

To Study Consumer Awareness and Preference of E-Pharmacy during the COVID Period: With Reference to Coimbatore City

Nandagopan G

Abstract: *The pharmaceutical business is one of the world's largest. According to the equity master report, it ranks third in volume sales and sixteenth in incentive. The terms "digital marketing" and "electronic marketing" are frequently used interchangeably. Pharmacy Company sells prescription drugs and other healthcare products online. Indian pharmacies are currently operating both online and offline. We are all consumers unique. Some people like a product or service that others do not. Consumer behaviour and buying habits may help determine the various factors that impact a customer's purchase choice. COVID-19 is a new sickness for the whole world. It has a big impact on people's lives, especially their health. Covid-19 has revolutionised the consumer's business environment and shopping behaviours. Customers may refuse many items, but not medications. With e-pharmacy, people may order medications and other pharmaceutical supplies from the convenience of their homes. Geography affects consumer preferences and buying habits. This study's purpose is to learn more about consumers' attitudes about online pharmacies. The validity of this study is evaluated by the replies to a survey (N=250). Although e-pharmacies are important to the Indian economy and health care system, the legal environment is similar. The pandemic has increased the use of online e-pharmacies in Coimbatore, the survey found.*

Keywords: E-Pharmacy, Medicines, COVID 19, Consumer, Buying, Behavior, Online

1. Introduction

People in India have been lured to purchase medications online since e-commerce has exploded at an exponential rate. The issue of internet pharmacies is one that will get a great deal of interest in the coming days. An online pharmacy is a website that offers pharmaceuticals that have been prescribed by a physician. The distribution of medicinal products.

The pharmaceutical business is one of the most respected in any country, and it is especially so in Japan. According to the equity master report, it ranks third in India in terms of volume of sales and sixteenth in terms of incentive payments per employee. Occasionally, the word "digital marketing" is used interchangeably with other terms such as "electronic marketing" or "internet marketing." Internet portals are used to distribute anything from prescription prescriptions to other healthcare products. Pharmacy Company is one such company. Currently, the Indian healthcare industry is growing at a quick pace, with both online and offline pharmacies functioning in the country. The benefits of using an online pharmacy include principally privacy, a large variety, reduced pricing, home delivery, and convenience, among other factors. Electronic pharmacies, without a doubt, improve the ease and accessibility of pharmaceuticals for consumers. Current leading e-pharmacy players include 1mg, Net medicines, MChemist, Myra, and Medlife, among others. 1mg is the largest online pharmacy in the world. The notion of using an online platform is not a new one. It has only recently had a resurgence in the age of the internet. Beginning at the end of the 1980s, pharmacies in the United States started providing prescription drugs via mail order to patients who had been prescribed by a physician. Later, in January 1999, this mail order company evolved into soma.com, which was the world's first web-based pharmacy at the time. The debut of the online pharmacy in the United Kingdom followed shortly after that. As of mid-2004, studies suggested that there were more than 1000 sites

selling medications on the black market. The retail pharmacy has long been the principal supplier of medicines for the general populace in the Indian sub-continent. As a result, retail pharmacy shops are beneficial to those living in rural and distant areas of the country. A significant section of the Indian population does not buy medicine online, either because they are unfamiliar with the notion of online drug stores or because they lack fundamental requirements such as access to the internet. No matter how you look at it, things are changing right now. Increasing computer skill, internet accessibility, and the prevalence of smartphones are all contributing to this trend. Despite the fact that pharmacies were authorised to stay open during the lockdown, many people took advantage of the opportunity to acquire drugs and other pharmaceutical supplies via online pharmacies

The legal organisation for e-pharmacy in India was established in 2007.

