A Review Article On E-Pharmacy Impact On Society And Pharma Sectors

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ABSTRACT :-

E-pharmacy have become the latest trend all over the world, especially since COVID-19 pandemic started in 2019. People who were looking for medications had more options, whether they had a prescription or not. At the pandemic time for the safety concern consumer buying each and everything through online system and also choose home delivery for all essential goods and medicines. India is 3rd largest & fastest developing, pharmaceuticals industries in world. Now a days online pharmacy is one of the technology advancement which creating huge demand . There are so many facilities of e-pharmacy or online pharmacy like as cost effectiveness, free home deliver, instant serves. In this article we have discussed in detail about online pharmacy, its advantages and disadvantages, differences between online and local pharmacy, and certain measures to avoid misuse of e-pharmacy . Also know about rules and guidelines for e-pharmacy. This review explores the evolution of e-pharmacies, their growth, and impact on society and traditional healthcare systems. Many e-Pharmacy key players are PharmEasy Med life, 1MG, Netmeds Myra, Care On Go and Pharma safe operates online business. Med life is leading with about 30% market share of the total e-pharmacy market in India.

KEYWORDS :- E-Pharmacy, laws of pharmacy, Types of e-pharmacy, Pandemic situation, pharmaceutical sector.

1.Introduction: - The use of internet worldwide has increased greatly for buying as well as for selling of products. Therefore, the interest of people in purchasing medicines online has also evolved [1]. Nowadays purchase of prescription medicine with the help of internet has become the global phenomenon with notable economic, social, and health related impacts [2] . Along with the benefits, there are several risks in purchasing medicines online [3] . Due to home delivery of medicines that too at discounted rate the online pharmacies are gaining popularity over conventional pharmacies. Convenience, cost effectiveness and the availability of less commonly prescribed medicines and 24/7 access are all advantages that contribute to encouragement of online pharmacies. While the risks are disadvantages are counterfeit medicines, drug abuse, medication error etc [4]. Online pharmacy has not only benefits but also have some patient safety risks in purchase of medicines apart from traditional chain1. Due to covid-19

lockdown mostly consumers prefer to purchase medicine online. Governments are taking all essential steps for protecting lives by imposing lockdowns, testing, segregation, and treatment. E-commerce companies have witnessed that orders as customers are in online is spike about 20-30% [5]. Globally 2986 online pharmacies were operating in the year 2008[6]. In India 65 Online pharmacy startup were established in 2005 so we have to change the traditional approaches in pharmacy especially the Internet which adds immense value by improving accessibility of healthcare services even to the most remote regions of the country So that's why companies are promoting their business through digital technologies and online medicine purchase is popular worldwide due to convenience [7]. In India e-Pharmacy is at its beginning in India with various affects, may be in future it has the potential to be a very large industry segment [8].

CURRENT KEY PLAYER OF E-PHARMACY :-

Top 6 e-pharmacy apps/websites in India

"DETAIL INFORMATION OF SOME E-PHARMACY APP

ACCORDING TO YEAR 2021-22[49].

A. NetMeds:

➢ Founder and CEO-Pardeep Dadha
➢ Headquater-chennai ,Tamil Nadu,INDIA
➢ Last 30 days download-353,365
➢ Total funding amount-$99M
➢ Vice president –Aman madan
➢ Number of funding : 03

B. Practo

➢ Location: Bangalorekarn-atakaIndia
➢ Total funding amount-$228.2M
➢ Last 30 days download-19,150
➢ Number of investor-14
➢ Co -Founder- Abhinav lal
➢ Monthly visit-14,376,647

C. Pharm Easy:

E. MedLife

- Location- Mumbai ,Maharashtra,India
- Total Funding -$1.5B
- Last 30 days download-36,272
- Monthly visit: 8,353,060

- Parent: PharmEasy (100%)
- Headquarters location: Bengaluru
- Number of employees: 5,000

D. 1Mg:

- CEO- Prashant Tandon_ (2012–)
- Headquarter: Gurugram
- Parent: Tata Digital (Majority stake)
- Last 30 days download-245,968
- Founders: Prashant Tandon, Vikash Chauhan, Gaurav.

1.1 E-Pharmacy :-

E-pharmacies or online pharmacies are online platform through which consumers can order medicines online without the need for visiting pharmacies this makes the process more convenient for consumers and as result the demand for e- pharmacy is increasing globally. The internet has made things very convenient and easy to access. Application of e-commerce in medicines led to the beginning of online pharmacies which was first started in the united state in the year 1999. This includes the selling of prescription and non-prescription drugs. However, after China's food and drug authority published the provisional internet rules for review, the official clearance for online medication transaction services began on December 1, 2005.

An e-pharmacy fulfill no. of functions that are:

• The distribution or sale of medicine, including repeat prescription services

• The distribution of other healthcare articles

• Providing information about drug

• Providing advices about signs and symptoms of any disease[9].

