

**A STUDY OF STAKEHOLDERS' PERCEPTION OF ONLINE PHARMACIES IN MUMBAI CITY****Dr. Shraddha S. Bandivadekar**

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**ABSTRACT**

*Online pharmacies have been present in India since 2015. However, the online sale of medicines has been in a state of turmoil because of inadequate regulations, industry resistance, and lack of consumer confidence. At the initial stages, online pharmacy services were available only in metro and Tier 1 cities, making them the oldest recipients of these services. While a number of studies conducted in India discuss the advantages and disadvantages of online pharmacies to the consumer at large, very few studies provide a qualitative perspective involving the opinions of multiple stakeholders affecting the business of online pharmacies in India. Therefore, this study attempts to understand the perception of online pharmacy stakeholders namely doctors, patients, brick-and-mortar pharmacy store owners in Mumbai city. Perspectives of the online pharmacy management members were sought from authentic sources. Snowball sampling method was used and the data was collected with the help of semi-structured interviews. The findings of the study describe the perception of the various online pharmacy stakeholders about the sale and purchase of medicines over the internet and intend to be of assistance to researchers, managers and policy-makers in the pharmaceutical industry.*

*Keywords: Online pharmacy, doctors, patients, brick-and-mortar pharmacy, management, Mumbai*

**OBJECTIVES OF THE STUDY**

- To study the perspective of consumers about online pharmacies in Mumbai city
- To understand the opinions of doctors regarding the online sale and purchase of medicines in Mumbai city
- To identify the outlook of the brick-and-mortar pharmacy store owners in Mumbai city regarding the online sale and purchase of medicines.
- To study the perspective of leading Indian online pharmacy management members, investors and the Government of India were studied with the help of authentic secondary sources.

**Sample Size**

The study population consisted of consumers, doctors, brick-and-mortar pharmacy store owners in Mumbai city. The sample consisted of 25 consumers, 10 doctors, 10 brick-and-mortar pharmacy store owners in Mumbai city.

**Sampling Method**

The snowball sampling technique was adopted in the selection of the sample units or respondents i.e. consumers, doctors, brick-and-mortar pharmacy store owners in Mumbai city.

**Data Collection**

Primary and secondary sources of data were used in the research. 3 survey questionnaires for consumers, doctors, brick-and-mortar pharmacy store owners were developed and used in the collection of primary data using semi-structured interviews. Secondary data was collected through the use of market reports, press releases and journal articles.

**Introduction**

With the advent of technology, an increasing number of ordinary people, professionals and organizations began relying on the internet for information and other purposes (Schiavo, 2008). The internet changed the way people use information to protect their health (Costa-Font et al., 2009). Technological advances and availability of healthcare information online enabled every consumer access to information they needed (Clouser et al., 2011).

This led to a shift in the way people use health care information. The early patient was just a passive recipient of healthcare services, but the new consumer was more informed, active, and demanding of healthcare providers. They wished to be more aware about their health-related issues and were participating more actively in their own health decisions.

There was a growth observed in e-commerce: purchase of medicines online. With the increasing trend of a shift from illness to wellness, healthcare information was being targeted not just to the ill, but the common man as well. This led to a shift in how healthcare was perceived by the customer. There was fragmented valid knowledge on how digital healthcare information was influencing health care services and health users i.e., the patients as well as consumers. The potential of digital health resources in health promotion and health care seemed promising, given the large group of people that could be reached, the high speed and low costs involved. However, there were important issues that needed to be taken into consideration when technology was adopted in the healthcare sector (Sorensen, 2008). Sharma, U. (2015) enlisted the leading online pharmacy players in India - Apollo Pharmacy, 1MG (formerly Healthkart Plus), PM Healthcare, Netmeds.com, Pharmeasy etc. Online pharmacies were said to have the potential to be a very large industry segment and could contribute to 5-15 per cent of the total pharmaceutical sales in India. The estimated number of Indians buying products and services online was expected to grow at a rapid rate. Marketing of drugs over the Internet was said to pose several ethical, legal and quality challenges. These challenges were important from the consumer, physician and regulators' perspectives and were a result of the anarchic structure of the Internet. While online medicines seemed to be a promising trend, there were various regulatory issues to be addressed (Dey, 2015).

