a need for more critical research in this area to understand the social media marketing of pharmaceutical industry and its impact on drug consuming behavior of the public.

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