In past time hand written prescription method for distribution of medicine was favorable but the market of medicine distribution is now being replaced because the boom in the e-commerce so the medicine also distributed online by giving electronic prescription and commonly known as e-pharmacy and also known as, Online, Internet, Cyber, Tele pharmacy[10]. E pharmacy is a pharmacy that operates over the Internet and sends orders to customers through mail, shipping companies, or online pharmacy web portal. In 2018 the report shows that global e-pharmacy market was approximately USD 42.32 billion and it is expected to generate around USD 107.53 billion by 2025, at a CAGR of around 14.26% between 2019 and 2025 (Globe news wire 2019) [11]. Many e-Pharmacy key players are Pharm easy Medlife, 1MG, Net meds Myra, Care On Go and Pharma safe operates online business. Med life is leading with about 30% market share of the total e-pharmacy market in India [12,13].

1.2 Types of E-Pharmacies:-

1. Type : it is like a traditional pharmacy store which do not rely on any particular e-pharmacy company. It directly works by dispensing a medicine soon after receiving a prescription via mail [14].

2. Type: It is comparable to a brick-and-mortar pharmacy, with the branch network of a major drugstore acting as its actual showroom. In this type of e-pharmacy medicine is provided to consumer without any physical consultation. In this medicine given is totally dependent on the questionnaire prepared by physician [14].

3. Type: in this type the dispensing of medicine is done without a prescription. Type 1 pharmacy works with a certification received from a private organisation and license from the state in which they operate. The other 2 types raise public safety concern[14]. Online business model is as shown on **Fig1.**

Fig. 1. E-Pharmacy model
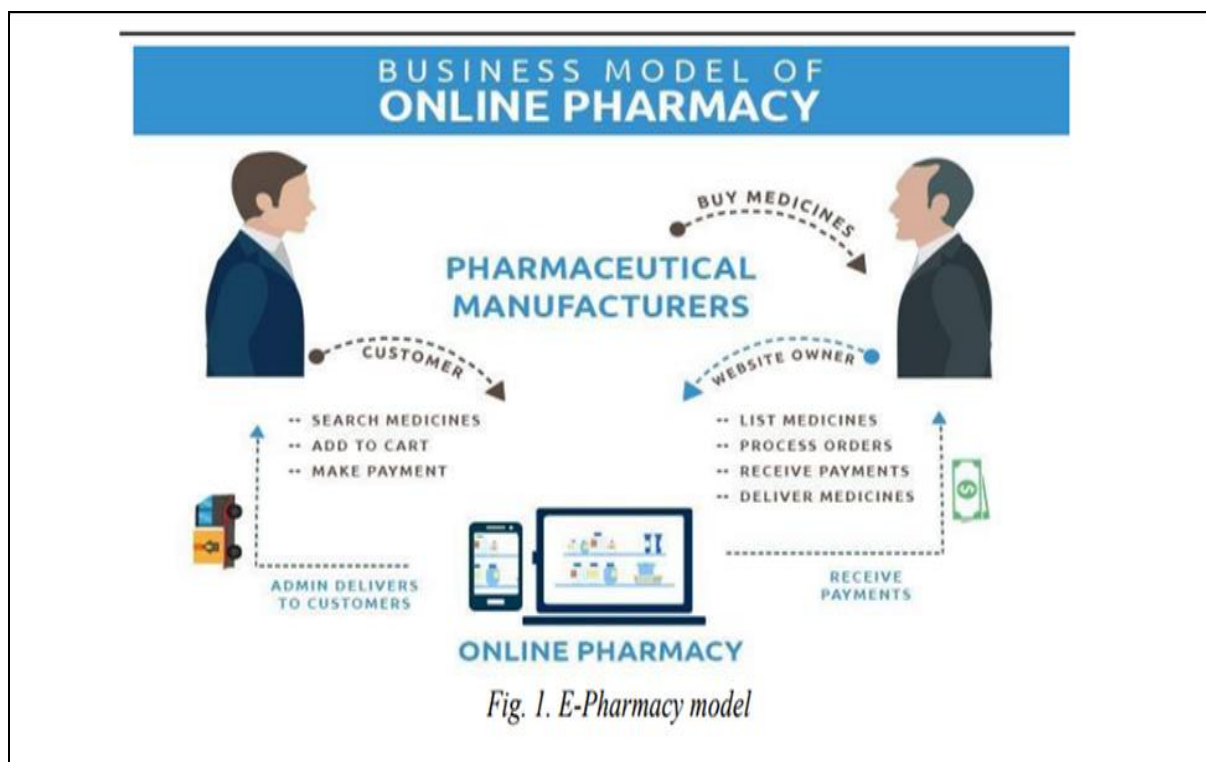
1.3 Advantages :-

1. Money saving

2. Saving Time

3. Consumer convenience is increased

4. Medicines availability is increased

5. Easy accessibility to medicine

6. 24/7 access possible

7. Policy of refund

8. One can easily compare medicines in terms of cost

9. Increased consumer information and information exchange

10. Privacy

11. Delivery of medicines at desired place at desired time possible

12. Fast distribution

13. Increased choice as wider variety of medicines available.

14. Convenient for some patients and old age people who can't leave their home[17].

1.4 Disadvantages:-

1. Chances of drug resistance and interaction

2. Promote self-medication

3. Chances of drug abuse

4. Financial privacy issues

5. Chances of misdiagnosis

6. Chances of drug misuse

7. Purity and quality of drugs not assured

8. Electronic health records security and privacy concerns

9. Risks associated with online purchasing of drugs

10. Medical privacy is a major concern

11. Easy availability of illegal substances

12. Sale of drugs without prescription by some e-pharmacies which lead to harmful consequences

13. Online prescription without consulting a doctor

14. Doctor's prescription may not be honoured

15. Doctor [18].

1.5 Challenges & Difficulties :-

1. For governing e-pharmacies in India a substantial legal guidelines is need.

2. To promote drug to the minor.

3. Reach of era pushed version to uneducated humans because of lack of know-how approximately internet.

4. Speed of internet.

5.Prescription associated issue.