## LITERATURE REVIEW

### 1. Opposition to the online sale of medicines in India

Various pharmaceutical industry stakeholders opposed the proliferation of online pharmacies in the country:

**a) Public Interest Litigations (PIL) against online pharmacies:** Since the sale of medicines began in India, several PILs (Public Interest Litigations) were filed by consumers and doctors regarding the malpractices in the sale of goods by online pharmacies and the subsequent harm to public health by drug abuse, criminal activities etc. This had prompted government bodies to take action against erring online pharmacies and move further to develop laws to regulate online pharmacies. Notable amongst these were petitions filed with the Delhi and Madras High courts regarding concerns over the online sale of medicines. During the COVID-19 pandemic, a petition was filed before the Delhi High Court demanding the de-linking of online pharmacy sites from the Aarogya Setu application (a mobile application by the Government of India to connect essential health services with consumers during the COVID-19 pandemic), as this was said to promote online pharmacies and considered to be a discrimination against brick-and-mortar pharmacies, which could also offer home deliveries (Parikh & Sunjay, 2020).

**b) Protests by AIOCD (All India Organisation of Chemists and Druggists):** Most of the existing retail pharmacy units in the country were un-organized. The growing online pharmacies were being perceived as a threat by these 'physical' retail pharmacies. The AIOCD - a union body of unorganized retail pharmacists in India, declared strike four times during the years 2015-2018. The first strike was on 14 October 2015; the second strike on 23 November 2016; the third strike on 30 May, 2017 and fourth strike on 28 September, 2018.

The strike on 14 October 2015 was to oppose the move of the government to regularize sale of medicines through internet by online pharmacies. It was claimed that the sale of medicines over the internet was illegal as per the Drugs and Cosmetics Act, 1940. ("Chemists call for nationwide strike on October 14", 2015)

The subsequent strike on 23 November 2016 was to demand action from the Government against the sale of medicines over the internet in the interest of public health and businesses of retail physical pharmacy stores in the country. ("Chemists call for strike on Nov 23 against e-pharmacies", 2016)

The day long strike on 30 May 2017 by the AIOCD was to protest against the government's decision of making e-portal registration mandatory for chemists and druggists. This process included uploading all details of medicine sales, etc. and to press for long-pending demands of the industry. As per the Government of India's directive for the e-portals, all drug sales should happen through a valid prescription by a qualified doctor. The chemists protested that with no qualified doctors in over 60 per cent of rural India, the demand was not possible or practical. If this was followed, more than 40 per cent of rural Indian chemists would have to shut shop, argued the AIOCD representative. They also argued that Ayurvedic, Homoeopathic and Unani doctors who combined allopathic medicines in order to provide timely treatment to patients, would not be allowed to do so with the new rules. ("All-India strike by 8.50 lakh chemists successful: AIOCD.", 2017)

The fourth and latest strike on 28 September 2018 was to protest against the government's move to regularise online pharmacies. ("Chemists on strike today against Centre's move to regularise e-pharmacies.", 2018)

**c) Ban on online pharmacies:** In November 2019, an order was issued by the DCGI for all the states and union territories in India, to prevent the sale of medicines through unlicensed online platforms, till the draft rules for regulating online pharmacies were in place. However even by January 2020, there was no finalization on the operating guidelines for online pharmacies. ("E-pharmacies – what lies ahead?", 2020)

In December 2019, the DCGI had urged all states and union territories to ban the sale of medicines through online pharmacies. Based on a PIL by Dermatologist, Dr. Zaheer Ahmed, citing that online pharmacies were promoting drug abuse and that online pharmacy operations were against the laws, the Delhi high court urged all state regulators to stop operations of online pharmacies. As the guidelines for operation of online pharmacies were not in place, the claim was that they were operating without a license, whereas online pharmacies argued that were just involved in delivery of medicines (just like food chains deliver food) and were not required to have a license ("Central drugs regulator asks states, UTs to stop online sale of medicines", 2019).

