



E-Pharmacies: An emerging market in Indian retail pharmacy, An Indian perspective

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Abstract

A steep increase in the netizen population in India has regarded revolutionary changes in the field of retail pharmacy in last few decades. The change in prescribing methods have been seen. The diversification in the strategies of pharmaceutical retail marketing have been observed which in turn has resulted in enhancement and speeding up the reach of drugs to the patients in time. It is been inferred that the acquaintance with the Internet is most with age groups of students and younger patients who would more likely than others to buy medications through online pharmacies. An online survey was been done using google forms regarding the use of e-pharmacies and it was found highly recommended by the age group of 18-35. In this article we have made an effort to create awareness of using e-pharmacies, its pros and cons and the precautions to be taken while using e-pharmacies by the public.

Keywords: E-Pharmacy, survey, prescribing patterns, retail marketing.

Introduction

There are more than 460 million internet users in India which has made India a secular country with second largest online market in the world¹. It is predicted that there would be more than 635 million internet users in India by 2021². Nearly 323 million people in India access mobile internet, in which 263 million are from urban areas and 109 million in rural communities³.

Videsh Sanchar Nigam Limited (VSNL) was the first to launch internet services in India in Aug, 1995. Since then it is been observed that the number of internet users has a steep increase which has led to the growth of digital usage in India & increased to 460 million active internet users currently⁴.

The increased usage of internet all over the world has revolutionised the dimensions of introduction and expanding the e-markets rapidly. Due to the upsurge in the internet usage the commercial transformation was seen in the field of marketing. Retail pharmacies also found a new way of exploring the market through e-commerce⁵.

The objectives of this study are to report a detailed literature survey to conscript the minutiae concerning to e-commerce & marketing, e-prescription, current online pharmacies in India, the role of e-pharmacies in emergencies, the pros and cons of online pharmaceutical retail marketing and their ethical issues. A demographic survey of acceptance of e-pharmacies in India is been conducted and reported.

Methodology

A set of questioners was been prepared relating to the age, sex, level of education, use of internet, kind of pharma products purchased online, frequency of purchase of medicine online, and whether the set of people recommend online purchase of medicine. The forms were been circulated through various social media such as WhatsApp, Facebook and Instagram to get the response by a set of people.

Results and discussion

Total number of responses received was 252 of age groups of below 18, 18-25, 25-35, 35-45 and above 45 years. In which only 115 members (45.53%) used online portal for purchase of medicine. The number of people who used internet were 16 members were of below 18 years of age, 171 members of age between 18-25, 48 members of age between 25 to 35, 14 members of age 35 to 45 and 3 members of age above 45 (Figure-1).

Out of 115 members who used online portal for purchase of medicine 6 members were of below 18 years of age, 78 members of age between 18-25, 24 members of age between 25 to 35, 6 members of age 35 to 45 and 1 were above 45 years (Figure-2). In the aspect of sex 68 were male and 47 were female. Out of all e-pharmacy customers 34 members preferred to purchase both prescription and non-prescription medicine online, 47 only non-prescription drugs and rest purchase only prescription drugs (Figure-3).