6.Identity and consistency of immoral e-pharmacy.

7. Safety of consumer right.

8. Accessibility virtual signature.

9. Shipping or sale of drugs to youngsters.

10. Safeguard Of client rights.

11. Privacy and confidentiality of details interchanged.

12. Unclear suggestions and legal guidelines on inter-nation

transfer of drugs [19].
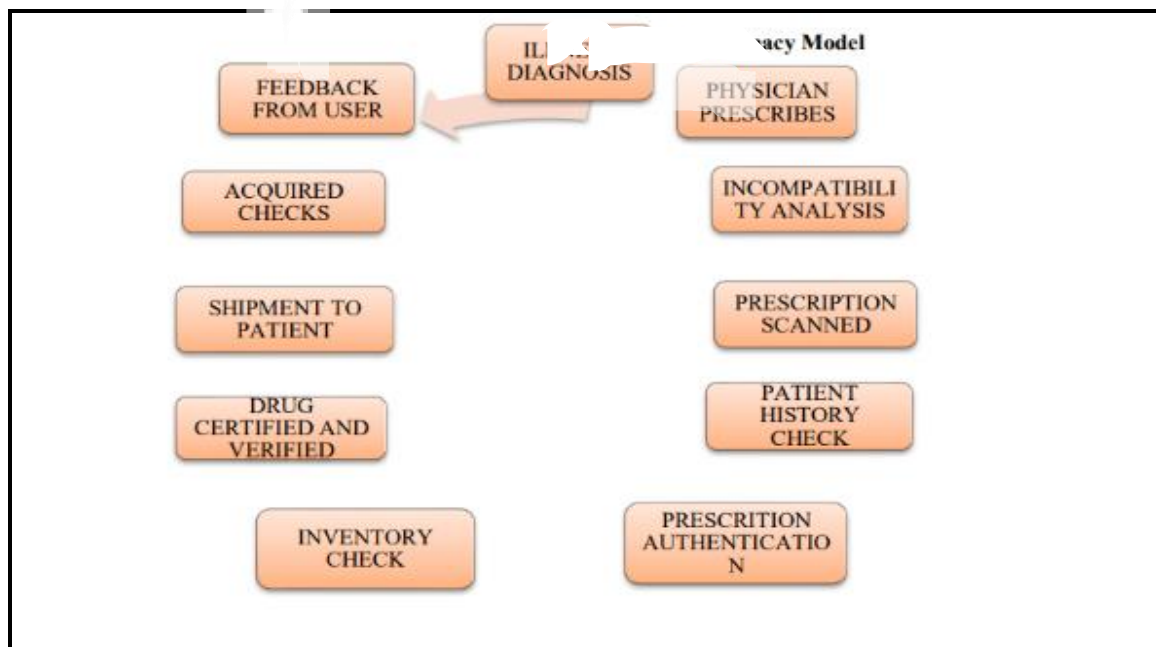
E-PHARMACY MODEL [15].

1.6 How does an E-Pharmacy model work?

1. A scan copy of prescription uploads on the Web or Mobile-based application for medicines request.

2. A team of a registered pharmacist should be checked and verified each and every order.

3. The validated prescriptions send to the pharmacy store by registered pharmacist where medicine can be dispensed

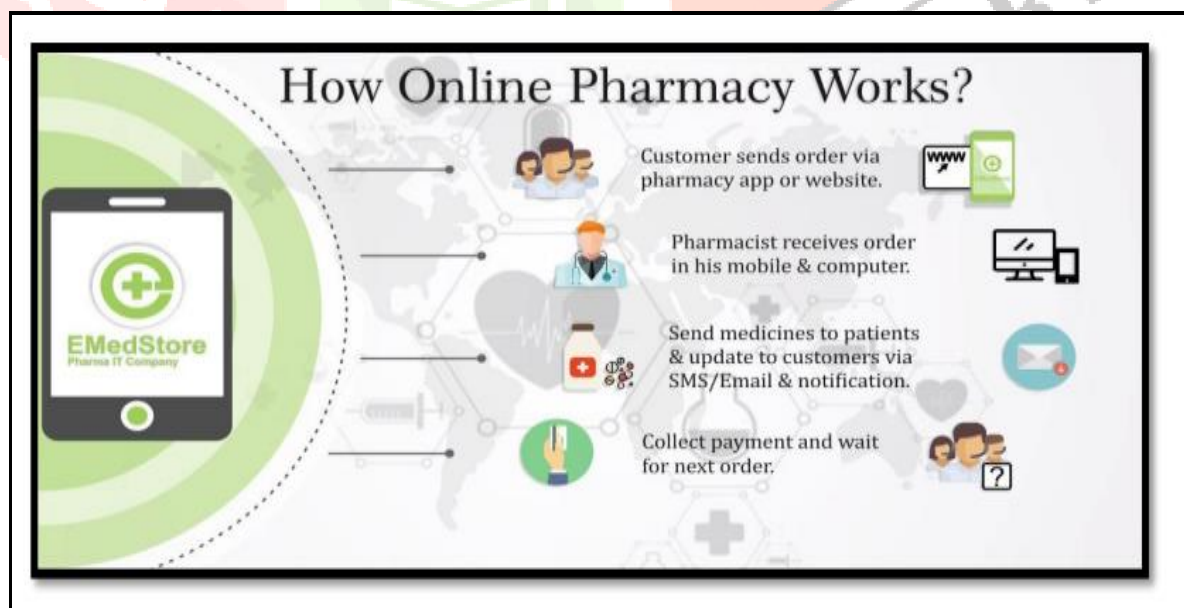4. All the consumer and pharmacy store activity is govern by IT Act 2000 on the web or mobile based system[16].