The ban, however, did not deter the online pharmacy players from operating. Online pharmacy players were of the opinion that they have been engaging with customers through licensed offline pharmacies. Therefore, the sale of drugs was happening as per the law of the land. There were no existing guidelines in place for licensing of online pharmacies. The offline partners of these online pharmacies dealt were completely adherent to laws. They also said that, going ahead, if any new laws were made for online pharmacies, they would adhere to them. According to the online pharmacy players, the onus was on the government to come up with proper laws pertaining to the online pharmacy sector at the earliest ("Why E-pharmacy cos are not worried by regulator's ban on online sales?", 2019).

**d) Court orders against online pharmacies:** Singh (2019) stated that, while the Delhi High Court imposed a ban on the sale of medicines over the internet, the Madras High Court had a completely different take on the issue, which was that the sale of drugs through online pharmacies cannot be stopped abruptly. The Madras High Court was moved by the Tamil Nadu Chemists and Druggists Association to demand suspension of all websites selling Schedule H, H1 and X medicines in India. Online pharmacies appealed with the argument that they were online aggregators and acted as a connecting link between offline pharmacies and consumers through a technology platform. They also cited the various benefits of these facilities, especially for the old and immobile. As a result, the Madras High Court announced that a sudden ban on online pharmacies may prove to be inconvenient for patients who were relying on these services.

## **2. Steps taken by the Government of India and statutory bodies to resolve issues with the online sale of drugs**

The Government of India and statutory bodies in the country were trying to streamline the online sale of pharmaceuticals while keeping in mind the issues of the physical retail stores in the country.

**a) Role of Drug Controller General of India (DCGI):** The government planned steps to develop a regulatory framework for online pharmacies and define the roles and responsibilities of sellers in the online pharmacy space.

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In 2015, the DCGI appointed FICCI as a nodal agency to take into consideration views of all pharmacy stakeholders like the OPPI, the AIOCD, Chemists and Druggists Associations of respective states, the IMA, to come up with guidelines for online pharmacies in India.

Until the sub-committee submitted its finding and recommendations, the state regulators were urged to ensure vigilance of online sale of drugs and take action against violators. According to a circular released by Office of the DCGI, 2015, to all states and union territories' drug regulators in the country, the Drugs and Cosmetic Rules, 1945 did not distinguish between sale of drugs over the internet and in physical stores. Issues were raised by various pharmacy stakeholders about the risks of drugs being sold online and violation of the Drugs and Cosmetic Rules, 1945.

### **b) Federation of Indian Chambers of Commerce & Industry (FICCI):**

FICCI made a representation to DCGI in June 2016 regarding the regulation of online pharmacies in the country. Some of the recommendations of the report submitted by FICCI included:

- Creation of a national portal to act as the nodal platform for transacting and monitoring online
- Sale of drugs and necessity of evolving a mechanism to register online pharmacies
- Sale of drugs through e-prescription
- Audit trail to prevent drug abuse and linking prescriptions to Aadhaar Card
- Geographical restrictions for operation of online pharmacies
- The existing licencees involved in retail sale of drugs could also register on the national portal for carrying out online sale of drugs
- Certain categories of drugs viz. the narcotic and psychotropic drugs, tranquilisers, habit forming drugs and Schedule X drugs that were prone to being abused or misused should be excluded from sale through online pharmacies
- All matters relating to sale of drugs including through online shall continue to be regulated in accordance with the provisions of the Drugs and Cosmetics Rules, 1945 as amended from time to time

In July 2016, the Government of India provided recognitions to all operating online pharmacies. The CDSCO issued guidelines for all state regulators mentioning that online pharmacies can continue to operate as long as there was no violation of existing laws including the Drugs and Cosmetics Act, 1940; Drugs and Cosmetics Rules, 1945 and the Information Technology Act, 2000.