In India, we have a number of different Acts that regulate pharmaceuticals and cosmetics. All of these Acts, on the other hand, were rather out of date; they were passed long before the invention of computers and the widespread use of the internet. Aiming to address gaps in the Drug and Cosmetics Act of 1940, the Drug and Cosmetics Rule of 1945, the Pharmacists Act of 1948, the Indian Medical Act of 1956, and the Drugs and Magic Remedies Act of 1954 that do not contain provisions for the online purchase and sale of pharmaceuticals, the Information Technology Act of 2000 is being considered for regulation of e-pharmacy. It seems that online pharmaceutical websites are not complying to these centuries-old Acts, but rather are attempting to evade its provisions. The 1940 Drug and Cosmetic Act makes it very clear that a pharmacy must have a legitimate drug licence in order to sell a medication, and that the medication may only be sold with a valid doctor's prescription in order to sell the medication. A restricted drug is one that may only be obtained by using a valid prescription from a physician. Schedule H and X pharmaceuticals are examples of restricted drugs. An

Volume 11 Issue 5, May 2022

www.ijsr.net

Licensed Under Creative Commons Attribution CC BY

original copy of the prescription must be retained at the pharmacy for a period of at least two years for record-keeping reasons [8]. After validating the authenticity of the e-prescription, several reliable online pharmacies will only provide medicine to customers. The following is how the Pharmacy Practice Regulations 2015 define e-prescriptions: (j) When a Registered Medical Professional or other duly licenced professional, such as dentists, veterinarians, or other licenced professionals, gives a pharmacist written or electronic direction to compound and dispense a specific form and quantity of preparation or prefabricated medicine to a patient [8, the term "prescription" is used. It is required that a pharmacist be present when a patient receives medicine under the terms of Rule 65 of the 1945 Drug and Cosmetic Regulations. Despite the fact that offline pharmacists are often antagonistic to the concept of e-pharmacy, we can see that they are also failing to perform their jobs to a satisfactory level. The majority of pharmacists administer medication without a valid prescription, the majority of pharmacists do not thoroughly verify the prescription, and the majority of pharmacists are simply absent from their respective pharmacy stores. They just rented the medicine licence that belonged to their pharmacy owner. As a consequence, self-medication, drug addiction, drug dependency, and antibiotic resistance are becoming more common in India. . E-pharmacy has the potential to alleviate all of these concerns. The majority of e-pharmacies will not supply medicine unless the customer has an active electronic prescription [9]. In India, the government has established rules for the sale of pharmaceuticals via e-pharmacies, and we may be certain that the country will soon have a well-defined legal framework controlling online pharmacy and telemedicine.

Consumer preference:

It is the subjective judgement of a person about a product that is referred to as consumer preference. In order to find the best deal on a product, buyers compare several competing brands and items. It is often measured in terms of their degree of satisfaction with those. Customers' decision may be influenced by a range of factors, including the offer/discount, the proximity of the store, their beliefs, their cognitive abilities, and their communication skills.

Global View: E-Pharmacy Consumer Buying Behavior

Earlier this year, in May 2017, ASOP Global commissioned a national polling organisation to do research on consumer behaviour and impressions of online pharmacies.

I Listed here are some of the most notable discoveries in the field of genetics. TAKEAWAY: Following knowledge of the facts, 59 percent of consumers oppose the importation of prescription medications.

The Online Pharmacy Industry is a growing industry.

- Around 35, 000 active online pharmacies operate on a worldwide basis, according to estimates.
- In the United States, 96 percent of online pharmacies are in violation of federal and state rules as well as pharmacy standards.

In addition, around 13% of online pharmacies (approximately 3, 400 sites) sell illegal drugs such as opioids.

Approximately 600 unlicensed online pharmaceutical websites are launched each month. Who Is the Target Audience for Online Pharmacies?

- Customers have little understanding of online pharmacies; just 27% of those polled said they were extremely familiar with them (see chart). Why Younger people, those with a higher monthly household income (above \$80, 000), and those who shop online for other items are the most inclined to consider purchasing medications online.
- When asked whether they would consider purchasing drugs online, 72 percent of daily social media users said they would, compared to 75 percent of non-social media users. Why Consumers who have previously bought prescription pharmaceuticals from an online pharmacy are more likely to do so in the future (74 percent). In order to locate online pharmacies, consumers should look in the following places: | One out of every five online pharmacy clients learns about the pharmacy via a web search.
- Safe-site lists are worthless when it comes to protecting customers. Customers who stated they would use a government-approved list of safe online pharmacies accounted for less than 5 percent of the total. Customer awareness of current tools to aid consumers in identifying safe online pharmacies is less than 5 percent, according to the study. These services include the Pharmacy programme run by the National Association of Boards of Pharmacy and the LegitScript URL checker. In the past, a little more than half (51 percent) of online pharmacy clients used a site that was not affiliated with their local brick-and-mortar pharmacy business. Customer purchases from a Canadian online pharmacy accounted for 9 percent of all online purchases in 2013. the purchase of 5% of medications from a foreign online pharmacy o 3 percent of respondents said that they were not aware of the location of the online pharmacy.