Fig.2 How online pharmacy work

1.7 CHARACTERISTICS OF ONLINE PHARMACY :-

1. Requirements for prescription: The online pharmacy received the prescriptions as a scanned copy through email. As some of the online pharmacies request for updated prescriptions also. Some consumers order prescription medicines online, without a prescription especially from a rouge pharmacy. The majority of pharmaceuticals products that are bought are used to treat chronic diseases like psychiatric or cardiac diseases. The patients who are suffering from mental illness mainly misuse the online pharmacies by stocking drugs which they believe are effective for their condition without a prescription. The Patients who have prescriptions also misuse online pharmacy Therefore, some rules and regulations should be made to prevent multiple use of same prescription[37].

2. Contact information: Numerous internet pharmacies give their contact information. So many pharmacies display their contact no. for costumers' enquiries. So, it is convenient for consumers to enquire any online pharmacy before the purchase any medicine or place order. some pharmacies had post the owners or directors details. To address this issue, it is advised that each nation's pharmacy .

3. Geographical details: People who frequently utilize online pharmacies end up importing these medications from other nations. However, they may or may not be legal given that the majority of nations lack adequate regulations to either permit or forbid internet pharmacies.

4. Drug prices: One of the main causes of excessive exploitation and abuse of internet medications was the cost of the drugs. For instance, several online pharmacies provide discounts on medications to customers who purchase large quantities. This tempts consumers to purchase pharmaceuticals already on hand, which results in drug abuse that is hazardous to patients .

5. Marketing strategies: Some of the tricks or marketing strategies are decrease in prices as compared to "traditional pharmacies", offering free deliveries, providing points on every purchase, and giving special discounts. Pharmaceutical product or medication marketing is mostly based on promotional incentives made by businesses, such as price cuts that may raise the risk of drug abuse. their goods as a result.[37]

6. Quality of online pharmacies: some of the professional organisations has developed a certification and legitimation for the online pharmacies for better consumer safety. This regulation are set to distinguish between reliable online pharmacies from illegal websites. 17% of the selected online pharmacies, according to the national association of boards of pharmacy (NABP), are illegal. [37]

7. Durations of websites' establishment and their privacy policies: The duration of time that an online pharmacy has been operating can be used to assess its legality. Limited patient and patient safety information sets apart e-pharmacies that operate non-prescription e-pharmacies. Such pharmacies ultimately end [37].

1.8 LAW'S OF PHARMACY :-

According to supreme court declaration, except in emergency cases, doctor cannot consult through phone. As far as India is concerned, there are no dedicated e-health and telemedicine laws in India.

There are no well defined laws for online pharmacies .The laws applicable are:

- Drug and cosmetic Act 1940.
- Drug and cosmetic rules 1945.
- Pharmacy Act 1948.
- Indian Medical Act 1956.
- Laws related to web marketing are defined under the Information Technology Act 2000[20].

The regulatory stance of the meals and drug management concerning net pharmacies

Under the Federal Food, Drug, and Cosmetic Act, FDA has the legal authority to do so against:

- The importation, sale, or distribution of an adulterated or misbranded drug;
- The importation, sale, or distribution of an unapproved new drug;
- Ilegal advertising of a drug;
- The sale or to give a prescription drug without a legitimate prescription; and Counterfeit drugs [21].

1.9 FACTORS OF ATTRACTION TO BUY MEDICINE ONLINE :-

- Choice of delivery time and address (18.56%).

- Reduce visits to pharmacy (26.94%).

- Attractive discounts on prices and offers (32.63%).

- Freedom to choose any brand of drugs of given generic name (14.67%).

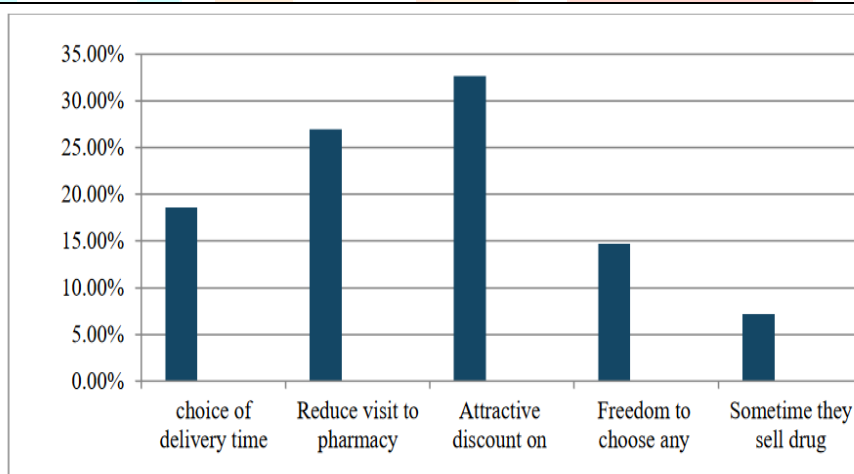- Some times they sell drugs without prescription (7.18%) [48].