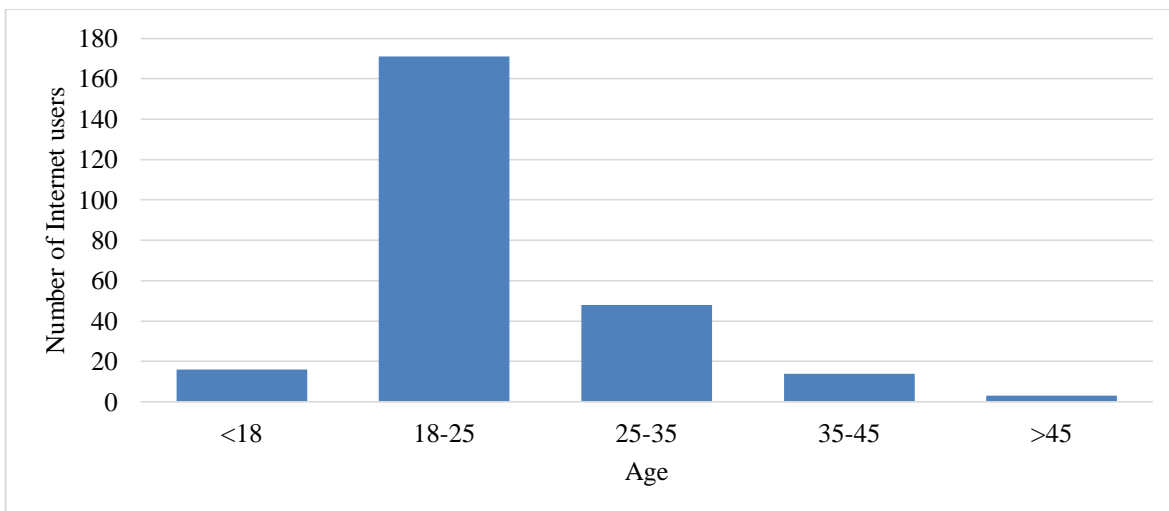


Figure-1: Graph of Number of internet users based on age.

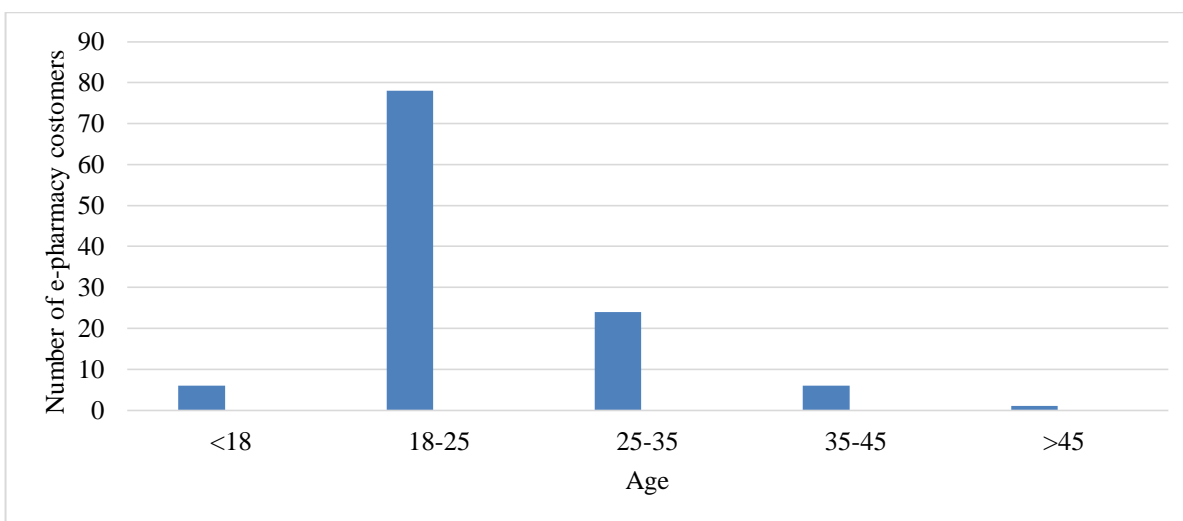


Figure-2: Graph of Number of e-pharmacy customers based on age.