2. Literature Review

Researchers Srivastava et al., (2020) did a study on the usage and adoption of e-pharmacy by customers in India. Since many people in the general public do not understand how to use an online pharmacy and the benefits of doing so, it is vital to explain the use and benefits of e-pharmacies, as well as to give additional education to customers. Customers have usually expressed satisfaction for "home delivery" of prescriptions acquired over the internet, and many have said that they would prefer to purchase medications online in the case of an emergency illness. It appears from the findings that the e-pharmacy application should be straightforward to use. Having out-of-date and ambiguous information readily available would instil a feeling of mistrust in the minds of customers.

E-Pharmacy Impacts on Society and the Pharmaceutical Sector in an Economic Pandemic Situation was the subject of a study done by Singh et al. (2020). This study investigates the role played by online pharmacies during the

covid-19 outbreak in the United States. The author addresses the many beneficial consequences that e-pharmacy has had on society as a whole. Electronic pharmacies are intended to make drugs more widely available and affordable to everyone. Self-medication, on the other hand, is a serious concern with e-pharmacy. Since the Drug and Cosmetics Act 1940 and the Pharmacy Act 1948 were much too old and lacked provisions for the sale of medicines, the Government of India developed rules for the operation of online pharmacies.

A study by Anwar et al. (2020) investigated the following factors that influence people's preference for purchasing online medicines, as well as their effects on actual purchasing behaviour: For the sake of this research, it will be necessary to explore the multiple reasons why the general public has come to embrace electronic pharmacy. Among the most important considerations are cost-effectiveness, convenience, accessibility to pharmaceuticals that are not often given, and confidentiality. Additionally, the author highlighted a slew of other factors contributing to the expansion of India's e-rapid pharmacy, including the Digital India programme, a government-led e-healthcare initiative, and foreign direct investment in the country.

Several researchers, including Gupta et al., (2020), did study on consumer purchasing behaviour toward e-pharmacies. A random selection process was employed to pick 100 respondents from the city of Jaipur for this study, with each respondent being chosen at random. Additionally, the poll revealed that consumers had a high level of understanding of e-pharmacy. Residents in Jaipur may get medication from a variety of sources, including online and brick-and-mortar pharmacies. While the government and other relevant authorities have made significant strides in recent years, there is still more work to be done in educating the public about the many hazards connected with obtaining medicine from an e-pharmacy.

Salter and colleagues (2014) performed a study titled E-Pharmacies: An Emerging Market in Indian Retail Pharmacy: An Indian Perspective, which was published in the journal *Pharmacotherapy*. In this study, 252 respondents were polled, and the vast majority of them (66 percent) said that they had bought medicine online. In light of the fact that there is now no such appropriate guideline for selling medicine online, the author recommended that comprehensive verification of scanned prescriptions be performed throughout the order submission process and again at the time of delivery in order to avoid drug abuse.

In her paper, "E-Commerce: The Role of E-Commerce in Today's Business," Ms. Gupta (2014) provides a comprehensive overview of e-commerce while distinguishing it from e-business as a whole. A narrative analysis is used to describe and analyse different e-commerce models, including business-to-consumer (B2C), business-to-government (B2G), and consumer-to-consumer (C2C). Additionally, the researcher analyses the varied levels of knowledge about E-commerce that the general public has, as well as the extent to which they choose to do their business online in our country, among other things.

In "A Study on the Current Status of ECommerce in India: A Comparative Analysis of Flipkart and Amazon," Mishra and Kotkar (2015) trace the history and development of B2C e-commerce, beginning with the appearance of matrimonial and employment portals in the mid-1990s and progressing to the present day. Nonetheless, expansion has been very slow as a result of limited internet access, insufficient online payment systems, and a general lack of awareness. The advent of online travel and hotel booking services in the mid-2000s offered a significant boost to the Indian B2C e-commerce industry, which has continued to be a significant contributor even now.