In November 2016, FICCI had launched a self-regulatory code of conduct for all online pharmacy stakeholders across the country. This was done to ensure highest professional standards and adherence to laws by online pharmacies in the country. It was said that online pharmacies could be beneficial to both sellers and consumers, if proper guidelines were followed. Also, the guidelines touched upon aspects like sale of medicines without prescription, restrictions on sale of Schedule X drugs, licensing of pharmacies, access to consumers, co-operation with the government and solving of consumer grievances (Federation of Indian Chambers of Commerce & Industry, 2016).

**c) Suggestions by the Indian Internet Pharmacy Association (IIPA):** The IIPA had put forth a self-regulating code of conduct, under which no online pharmacy could sell scheduled medicines without a doctor's prescription. Online pharmacies were allowed to only tie up with licensed chemists and can sell medicines only on a valid doctor prescription. One of the suggestions by IIPA was to link every medical prescription with the buyer's Aadhaar number to enable efficient monitoring of medicine sales. Before this, IIPA had urged the government to legally recognize the existence of online pharmacies (Bhatia, 2017).

**d) Draft proposal by Central Drugs Standard Control Organisation (CDSCO):** The CDSCO acted as a regulator for pharmaceuticals and medical devices in India. The health ministry had initiated discussions to frame a policy that would facilitate access to quality medicines and encourage more entrepreneurs to sell medicines online. The government was planning to set up an electronic platform that would act as the nodal platform to monitor movement of medicines. Under this platform, the supply of any drug was to be made against a cash or credit memo generated through the electronic platform with the soft and hard copies of memos to be maintained by the licensee. Drugs were categorized into five schedules which ranged from medicines with limited risk to those having greater drug abuse potential:

- Third schedule - covering all over-the-counter drugs
- Fourth schedule - covering all prescription drugs
- Fifth schedule - covering all antibiotics and anti-bacterial drugs
- Sixth schedule - covering all narcotics and psychotropic drugs
- Seventh schedule - covering all medicines that do not fall under the other schedules
- There were no first or second schedules

The draft proposal described the difficulty of getting refills and repeat orders (Thacker, 2017).

**e) Draft guidelines by Drugs Controller General of India (DCGI):** On 28 August 2018, the draft guidelines for online pharmacies were released by the Union Health Ministry. On 7 December, 2018, Eswara Reddy, the Drugs Controller General of India, announced that the union government was planning to come up with final regulations for online pharmacies. According to the guidelines:

- Online pharmacies were being regulated at the state level. The draft proposed that the DCGI should be the sole agency granting approvals to online pharmacies and act as per the Drugs and Cosmetics Rules, 1945 as well as the Information Technology Act, 2000.
- An online pharmacy can be licensed in one state and can sell drugs across the country
- Online pharmacies were required to operate in accordance with the Drugs and Cosmetic Act, 1940; failing which could lead to cancellation of pharmacy registration
- Registration of an online pharmacy with the Central Licensing Authority was mandatory
- The online pharmacy was required to operate in the presence of a registered pharmacist and it was required to verify the details of patient, doctor before dispensing medicines
- Drugs under the Narcotic Drugs and Psychotropic Substances Act, 1985, were not allowed to be sold by online pharmacies
- Online pharmacies were asked to keep complete confidentiality of patient information. However, the pharmacy was required to disclose details with the State or Central Government, in case of legal issues or for public health purposes
- It was recommended that an online pharmacy portal was established in India and all the data generated was to be kept in the country and was not permitted to be sent or stored, outside the country
- Online pharmacies were prohibited from advertising in mediums like print, television, or the digital channels

Considering the grey area in which online pharmacies were operating and the opposition and protests from the 'brick-and-mortar' pharmacies, the draft guidelines provided much needed clarity. The highlight of the draft rules was the mandatory requirement of registration for all online pharmacies operational in the country.