Fig. 3: Factors of attraction

2. E-PHARMACY REGULATION IN INDIA :-

Regulatory powers in India have been distributed between the central and the state governments State goverments mainly responsible for the manufacturing sale and distribution of medicines while Central Government provide licensing to import of medicines [22]. Two main organization in Central and State Government for the regulatory control over drugs are Central Drugs Control Organization (CDCO) leaded by the Drugs Controller General India and Drugs Control Administration (DCA) leaded by the State Drugs Controllers. States has its own Drugs Control Administration. Law which control over pharmacy regulation are Drug and Cosmetics Act 1940, Drugs and Cosmetic Rules 1945, Pharmacy Act 1948, Indian Medical Act 1956 and Laws related to e-commerce are defined under the Information Technology Act, 2000. Except emergency cases, doctor cannot consult through phone said by Supreme Court. As far as India is concerned, there are no dedicated e-health and telemedicine laws in India. So basically there is no law control over E-pharmacy [23] .

The Bombay high court, on October 15, in a public interest litigation (PIL) announces that the online pharmacies who are selling scheduled H drugs of the drugs rule without prescription and proper cash memo are illegal and told the state govt. to take strict action against these types of acts. After this in July 2016, the govt. of India gave support to internet pharmacies and central drug standard control organisation (CDSCO) circulated directions to all the regulatory authorities of state govt. that there is no offence to the internet pharmacies if they are not violating any law or act which are applicable to pharmacy stores like drug and cosmetic act 1940 and its rules and information technology act 2000. In order to obtain a license for an online pharmacy, interested parties must submit Form 18 (AA) through the central government's internet portal to the central licensing body. The applicants must comply with the provisions of the Information Technology Act 2000 and pay INR 50,000 for e -pharmacy registration. The CDSCO, India's top pharmaceuticals regulator and central licensing agency, requires registration of all new online pharmacies. For e-pharmacies to offer medicines throughout the nation, a single state's license is all that is required. The validity of e-pharmacies license are only 3 years from the date of issue and after expiry it has to be renewed if one wants to continue to rum their online store [24].

3. E-PHARMACY DRAFT RULE & GUIDELINES :-

Union Health Ministry drafted some rule for the proper regulation of the e-pharmacies on the selling of drug at 28th August 2018. DCGI is a sole agency that should propose the draft guidelines. Two regulatory bodies keep on eye the regulation of the e-commerce of online pharmacies business that is Drugs and Cosmetics Rules 1945 as well as the Information Technology Act 2000[25]. For e-Pharmacies companies are required to take one license in any state and it enable the pharmacies to sell drugs all over the country. If in any circumstances portal failing the follow the guideline under the regulation there should be suspension and cancellation of e-pharmacies so portal should comply all the provision under The Drug and Cosmetic Act, 1940 . Narcotic Drugs and Psychotropic drugs do not come under e-Pharmacy sale[27].

RULE:-

A. Key points from the draft rules licensing : -

Anyone with the intention of performing the business of E-pharmacy will need to register with the Central Li- censing Authority (CLA) by providing complete information in accordance with Form 18AA together with a registration charge of Rupees 50,000. The CLA is a licensing agency appointed through the central Government under the D&C Rules (1945). If the e-pharmacy is charged by registered pharmacist and the internet portal is situated in India only the registration is granted.

Form 21 AA under Rule 67N is used for the grant of registration, the validity of three years when all requirements of the applications are fulfilled. For the renewal of registration Form 18AA together with specific documents are submitted.

B. Registration :- The specified conditions for the registration of an e-pharmacy registration holder are enacted in rule 67-M. A number of conditions encompass being complying with Information Technology Act, information's about patients to be preserved confidential, the availability of medicines being formed towards cash generated over the e- pharmacy portal, reporting the Central License Authority (CLA) in the instance of any alteration in the organization of the firm takes place, e- pharmacy proceedings had not been conducted with regard to any medicine mentioned in e Narcotic Drugs and Psychotropic Substances Act, 1985, and the medicines be indicated in the Schedule X of the Rules .

C. Periodic Inspection :-

The assumption where ever the online pharmacy company is carried out will be inspected every two years by the CLA [28].