Consumers' Pharmaceutical Purchasing Behavior toward Prescription and Non-Prescription Drugs: A Study by Pujari et al. (2016) was published in the journal *Pharmacoeconomics*. Specifically, the investigation was carried out in order to determine the source of information that persons utilise in order to learn about a pharmaceutical product. When it comes to drug choosing, what are the aspects that influence buying behaviour? The survey had 100 responses, and the results were rather interesting. . Only 60% of the population purchased medication on the basis of a physician's recommendation, though other factors such as magazine articles, online literature, family and friends' recommendations all played a role in the decision to purchase a drug in the first place. Individuals, according to the author, want their prescriptions based on their own tastes and price, with little respect for the pharmacist's or physician's advice.

3. Methodology of Research

The study used a quantitative analytic technique to elicit responses to the research questionnaire. A feedback form consisting of 19 questions was produced, verified, and sent to 250 customers (through random sample) by direct interview or via an online platform such as e-mail, Google form, or WhatsApp in order to ascertain consumer preferences and purchasing patterns for e-pharmacy. Random sampling technique is used, Reliability, descriptive, demographic, Factor analysis is incorporated with SPSS and Excel.

Objectives of the study

- 1) To understand the buying pattern of the e-pharmacy customer of Coimbatore during COVID-19.
- 2) To Explore the factor responsible for buying medicine from online E-pharmacy.

Data collection and analysis:

The first section of the questionnaire contains information on the study sample's demographic characteristics. It includes gender, age, educational attainment, marital status, income, employment, and internet use. The second section of the questionnaire is a series of questions designed to ascertain customer preference and purchasing behaviour and factors that influence about e-pharmacy.

Reliability Statistics:

Table 1: Reliability Statistics

Cronbach's Alpha	N of Items
.826	19

The Reliability for thr respondnets for 19 items Alpha= 0.826 >0.7 proves significant consistent and reliable data.

Female	41%	Between 25-35k Per Month	49%
Total	100%	Between 35k-45k Per Month	1%
		Between 45k-55k Per Month	2%
Location		More than 55k Per Month	4%
Coimbatore	100%		100%

Demographic Study:

Table 2: Demographic Analysis

Age	Percent	Educational qualification	Percent
Less than 25 Years	38%	PUC	38%
Between 25-30 Years	44%	Degree/ Graduation	44%
Between 31-35 Years	16%	Post-Graduation	16%
Between 36-40 Years	2%	Diploma	1%
More than 41 Years	8%	Doctorate	8%
Total	100%		100%
Gender		Monthly income	
Male	59%	Less than 25k Per Month	48%

The table 2, provides demographic analysis, Age, Gender, Location, Educational Qualification and Monthly Income, Out of 250 respondents: Maximum respondents are of age group between 25-30yrs around 44%, Maximum are males around 59%, Most of the respondents have graduated with income range between 25k – 35k per month.

Descriptive Statistics:

Table 3: Descriptive Statistics

	N	Mean	Std. Deviation	Skewness	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic
Age	250	1.83	0.804	0.875	0.981
Gender	250	1.41	0.492	0.377	-1.873
Monthly income	250	1.59	0.66	1.348	3.714
Educational qualification	250	1.83	0.796	0.849	0.963
Are you aware of E-Pharmacy	250	1	0	.	.
Have you shopped Medicines via E-Pharmacy	250	1	0	.	.
Offer/ discount is a reason of influencing consumer preference on E-Pharmacy	250	1.39	0.859	2.565	6.454
I recommend my friends, relatives to buy the medicine from e-pharmacy	250	1.59	0.66	1.348	3.714
Frequency of shopping medicine from the online pharmacy	250	1.8	0.844	1.072	1.394
Details drug information is a reason for my preference to Shop Medicine E-Pharmacy	250	1.99	0.992	0.796	-0.172
customer relationship management in online pharmacy is satisfied	250	1.66	0.682	1.458	4.725
Contactless delivery of medicines is a reason of influencing consumer preference for buying medicine from e-pharmacy	250	1.83	0.796	0.849	0.963
Sample ranking towards the privacy of online pharmacy	250	1.66	1.226	1.894	2.338
: Lack of proper billing system in offline pharmacy shops is an influencing factor for buying medicine from online pharmacies	250	1.22	0.619	3.6	15.034
Mode of payment influences me to buy medicine E-pharmacy	250	1.64	0.754	1.667	4.469
Deliver: fast and reliable is the best part of E-pharmacy	250	1.78	0.807	0.967	1.112
I prefer Online than off-line to buy medicine via E-pharmacy	250	1.99	1.012	0.845	-0.066
I'm satisfied with E pharmacy	250	1.67	0.681	1.451	4.731
Valid N (listwise)	250				