**f) Opinion of the IMA (Indian Medical Association):** The IMA was opposed to the online sale of medicines. The argument put forth by IMA was that online sale of medicines was vulnerable due to deficient and evolving laws. In absence of a robust system, the loopholes could be exploited by unregulated players. This could lead to severe consequences for the consumers like spurious drugs, self-medication, adverse drug reactions, drug abuse. The doctor's role was bypassed in many such cases, leading to dire consequences. Another argument was that online pharmacies would benefit only the affluent and educated population with no implications for the uneducated and poor (Indian Medical Association, 2020).

## RESULTS

The various stakeholders in the Indian pharmaceutical industry had varying opinions on the presence of online pharmacies in the country. The opinions of consumers, doctors, brick-and-mortar pharmacy store owners in Mumbai regarding online pharmacies in India as captured by the semi-structured interviews were as follows:

**a) Consumers:** An unclear regulatory environment could take away benefits offered by online pharmacies to end consumers as their preference for online pharmacies may get impacted due to these issues. Some consumers said that they were unable to differentiate between legal and illegally operating pharmacies. Online pharmacies may create risks of forged prescriptions and exploitation of prescription drugs for the end customer (Bhattacharya, 2021).

Based on the semi-structured interviews, the opinions of the consumers were as follows:

- 47% of the consumers preferred to buy medicines only from brick-and-mortar stores, while the remaining 53% bought medicines from both online stores and brick-and-mortar stores.
- Most of the respondents bought medicines for themselves. In terms of online medicine shopping the younger family members bought medicines for the older family members.
- 74% of the consumers interviewed had a chronic medical condition like hypertension and diabetes requiring regular, uninterrupted supply of medicine.
- Low cost and convenience were the most prominent reasons for online purchase of medicines.
- Lack of technological know-how and apprehensions regarding reliability of medicines received are two of the major constraints faced by consumers while buying online medicines.
- Few consumers reported to better knowledge regarding medicine purchase as a result of online purchase of medicines.
- Few informed customers who were aware of the problems faced by online pharmacies were discouraging consumers from trying an online medicine purchase as they were not sure if the medicines bought were legal or not. Another concern with the consumers was that online pharmacies could be banned anytime, leaving consumers with no choice other than brick and mortar pharmacies.

**b) Doctors:** Doctors were concerned about patients receiving counterfeit medicines or wrong medications when purchase is done through an online pharmacy. Also, drug abuse and misuse of prescriptions by patients, due to lack of robust rules and guidelines by online pharmacies. Doctors were of the opinion that online pharmacies could prove to be advantageous and allow them to prescribe a wide variety of medicines without worrying about its availability (Ernst & Young LLP, 2021).

Based on the semi-structured interviews, the opinions of the consumers were as follows:

- Regarding their stance on online pharmacies, 30% of doctors were neutral, 10% of doctors were negative and 60% of doctors were positive.

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- 40% of doctors did not recommend buying medicines from online pharmacies to patients at all. 40% of the doctors were open to the idea of an online medicine purchase as it leads to convenience, cost savings and better compliance. The remaining 20% of doctors were not opposed to the idea of an online medicine purchase however did not recommend it actively.
- Doctors perceived cost, convenience as major advantages of online medicines purchase.
- The concerns expressed by doctors on online medicine purchase included counterfeit medicines, incorrect medicines and lack of technological know-how among older patients.
- 60% of doctors mentioned that they were aware of their patients who bought medicines from online pharmacies. Patients have confided in their doctors that low cost, convenience, freedom of choosing a brand were main reasons behind their preference.
- Most doctors reported to receiving more queries from patients and recommendation regarding brand alternatives after they begun buying medicines online.
- Doctors advise patients for verifying the accuracy of the medicine received is right and not relying on cost as a sole factor for brand choice.
- Overall, doctors had a mixed opinion regarding online pharmacies, depending on age, specialization, and personal preferences. However, all doctors were of the opinion that patients buying from online pharmacies should remain in touch with doctor regularly so as to avert any possible complications that they may face due to medicines bought online like wrong medicines, side effects, etc.