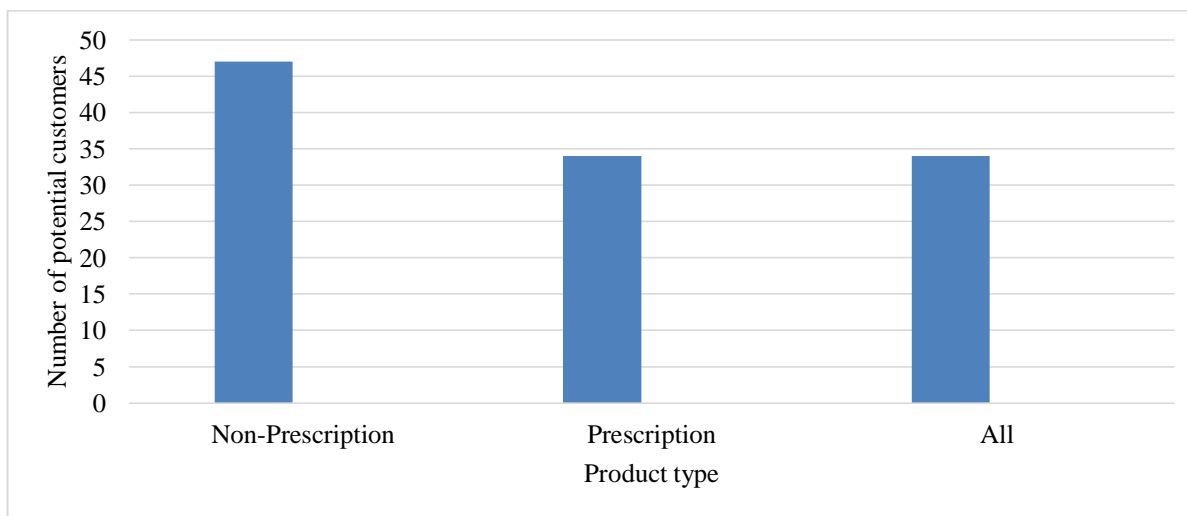


Figure-3: Graph of number of potential customers buying different types of products online.

The study was also conducted for those who prefer using online purchase of medicines and conditions like always, frequently, when medicines are not available nearby and only for discounts and offers at which people choose e-pharmacies. In which most of them i.e., 46% choose e-pharmacies when the medicines are not available nearby, 20.87% choose e-pharmacies because of discounts and offers, 20.87% choose to buy medicines always and around 14% people frequently buy medicines online (Figure-4).

In the population of online customers for pharmaceuticals 66.08% prefer and recommend the use of e-pharmacies, 25.21% may recommend e-pharmacies and 10% do not recommend the use of e-pharmacies for various reasons.

Discussion: E-commerce & Marketing: E-Marketing is an art of sending commercial messages, especially for the population using email for marketing. Any emails sent to a customer is considered as e-marketing. E-marketing communication would include advertisements, business proposals, sales, donations, and product awareness activities. Evolution of e-mail marketing has rapidly evolved along the side of technological development in 21st century. It was Gary Thuesk of digital equipment corporation in 1978 had out the first mass email application to around 400 potential clienteles through advanced research project agency network. This email resulted in the first high value sales, worth of \$13 million in Digital Equipment Corporation products. On the present day, emails are proved the most convenient and rapid communication tool. E-Marketing is

generally used to get quotations, buy products, sell or promote goods and services. The pros of E-Marketing such as tracking of investments and returns, search of products in less time and low risk, targeting customers with a low expense, reaching substantial number of subscribers and identifying potent buyers, increased exposure to products and services has increased the value of E-marketing in a substantial way. There are also few cons in E-Marketing like too many commercial emails creates spams and irritates the customers, the emails are not targeted to the right customer generally. Security and privacy issues have been a big challenge, higher transparency of pricing and increased price competition^{6,7}.

E-Prescription and its role: The traditional way of writing a prescription as a means of communicating drug choice for the patient care between prescriber and pharmacist. It has been a great challenge in the understanding of a prescription by its legibility which in turn may result in falsification of prescriptions or the risk of misinterpretation is more. Being this reason, the adoption of electronic prescriptions is been suggested⁸. E-prescribing may be highly promising for refining patient safety, workflow of pharmacies and communication with the prescribers. There may be few limitations in adoption of a new technology since it may create new complications in the work systems. Beholding the safety of e-prescribing methods such as Human Factors Engineering(HFE) can be adapted. HFE is a science which deals with the interaction between individuals, working environments the crucial elements affecting the safety and human performance⁹⁻¹¹.