Table 3: provides descriptive statistics, mean, N represents No. of respondents, Standard deviation, Skewness and Kurtosis

Factor Analysis:

Table 4: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.669
Bartlett's Test of Sphericity	Approx. Chi-Square	1174.316
	df	55
	Sig.	.000

Table 4: KMO test, Value =0.669 >0.5 proves significant fit for goodness, with df 55, p value =0.00<0.05 proves the significance.

Table 5: Communalities

	Initial	Extraction
Offer/ discount is a reason of influencing consumer preference on E-Pharmacy	1	0.815
I recommend my friends, relatives to buy the medicine from e-pharmacy	1	0.398

Details drug information is a reason for my preference to Shop Medicine E-Pharmacy	1	0.803
customer relationship management in online pharmacy is satisfied	1	0.498
Contactless delivery of medicines is a reason of influencing consumer preference for buying medicine from e-pharmacy	1	0.831
Sample ranking towards the privacy of online pharmacy	1	0.75
Lack of proper billing system in offline pharmacy shops is an influencing factor for buying medicine from online pharmacies	1	0.753
Mode of payment influences me to buy medicine E-pharmacy	1	0.818
Deliver: fast and reliable is the best part of E-pharmacy	1	0.636
I prefer Online than off-line to buy medicine via E-pharmacy	1	0.547
I'm satisfied with E pharmacy	1	0.673
Extraction Method: Principal Component Analysis.		

Table 5: Provides Factor extraction values from the communalities table, Discount/ offer have impact of 81%,

Recommendation influence 39%, Drug Information has 80% impact, Satisfaction= 67%, Contactless Delivery 83%, Billing process 75%, payment 81%, delivery Speed 63%

Table 6: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.968	36.074	36.074	3.968	36.074	36.074
2	1.703	15.486	51.560	1.703	15.486	51.560
3	1.341	12.193	63.753	1.341	12.193	63.753
4	.928	8.440	72.193			
5	.751	6.826	79.019			
6	.622	5.658	84.677			
7	.522	4.743	89.419			
8	.431	3.916	93.335			
9	.340	3.088	96.423			
10	.303	2.758	99.181			
11	.090	.819	100.000			

Extraction Method: Principal Component Analysis.

Table 6 provides, Total Variance of extraction and eigen values of the factors.

4. Discussion

It is critical for a business to understand customer behaviour and purchasing trends for its products. The pharmaceutical market is quite volatile. Because purchasing clothing and medicine are two entirely different things. However, since there are now more businesses on the drugstore market, consumers may pick among them. Our poll found that as a consequence of the advent of COVID-19, online pharmacies are gaining popularity owing to a variety of criteria such as contactless delivery of medications, exclusive offers and discounts, and effective customer relationship management.

5. Limitations

The study's sample size is 250 respondents, which may not be a representative sample of Coimbatore's complete population. ii. The responder may have phrased their responses in accordance with their preferences. iii. Respondents to several of the questions were quite reluctant and may not have provided all of the facts. This may be a significant impediment to doing a research project.

6. Conclusion

E-pharmacy in India is a novel and appealing business model that has the potential to improve the country's healthcare system. After e-pharmacies entered the Indian market, access to medication in every part of the nation has become simpler. Due to the additional benefits of e-pharmacy, such as a discount, effective customer relationship management, and frictionless doorstep delivery, the e-pharmacy business model is gaining popularity with customers. However, there are other risks involved with e-pharmacy, including medication resistance, drug misuse, and unlawful resale of drugs.