**c) Brick-and-mortar pharmacy representatives:** The Indian pharmaceutical industry was dominated by local players and the existing organized pharmacies formed a small portion of the pharmaceutical retail market in India. The growth of e-commerce in India prompted many pharmaceutical players to take the online route. Laws were mainly framed considering the local, 'brick and mortar' online pharmacies, and online pharmacies could violate these laws. The physical pharmacy stores were opposing online pharmacies on the grounds of threats to public safety due to drug abuse, counterfeit drugs, and other malpractices. However, they also saw a threat to their business as online pharmacies offered the same medicines to customers at low prices (which they were not able to match) and delivered to their doorstep. Some local pharmacies had begun offering discounts on the maximum retail price of medicines to retain customers and had also begun providing home delivery services.

Based on the semi-structured interviews, the opinions of the brick-and-mortar pharmacy representatives were as follows:

- The brick-and-mortar pharmacies located close to a known doctor's clinic and hospital were relatively unaffected by the online pharmacies. The other stores reported an impact on their business.
- Repeat purchases of medicines for conditions like diabetes and hypertension had shifted to online pharmacies due to low cost and convenience of home delivery.
- All of the pharmacies except hospital pharmacies reported to changing their policies and had started offering discounts on medicines and home delivery facilities to compete with the online pharmacies.
- Over 50% of the brick-and-mortar pharmacy owners believed that the competition between online pharmacies and brick-and-mortar pharmacies was not fair and a level playing field was required.
- Counterfeit and incorrect medicines, lack of technological know-how among older patients were concerns expressed by brick-and-mortar pharmacy owners.

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- All brick-and-mortar pharmacy owners believed that the edge they had over the brick and mortar pharmacies were personal connect with the patients, knowing all old, regular patients personally and the presence of a qualified pharmacist at the store for resolving any patient queries.

The perspective of leading Indian online pharmacy management members, investors and the Government of India were studied with the help of authentic secondary sources (Web, research publications) and were found to be as follows:

**d) Online pharmacy management:** Online pharmacies operating within the legal framework were concerned about the lack of clear guidelines as they were operating within the purview of the Drugs and Cosmetics Act, 1940 and were being taxed unnecessary due to the lack of clarity. Online pharmacy managements were of the opinion that the concerns with online pharmacies were also applicable to brick-and-mortar pharmacies and that online functioning made them more compliant and transparent as compared to the physical counterparts. Interviews of the founders of leading online pharmacies in India, available in public domain, by credible sources helped shed more light on this subject.

1) Mr. Pradeep Dadha, Founder & CEO, Netmeds: Mr. Dadha was of the opinion that the objective of the draft guidelines was regularization and not legalization. Investors who did not have a deep understanding of the healthcare regulations in the country were sceptical. However, he mentioned that the present regulatory scenario was more towards bringing a process in place and a set of rules for online pharmacies for their efficient functioning. Mr. Dadha mentioned that they had an aggregator model and requested the government to streamline laws as online pharmacies catered to the medicine availability issues in the Tier 1, 2 and 3 cities in the country (Bhan, 2019).

2) Mr. Prashant Tandon, Co-Founder and CEO, IMG Technologies Pvt. Ltd.: Mr. Tandon was of the opinion that IMG was a digital platform that conveyed the prescription in partnership with licensed pharmacies which dispensed medicines across India. He said that organized online pharmacies need not have to worry as their model is in compliance with the existing laws. However, he mentioned that there needed to be a progressive regulatory framework (which was still in process with the government) so that there was no grey area, and it would help differentiate between organized and unorganized players, and that the online pharmacies were waiting for guidelines from the government (Bhan, 2019).