4. E-PHAEMACY IMPACT ON ECONOMY GROWTH :-

Telemedicine have adapted at the time of lockdown by governments, hospitals, e-pharmacies and even corporate for their employee wellness [30].
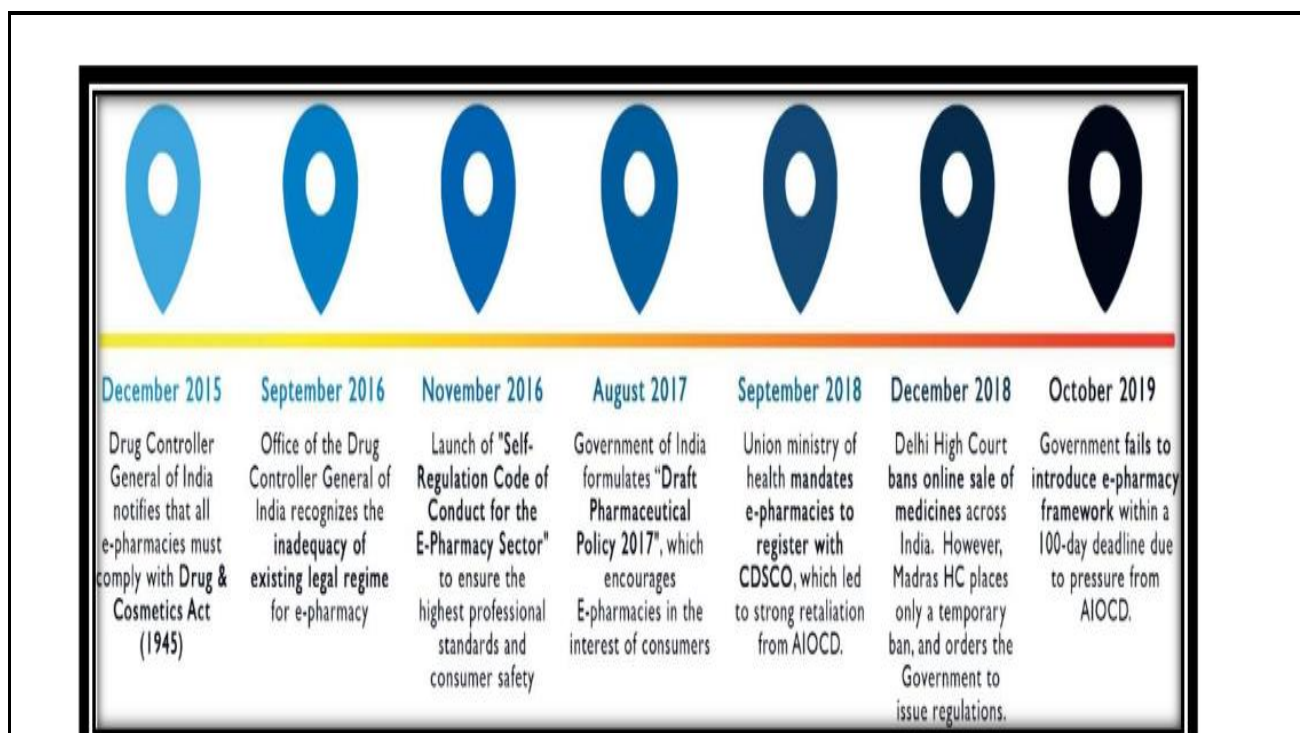
In 2016 E-Pharmacy market was valued USD 33.03 billion is projected to grow at a CAGR of 14.8% during the forecast period. Use of internet increased day by day which impact on the improved healthcare infrastructure, rapid aging of the population and e-commerce growth Furthermore, rising adoption of ecommerce and digital technologies in healthcare sector is expected to propel growth [31]. Online pharmacy market in India is in an emerging stage compared to the other developed economies and the major developing economies. In recent years around 250 online pharmacies has prung up in the country. According to Frost & Sullivan, the e-pharmacy market in India is estimated to grow at an exponential CAGR of 63% and reach $3.6 billion by 2022 from the current $512 million market (2018). E-pharmacy presently accounts for ~1.5-2% of the total pharma sale according to NetMeds, and 10% growth estimated for coming 2023 [32].

5. E-PHARMACY IMPACT ON SOCIETY :-

E-pharmacy will be work with other healthcare organizations, professionals, and government agencies to address in that panic situation for customers. As already discussed E-Pharmacies give add value in the health care system because it is more convenient and easily accessible in the pandemic condition when consumers are not go outside due to lockdown and safety concern matter. It is also approachable services due to transparency of price, medicine reminder with health care service provider scheme. E-pharmacies slog as "Evolving as a One Stop Solution for All Healthcare Needs".

Medlife spokesperson said, "Our vision has always been to provide as many people with easy access to our end-to-end healthcare offerings from the comfort of their homes. The ongoing Covid-19 pandemic has not altered this vision in anyway, but has pushed us to augment our services, being the largest e-health enterprise in the country. While online medicine delivery service is our main pillar, other services like consultation services and home diagnostics have also seen a spike. With more and more people opting to stay indoors, we are ensuring that they do not forego their necessary diagnostics tests by sending our phlebotomists to their doorsteps."

Some factors why e-pharmacy gains popularity are India ranks high in premature deaths caused by non-communicable diseases according to the WHO. Day by day these chronic diseases in India are growing very fast. These non-communicable diseases affect by rapid urbanization, mechanization, increased motorization and sedentary lifestyle, especially in adults. The Internet gives knowledge of all the medicines with the help of qualified specialists and doctors, so it difficult for physically locate consumer [33]. The e-pharmacy websites provide health blogs which provide information about the drugs purchased like indications, adverse effects and dosage requirement. They also provide information and awareness about various medical conditions to increase patient education and awareness. E-Pharmacy model also give knowledge about the diseases, preventive measure, side effect, and adverse effect and interaction of drug just like in the covid-19 information spread globally with the help of internet [34].