References

- [1] Alamelu R, Amudha R, Cresenta S, Nalini R, "Online Pharma Retail Is A Promising/Unpromising Avenue: An Indian Context" AJPCR, 2016; 9 (2): 26-29.
- [2] Anwar W, Gupta T. Factors Leading to Preference for buying Online Medicines and their Effects on Actual buying Behaviour. *Zeichen Journal*.2020; Vol (6): ISSN No: 0932-4747.
- [3] Awaisu A. Hospital pharmacists' self-evaluation of their competence and confidence in conducting pharmacy practice research. *Saudi Pharmaceutical Journal*.2015; 23 (3): 257-265.
- [4] Chordiya S, Garge B. E-pharmacy vs conventional pharmacy. *IJCAAP*.2019; 3 (p): 121-123.2. Srivastava M, Raina M. Consumers' usage and adoption of e-pharmacy in India. *International Journal of Pharmaceutical and Healthcare Marketing*, 2020.
- [5] Chordiya SV, Garge BM, "E-pharmacy vs conventional pharmacy" *IJCAAP*, 2018; 3 (4): 121-123.
- [6] Dadha P. Indian Pharma Set to Target Consumer Online – Health Files, 2015. Available at: <http://www.health.economictimes.indiatimes.com/health-files/indian-pharma-set-to-target-consumer-online/721>.
- [7] David M, "Cybermedicine: the benefits and risks of purchasing drugs over the internet" *JTLP*, 2000; 5 (2): 1.
- [8] Desai C, "Online pharmacies: A boon or bane?" *IJP*, 2016; 48 (6): 615–616.
- [9] Fittler A, Vida RG, Káplár M, Botz L, "Consumers Turning to the Internet Pharmacy Market: Cross-Sectional Study on the Frequency and Attitudes Hungarian Patients Purchasing Medications Online" *J Med Internet Res*, 2018; 20 (8): 11115.
- [10] Gupta MS. Consumer Buying Behavior towards E-Pharmacy. *Dogo Rangsang Research Journal*.2020; Vol (10): ISSN No: 2347-7180.
- [11] Gupta, A. (2014, January). E-Commerce: Role of E-Commerce In Today's Business. *International Journal of Computing and Corporate Research*.
- [12] Jain NK. A Text book of Forensic Pharmacy.7th ed. Delhi: Vallabh Prakashan 2007; 184: 49-54.
- [13] Jain VH, Tadvi SA, Pawar SP, "A review on the pros and cons of online pharmacies" *JAPR*, 2017; 5 (1): 20-26.

- [14] Karnati N, Vishnu P, Kommu V, Sharma Jvc, "Regulations of e-pharmacy in India" WJPR, 2019; 8: 421-430.
- [15] Liu S, Luo P, Tang M, Hu Q, Polidoro JP, Sun S et al. "Providing pharmacy services during the coronavirus pandemic" Int J Clin Pharm, 2020; 42 (2): 299-304.
- [16] Mackey TK, Liang BA, "Pharmaceutical digital marketing and governance: illicit actors and challenges to global patient safety and public health" Globalization and Health, 2010; 9: 45.
- [17] Mohammad Mahmoudi Maymand,-E-Commerce.5. Murthy C. S. V.,-E-Commerce – Concepts, Models and Strategies.
- [18] Mohd A, Mustfa M, "Consumer buying behavior of retail pharmacy industry with special references to Delhi and NCR" IJMSEM, 2017; 2 (4): 1-17.
- [19] Nair SP, Middha A, "Ideas and Innovations in Technology" IJAR, 2019; 5 (1): 1-4.
- [20] Numberger, S., & Renhank, C. (2005). The Future of B2C E-Commerce. Electronic Markets, 269-282.3. Jaiswal S.,-E-Commerce.
- [21] Prashanti G, Sravan S, Noorie S, "A Review on Online Pharmacy" IOSR-IPBS, 2017; 12 (3): 32-34.
- [22] Priyanka V, Ashok B. E-pharmacies regulation in India: Bringing new dimensions to the pharma sector. Pharmaceutical Regulatory Affairs.2016; 5 (175): 1-7.
- [23] Pujari NM. Study of consumer's pharmaceutical buying behavior towards prescription and non-prescription drugs. Journal of medical and health research.2016; 1 (3): 10-18. Dutta et al.209
- [24] Purva S, Ashwini D, "Vigilance for Sale of Drugs through Online Pharmacies" Adv Case Stud, AICS, 2018; 1 (3): 000511.