3) Mr. Dharmil Sheth, Co-Founder, PharmEasy: Mr. Sheth said that all online pharmacies were actively involved in getting guidelines out in assistance with the Government. He mentioned that PharmEasy was a channel partner partnering with legally operating licensed pharmacies in the country. Therefore, their model was completely legal and in compliance with the Information Technology Act, 2000 and the Drugs and Cosmetics Act, 1940. He mentioned that most online pharmacies work with about 500 brick and mortar pharmacies in the country, so the business model was collaborative without hampering interests of physical pharmacy store owners (Inamdar, 2018).

4) Mr. Tushar Kumar, Co-Founder, Medlife: Mr. Kumar was of the opinion that the Government had always recognized and supported online pharmacy businesses in the country. All online pharmacy stakeholders were involved in brainstorming to ensure right policies came out, especially to cater to the healthcare needs of the poor and the needy population of the country (Medlife, 2019).

5) Mr. Faizan Aziz, Co-Founder, Myrameds: Mr. Faizan Aziz was in favour of the mandatory registration of online pharmacies with the central authority in order to bring more credibility and authenticity to online pharmacies. He said that once regulations are in place, online pharmacies would scale up faster and that many players were sceptical about marketing and expansion, due to regulations not being in place (“Have e-pharmacies found the growth pill?”, 2017).

**e) Government and statutory bodies:** The formalisation of draft rules governing online pharmacies was pending since 2018. There was no clarity on e-prescriptions and difference between e-pharmacy” and “e-pharmacy portal”



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which had led to confusion in the laws. While the finalization of rules was acknowledged as urgent and important by the Government, there was still a delay being seen in the implementation (Bhattacharya, 2021).

**f) Investors:** There was a debate whether online pharmacies were legally permitted in India at all. In the past few years, the investor interest in Indian online pharmacies was seen to be growing. It was crucial for foreign investors to have clarity on the business model and operations of a target e-pharmacy of choice, as well as the applicable regulatory regime. In the absence of this clarity, online pharmacy owners and foreign investors both were suffering (Bhattacharya, 2021).

### **DISCUSSION**

India's pharmaceutical trade began to shift from offline to online mode in the year 2015. The concept of online pharmacies caught the attention of regulators and the Union Health Ministry in July 2015. An expert committee was developed to determine the viability of online pharmacy in the country under the chairmanship of the then Maharashtra FDA Commissioner Dr Harshdeep Kamble. After a series of consultations, the Union Health Ministry released a detailed collection of the draft regulations to amend Drugs & Cosmetics Rules by adding separate sections for governing online pharmacies in the nation. Since then, the issue has been circling within the ministry's bureaucratic circles. There were concerns being raised at the delay in finalizing the regulations.

The country's top association of industry organizations, FICCI, strongly urged the timely notification of online pharmacy regulations in January 2020 to prevent misunderstanding among stakeholders and argued that the delay in notifying online pharmacy regulations was creating a lot of issues for online pharmacy players. It was said that an easy and straightforward regulatory direction was required for online pharmacies to succeed. Dr. B. R. Jagashetty, a sector specialist and former CDSCO National Advisor (Drugs Control), emphasized the need for regulations of online pharmacies and urged the government to come out with online pharmacy regulations at the earliest (Shairwal & Khan, 2021).

The guidelines for operation of online pharmacies were yet to be finalized and were in a state of flux. There was no clarity regarding the timelines for finalization of the online pharmacy draft guidelines and a delay was expected in the implementation of the same. The delay was seen to be impacting the growth of online pharmacies in India (Sharma, 2019). In the absence of clear provisions regarding sale of drugs from internet, a big misconception was that rules applied for offline pharmacies could be easily applied to the online pharmacies, too, which could lead to dangerous consequences and may be prove as a dangerous trend in future. Some online pharmacy players may make interpretation of laws and rules as per their convenience for taking advantage for their business, not abide by regulations or try to bypass them.