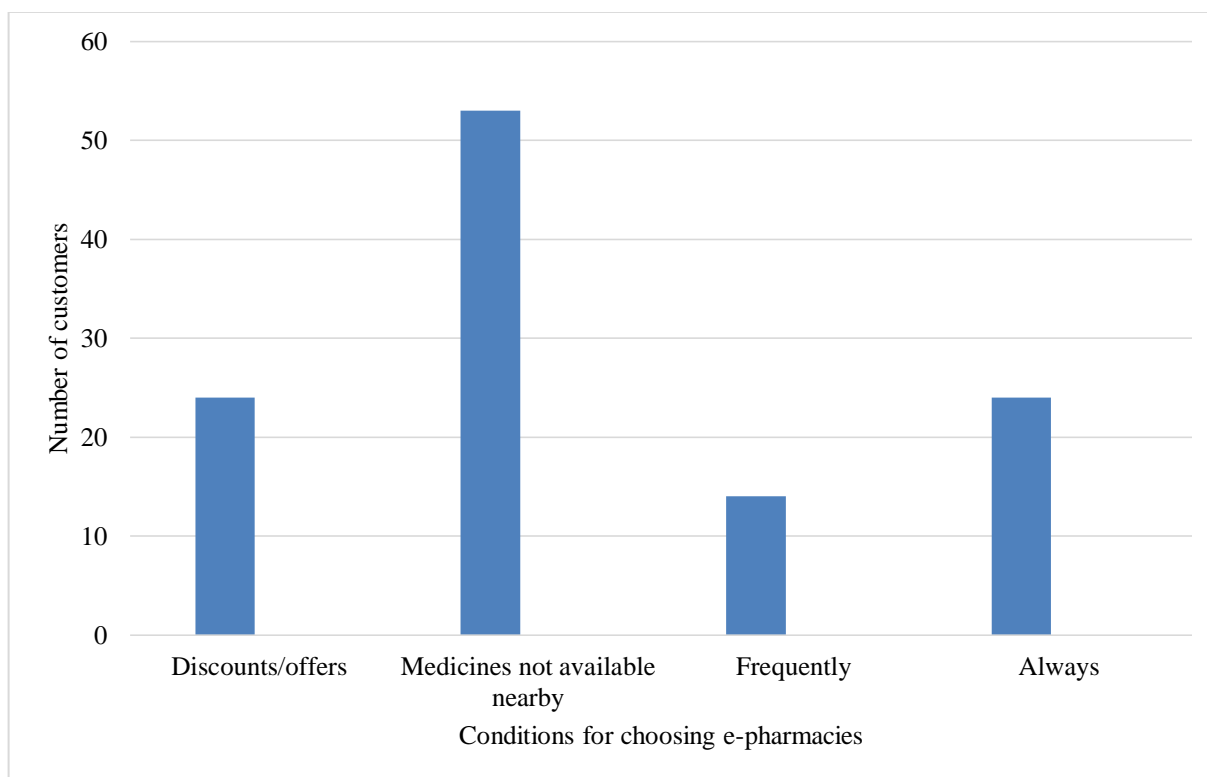


Figure-4: Graph of Number of customers choosing e-pharmacies in various conditions.

Online pharmacies may endorse in drug abuse, drug misuse, self-medication, and many such problems. Self-medication is a fecund run-through in India, and sale of drugs online may embolden its use. Use of medication deprived of the supervision of the medical practitioners may be unsafe and also hypothetically life-threatening. There is no track on reuse of a prescription in online pharmacies which may indulge in re-order of scheduled drugs and its misuse by the procurer. The Drugs and Cosmetics Act 1940, and the Drugs and Cosmetics Rules 1945 has given the guidelines on the sale of drugs of various schedules such as drugs which belong to Schedule H and Schedule X which can be sold only upon producing prescription from a medical practitioner, there are specified rules, for labelling and bar coding even. Schedule. Chances of drug abuse and addiction are very high with the narcotic and psychotropic drugs (drugs belonging to Schedule X) which require a thorough safe storage and records of dispensing should be maintained. The prescription should also be duplicated and one copy of it should be reserved by the licensed pharmacist for minimum of 2 years¹².

Current online pharmacies in India: Present day there are nearly more than 30 official online pharmacy firms in India to name a few mCHEMIST, Netmeds, MedPlusmart, MeraPharmacy, Medidart, BuyDrug, Apollopharmacy, IMG, Aermed, Practo, Medlife, Pharomeasy, Medikels, Medehome, Lifcare, Myra, Bharat Pharmacy, HiGlance Online Pharmacy, E MedStore, MedNear, Medidoor, E-Dorob online Pharmacy and many more¹³.

In the initial stages the e-pharmacies were not completely organised the orders of the model prescription drugs were taken without the validation of the prescription. The plaidon the authenticity of the order due to unavailability of a qualified pharmacist. The lack of proper maintenance of records and improper auditing was a key area of fretfulness. There are nearly 35,000 active online pharmacies operating worldwide. In which nearly 96% of online pharmacies do not comply with U.S. federal and state laws and pharmacy standards. There are more than 10% to 12% of online pharmacies that sell controlled substances like opioids. Around 500-600 illegal online pharmacy sites are launched every month. Numerous arguments have been observed with regard to e-pharmacies, like weather e-pharmacies are legal? Is the use of 'cyber physicians' aggregable? Weather the prescriptions are verified? Some e-pharmacies might begenuine and also advantageous to the end users but others often engage in dubious practices. In the Section 4 of the Information Technology (IT) Act it says "Legal recognition of electronic records"¹⁴ and in the Section 5 of the IT Act it provides information for "Legal recognition of electronic signature"¹⁴. In the Section 5 along with the above information it gives the information of the prerequisites for legal recognition as it is essential to be a law that requires information, that is to be signed by a person, and in place of such signature, we can affix an electronic signature in a manner prescribed by the central government. According to the Rule 65