December 2015	September 2016	November 2016	August 2017	September 2018	December 2018	October 2019
Drug Controller General of India notifies that all e-pharmacies must comply with Drug & Cosmetics Act (1945)	Office of the Drug Controller General of India recognizes the inadequacy of existing legal regime for e-pharmacy	Launch of "Self-Regulation Code of Conduct for the E-Pharmacy Sector" to ensure the highest professional standards and consumer safety	Government of India formulates "Draft Pharmaceutical Policy 2017", which encourages E-pharmacies in the interest of consumers	Union ministry of health mandates e-pharmacies to register with CDSCO, which led to strong retaliation from AIOCD.	Delhi High Court bans online sale of medicines across India. However, Madras HC places only a temporary ban, and orders the Government to issue regulations.	Government fails to introduce e-pharmacy framework within a 100-day deadline due to pressure from AIOCD.

THE ONGOING PREDICAMENT OF E-PHARMACIES IN INDIA [42].

SOME ONLINE PHARMACY STARTUP :-

Sr. No.	Online Startup	Location	Website	Target
	1 mg 2015	India	www.1mg.com	Online pharmacy market-region with health practitioner list and tele session service.
	Healthkart 2011	India	www.healthcart.com	Online keep for health, sports activities and dietary supplements.
	Medlife 2014	India	www.medlife.com	Medlife gives an app for getting medicines
	Emedix 2016	India	www.emedix.com	It offers higher transport and high quality carrier to the customers nation wide.
	Netmeds 2015	India	www.netmeds.com	It gives a online platform selling prescription, non-prescription drug and healthcare and well-being product..
	PharmEasy 2015	India	www.pharmeasy.com	Mobile-first hyper-local platform for drug ordering and diagnostic testing.

Table 1 : Some of the startup of online pharmacy in India [35].

6. E-PHARMACY IMPACT ON PANDEMIC SITUATION :-

- also impact by this pandemic situation. The pharmaceutical industry in India is the third largest drug producer by volume and 60% of vaccines are manufactures in country[44].
- The cost of the raw material and drug hiked up almost in all over the world due to lockdown for example in India price of paracetamol has gone up to 400-450 Rs per kg from 250- 300 Rs per kg and also price of vitamins and penicillin have increased by 40- 50 % [45].
- India is major source of APIs for generic drug manufacturing across globe and also supplies approximately 30% of the generic APIs used in the US. Somehow formulations of drug in India depend upon the China APIs and procure around 70% from China. According to a recent survey, emergency care, anesthesia care, and pain management drugs are the drugs which mostly get affected due to shortage in the pandemic situation [46].

- The impact of Covid-19 on demand for drugs availability and the lockdown in various countries so FDA may be force to allow some relaxation policy in review process and regulation on devices.
- Approximately 10 to 15% earning of pharma firms cutdown due to Covid-19 because of disruption of supply chain.
- Digital health platform is booming at the pandemic time.
- The Indian government takes a beneficial step by proposing an incentive package of 13.76 billion Indian Rupees for the promotion of domestic manufacturing of critical key starting materials, drug intermediates, APIs and medical devices [47].

7. FUTURE SCOPE OF E-PHARMACY :-

1. **Increased Accessibility**: E-pharmacies will enhance access to medications, particularly in remote or underserved areas. Patients will benefit from home delivery services, reducing the need to travel.

2.**Telemedicine Integration**: The rise of telemedicine will complement e-pharmacy, allowing healthcare providers to prescribe medications digitally and facilitating easier patient access to both consultation and medication.

3.**Personalized Medicine**: Advances in data analytics and AI will enable e-pharmacies to offer personalized medication management based on individual health data, preferences, and genetic information.

4.**Regulatory Frameworks**: As e-pharmacies become more prevalent, governments are likely to develop clearer regulations to ensure safety, security, and quality control in online pharmaceutical sales.

5.**Blockchain Technology**: This technology can enhance the transparency and security of drug supply chains, helping to prevent counterfeit medications and ensuring the integrity of products sold online.

6.**Mobile Health Apps**: The development of mobile applications will facilitate medication reminders, adherence tracking, and easy access to pharmaceutical consultations, making it easier for patients to manage their health.

7.**AI and Chatbots**: AI-driven chatbots will provide instant support and information to customers, improving the user experience and assisting with common inquiries about medications.

8.**Diverse Product Offerings**: E-pharmacies are likely to expand their product lines to include not only prescription medications but also over-the-counter drugs, wellness products, and health supplements.

9.**Global Market Expansion**: As internet access increases worldwide, e-pharmacies will reach new markets, providing services in emerging economies where traditional pharmacies may be lacking.

10.**Focus on Patient Education**: E-pharmacies can play a vital role in educating patients about their medications, side effects, and proper usage through online resources and customer support[50].

11.**Raceability and transparency :** In all three countries, the potential for e-pharmacy to improve the traceability and transparency of medicines sales was emphasised by interviewees. The online nature of e-pharmacy transactions is believed to allow for greater transparency, if relevant records are made available to regulators[51].

12.**Market consolidation** : Currently, pharmacy markets in all three study countries are highly fragmented, characterised by a very high number of independent brick-and-mortar retailers and wholesalers. The growing e-pharmacy segment offers the potential for some degree of consolidation within these markets, leading to upstream economies of scale in website platforms, procurement and distribution [52].