Online pharmacies were beneficiaries of the COVID-19 pandemic induced lockdown, and online sales of health products were estimated to grow by four times in the year 2020. Significantly, the importance of e-commerce players in maintaining social distancing norms and providing delivery of essential goods in critical times increased. In the post COVID world, the online health market was estimated to expand by USD 25 billion across all segments, but particularly in prescription drugs and e-consultations, as compared to the pre-COVID estimate of USD 16 billion. The Ministry Health Affairs recognising and allowing the online delivery of medicines during the lockdown was a welcome step in the direction of online pharmacies.

The customer base and popularity of online pharmacies was seen to be growing, across the country. While the government had been taking steps to regulate online pharmacies, there was still a long way to go for the streamlining of regulations for online pharmacies, in the wake of objections by various stakeholders. Online pharmacies were seen to be showing potential to offer a futuristic, lucrative business model for sellers and an equally beneficial service to consumers.

### **CONCLUSION**

The various stakeholders in the Indian pharmaceutical industry had varying opinions on the presence of online pharmacies in the country. The suggestions provided in this section were aimed at reducing the risk to the end

consumers due to inconsistencies and malpractices of online pharmacies. The following approaches involving the 4 stakeholders in the medicines buying process - Consumers or Patients, Doctors, Online pharmacy and the Government, could be explored: The study provided insights into factors affecting online buyer behaviour of medicines. It was found that, out of the various types of products and services purchased online.

#### **LIMITATIONS AND SCOPE FOR FURTHER RESEARCH**

The study was constrained because of geographical limitations. The study was carried out in the financial capital of India – Mumbai. Therefore, the findings of the study may provide an accurate representation of stakeholders' of online pharmacies across metros and tier 1 cities in India. Therefore, these can be applied to other metros and tier 1 cities in India. Further, there is scope to include opinions of online pharmacies stakeholders' from other metros, tier 1, tier 2, tier 3 cities in India to get a comprehensive picture. Structured interviews with senior management personnel from online pharmacies and Indian pharmaceutical regulatory bodies may bolster the findings further.

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### Questionnaires used for semi-structured interviews:

#### QUESTIONNAIRE FOR CONSUMERS

1	Where do you buy your medicines from, usually?
2	Do you buy your medicines on your own or someone else does it for you? Do you buy medicines for someone else in your family?
3	Do you or someone in your family have a chronic condition that requires you to consume medicines regularly?
4	Do you buy online medicines? Why or why not?
5	What do you think are the reasons that prompt people to buy medicines from online pharmacies?
6	What do you think are the objections or barriers which prevent people from buying medicines from online pharmacies?
7	Have you experienced a change in the way you purchase medicines after the arrival of online pharmacies? Please elaborate.

#### QUESTIONNAIRE FOR DOCTORS

1	What is your stance regarding online pharmacies? (Positive or Negative or Neutral)
2	Do you recommend online pharmacies to your patients?
3	What are the advantages of online pharmacies according to you?
4	What are the disadvantages of online pharmacies according to you?
5	Do any of your patients purchase medicines from online pharmacies? Have they told you about it?
6	Have you experienced a change in the way your patients purchase medicines after the arrival of online pharmacies?
7	Is there more awareness among your patients after they have begun purchasing from online pharmacies? Do they read up about medicines they consume or ask you more questions about medicines because of online pharmacies?
8	What would be your word of advice to patients who want to buy medicines from online pharmacies?

#### QUESTIONNAIRE FOR PHARMACISTS FROM PHYSICAL PHARMACY STORES

1	How has your business changed after online pharmacies came into existence?
2	Have you changed any of your policies to combat the impact of online pharmacies on your business? If yes, what are these changes?
3	What is your appeal to the government regarding the impact on your business from online pharmacies?
4	Do you think online pharmacies have any disadvantages to patients? What are they?
5	How do you have an edge over online pharmacies?