of The D and C Rules, 1945 it says "a prescription should be in writing and signed by the person giving it with his usual signature and be dated by him"¹⁷.

Role of online pharmacies in emergencies: On an average 5% of Emergency department patients access online platforms to obtain medicines. The patients who have been prescribe with multiple medications with prescription plans used online pharmacies more frequently. Due to the increased availability and use of internet, the use of E-pharmacies also might increase in patients of emergency department in the due course¹⁸.

Ethical Issues: In India there is no well-defined staunch online pharmacy or telemedicine laws. Whereas bestowing to the statement of Supreme Court, the doctors should not consult through phone, except in the emergencies. However, there are various laws pertaining to manufacture of drugs, its sale and distribution such as D and C Act 1940, D and C Rules 1945, The Pharmacy Act 1948, Indian Medical Act 1956 and all the laws pertaining to online markets are defined under the Information Technology Act, 2000.

Pros & Cons of E-pharmacies: Online pharmacies have indubitable benefits for patients in providing the facility such as easy access to drugs for older population, incapacitated or confined patients, anytime accessibility (24/7 service), virtually any product is available, more privacy, which encourages patients to clarify as many queries about agonising issues, more affordable prices or discounts, more than all access to information of the drugs online and comparison of prices before purchase.

The cons of use of e-pharmacies include lack of eloquent interaction between the patient and the medical practitioner or a pharmacist which may lead to wrong dispensing of medicine. There are lot of chances of duplicate medicine or wrong medicine dispensed in the name of generic through online pharmacies. The legitimacy of the website or the online portals used for purchase of drugs is difficult to determine and also it is challenging to identify the counterfeit medicine sold online. Self-medication, inadequate use of medicine, mis diagnosis are further exacerbated disadvantages of e-pharmacies.

Further hardships of e-pharmacies associated are anomalies in appropriate storage of medicine, confusion in brand names which may lead to delivery of incorrect medicine, and irrational use of antibiotics.

Precautions to be considered to evade misuse of e-pharmacies: Awareness is to be created to the public regarding the misuse of e-pharmacy, the misuse use of prescription drugs. Patients should be aware that the prescriptions should never be changed without discussing it with the physician. Never use the medicine prescribed to another person in any condition without proper knowledge of drugs. Discarding of unused medication should have a check upon. When the drugs belonging to

Schedule H or schedule X is found to be sold without a valid prescription, it should be immediately reported since for local pharmacy stores it would be easy to verify the legitimacy of a prescription, as the prescription contains the registration number of medical practitioner and details of where the patient is treated and there is hardly any such recheck option in online stores¹⁹.

Conclusion

Online pharmacies being partially regulated and the incomplete scene of online drug marketing regulations a highly recognisable issue, and a striking challenge to regulate the phenomenon is the “Implementation of the Ryan Height Online Pharmacy Consumer Protection Act” by the US Department of Justice in 2009.²⁰

Although online-pharmacy is more accountable than local pharmacies particularly in rural and distinct areas, proper set of rules should be set up and regulation like uploading of scanned copies of prescriptions should be made a compulsion also verification of the original prescriptions upon delivery of drugs should be made a mandate. Patients should be given thorough information like expiry date and batch numbers of the medicine they purchase online and awareness should be created amongst them on use of prescription medications. Adopting the Adoption of the strategies and platforms of the developed countries to enterprise and strengthen the e-pharmacy system would be recommended. Based on the survey conducted youth age group i.e., population of age 18-35 were found the most potent customers for e-pharmacies and nearly 66% of population who used online purchase of medicines recommended e-pharmacies. The increase in the accessibility of internet and the scope of e-pharmacy is increasing exponentially provided, proper guidelines have been set for the same.

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