8. SOME ISSUES RELATED WITH ONLINE AVAILABILITY OF MEDICINE :-

- This encourages extra self-medication like OTC.
- The drugs require suitable storage for preserving effectiveness.
- There is not guarantee of temperature manipulate both at their storage space factors or all through transfer.
- The sufferers loose the possibility to have a head to head dialogue with the expert pharmacists.
- The brand names can also additionally frequently purpose uncertainty.
- There can be the equal brand however with extraordinary drugs. Ultimately, the affected person is at receiving and getting incorrect drugs.
- The maximum concerned factor is the sale of antibiotics; India is already combating towards antibiotic resistance for unreasonable use of antibiotic [43].

9.MEASURE TAKEN TO AVOID MISUSE OF E-PHARMACY :-

1. 1.Before stopping the misuse of online pharmacy, patients must stop the non-medical use of prescribed drugs like stimulants, sedatives or opiod ache relievers.
2. 2.Patients can take steps to make certain that they use prescription medicinal drugs correctly through:
3. Never change a dosing routine without first discussing it with the doctor Sever the usage of some other person's prescription, and never giving their prescription medicinal drugs to others [40].
4. Storing prescription stimulants, sedatives, and opioids safely.
5. 5 Patients must well discard unused or expired medicinal drugs.
6. Schedule H and schedule X drugs can't be offered without prescription as it is simple for nearby pharmacy shops to confirm the authencity of a prescription, because it consists of information like registration wide variety of scientific practitioner and call of the health facility and there's no such checking through net shops.
7. 7.According to the document of excessive stage authorities assembly seeing that doctor's prescription is obligatory for getting medicines, e-pharmacy will want to require show the portal hyperlink on their web page for authencity verification through patients or customers [41].

10. GOVERNMENT INITIATIVE :-

Government of India headed Digital India program perceiving a transformation of country into digitally empowered society with economy knowledge. This program insures that services of Government's are available to citizens by electronically. Government initiatives in E-health care system. The Ministry of Health & Family Welfare has undertaken various initiatives using Information & Communication Technologies (ICT) for improving the efficiency and effectiveness of the public healthcare system. The parts of the e-health care are National health portal, e-Hospital @nic, online registration system and SUGAM [38]. These government initiatives will provide online platform for the patient's services and also make people familiar about online health system. Another scheme is Ayushman Bharat Health Insurance Scheme which provides service to create a healthy, capable, and content. Some E-pharmacy startups have tie-ups with health insurers and customers get medicines at cheaper prices which affectively increase the ratio of buying medicines through e-Pharmacy portals. For giving push to the make in India initiative DCGI announced a plan of single-window facility start soon for aiming ease of doing business. Jan Aushadhi Program: This model creates awareness and easily access low price medicine to the population without any compromise in quality. Jan Aushadhi stores provide high quality generic drugs at low prices, create awareness through education and publicity that high prices of drug does not imply high efficacy and potency, Encourage doctors, more specifically in Government hospitals to prescribe generic medicines [39].

COMPARISON BETWEEN ONLINE PHARMACY &OFFLINE PHARMACY :-

Online pharmacy	Offline pharmacy
1. Rapid doorstep delivery of medications and ease of usage favoured by elderly and physically handicapped people taking chronic medicine.	To obtain medication, one must move around physically.
2. Improve the price and include additional discounts.	No discount, medicines are sold at MRP rate only.
3. E-pharmacy abides by the offline regulatory system because it lacks its own laws.	Offline pharmacies have its own proper rules and regulations for the sale and manufacture of drugs along the nation.
4. Due to the integration of numerous retail pharmacies onto a single platform, they may provide a large variety of medications and services.	In offline pharmacies the stock is limited that's why unavailability of medicines is a common problem, and an individual has to visit more than one medical store to get the desired medicine
5. A technology that connects a network of pharmacies decreases administrative costs and working capital while increasing profitability.	Offline pharmacies experience low industry margins as a result of increased rivalry among physical storefronts.
6. Data security can be an issue because patients are required to disclose personal information, like their address, phone number, and disease profile.	In offline pharmacies no personal information or any kind of data is asked at the time of purchasing.
7. E-pharmacies are expanding steadily. There are 250 online businesses at the moment, and in 2022, the industry is projected to develop at a CAGR (compound annual growth rate) of 63% and reach $3.6 billion.	Due to its extreme competition and intense price-control pressure, the retail pharmacy business faces uncertain stability and slow development.
8. E-pharmacies sell prescriptions as well as value-added services like e-consultations, e-diagnostics, details on medications and illnesses, and health insurance services.	Drugs are the only thing sold at offline pharmacies.

TABLE .2

11. CONCLUSION :-

We outline the role of e-pharmacy services have the potential to significantly improve healthcare access and convenience for patients. The importance of Indian online pharmacy was highlighted in the COVID-19 pandemic. Then we discuss the about impact, rules, guidelines & regulation of e-pharmacy on society and economical growth in India. Then doing work on online pharmacy we learn many new things about the online pharmacy and it was a wonderful learning experience for us. we learn a proper rules and regulations, proper usage steps of e-pharmacy and factors of attraction on pandemic situations of online pharmacy. and then at the last, we will discuss about measures taken to avoid misuse and future of e-pharmacy will evolve if proper regulatory framework will be established for e-pharmacy.

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