

## THE ROLE OF DEMOGRAPHIC FACTORS ON PURCHASE OF MEDICINES FROM ONLINE PHARMACY: A STUDY

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### ABSTRACT

*Online pharmacy is a platform where a vendor sells medicines through an online portal. India occupies an enviable position in the field of Pharmacy. The country has an outstanding track record of exponential development, especially during the last two years. The pandemic shocked developed and developing countries in equal measure. As the world responded to this rude shock in different ways, there were paradigm shifts in buying medicines. Online Pharmacy became a new normal in India. A business line that was in its infancy in the country, became a multi-million trade. The past two years have seen a discernible shift in the way people acquire medicines online. This research is conducted to study the impact of demographic characteristics on online medicine purchases. It aims to gain a better understanding of the motivation that drives the online purchase of prescribed medications. It tries to focus on Indian consumers and comprehension of Internet pharmacies. The paper dwells on emerging perspectives in Online Pharmacies.*

**Keywords:** *Online Pharmacy, Demographic Factors, Age, Income, Medicine Purchase.*

### Introduction

India is adapting to e-commerce rapidly. With increased internet penetration, India is quickly adjusting to e-commerce, and digitalization has improved nearly every industry. Beginning in the late 1990s, a number of Internet-only health firms sprung up on the internet, and many traditional health organizations began to migrate part of their services to the internet. Since then, the competition has escalated, and price and non-price competitive advantages, such as outstanding customer service and the quality of online information systems, are now required for success in this business.

In terms of sales volume, India is third in the world. There has been a significant increase in the number of people doing business online. International boundaries are blurring as a result of globalization, and buyers are increasingly shopping online. Consumer durables, clothing, and accessories have seen a revolution in modern trade, but online medicine has seen a boom, particularly in metro cities. In the backdrop of Covid-19, there has been a rise in internet pharmacy from March 2020.

Online portals create internet-based pharmacies that make it easy to buy a wide range of drugs, including OTC medications, complementary medicines, medical devices, branded and generic prescription-based medicines. India has seen its evolution and subsequent development. The sector is no longer in its introduction stage, it is excellently positioned for gradual development.

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The traditional method of purchasing medications from pharmacies is still robust. Consumers have to consult with a medical practitioner and present prescriptions to purchase medicines. However, the introduction of online pharmacy hooked many consumers to the new system. This sharp increase can be assigned to multiple reasons, but one of the most significant is the shift in lifestyle and the widespread use of cellphones. The pharmaceutical industry in India is now focusing on online buyers. The business growth of many companies has come due to the creation of an online model.

In India, Online Pharmacy companies are currently pursuing a web-based business path to address a variety of difficulties plaguing the retail drugstore industry. Customers may expect home delivery, simple access, and reminders from online pharmacies, as well as cost-effective deals. Companies compulsorily ask the customer to submit the prescription to prevent major health risks. Although online medications appear to be a promising trend today, the industry is plagued by administrative problems. It is well known that the rules of online pharmacy are not so well defined.

The current government has taken several steps to improve the structure of online pharmacies. As a result, new initiatives have been launched. Their implementation, as well as the subsidies provided to the pharmaceutical industry, has given India a boost in terms of growth and development. One conservative estimate is that Online Pharmacy comprises 1 percent of total Pharmacy sales.

The Department of Pharmaceuticals in association with the Central Pharmaceutical Public Sector Undertaking has been instrumental in the launch of the Jan Aushadhi Scheme. The scheme aims to make medicines accessible and affordable to the masses (FICCI, 2016).

### **Literature Review**

Technology has ushered a sea change in the life and lifestyle of people across continents. Modern consumers have become information-based shoppers (Ante, 2009). Online pharmacies became popular first in the late 1990s. The e-commerce market in India of online medicines is growing significantly (Sah, R K., 2018). Many experts believe that a major reason behind e-buying is convenience (Oppenheim and Ward, 2006). The surge of online pharmacies has presented great opportunities in the Asia-Pacific market. The emergence of NetMeds, 1mg, Pharmeasy, MedLife has revolutionized the online medicine market. It is observed that the growth of e-commerce and the retail industry goes hand in hand (FICCI, 2016). Department of Pharmaceuticals (under the Digital India program) has incorporated E-Governance to deliver information and services over the internet. It is imperative to make medicines easily available at affordable prices (Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers, 2017). Online pharmacies could be legitimate (verified) or non-legitimate (non-verified) (Prashanti, Sravani and Noorie, 2017). To insulate themselves, few online pharmacies ask for a valid prescription. However, some do not mandate the criterion (Chaturvedi, Singh and Kumar, 2011). Many doctors argue that the authenticity of medicines is questionable not only at online pharmacies but also at medical shops. The adoption of e-prescriptions can help eradicate errors of illegibility (FICCI, 2016).

An understanding of drivers of growth and promotion of online pharmacies in India is important at this time in the Indian Pharmaceutical space. The formation of IIPA (Indian Internet Pharmacy Association), changing disease patterns and growing population of the country, changing lifestyles, initiatives taken by the Government, rise in the level of education in the country, rising health insurance in the country (Basu and Shenbagaraman, 2016), price, convenience, relative privacy, which may encourage patients to ask questions about embarrassing issues, affordable prices, access to drugs for the disabled or housebound (Prashanti, Sravani and Noorie, 2017), time-saving, offers discounts, perks, overnight shipping (Chaturvedi, Singh and Kumar, 2011) and easy access (FICCI 2016) are few vital factors affecting online pharmacy in India.

### **Research Gap**

Information on the online buying of medicines is nascent in the Indian context. Factors and trends related to the online buying of medicines have not been fully explored. This research will help to understand the impact of demographic factors on consumer buying behavior in the online purchase of medicines.

### **Hypotheses**

A hypothesis was framed to find whether the online buying behavior of customers is dependent on demographic factors.

**H<sub>0</sub>:** There is no significant impact of demographic factors on online medicine purchase.

**H<sub>1</sub>:** There is a significant impact of demographic factors on online medicine purchase.

### Research Methodology

An exploratory descriptive research design was used in this study. The majority of the data in the study comes from primary sources, although secondary material is also acquired for the purposes of conducting a literature review and laying a solid theoretical foundation for the research. The core data for this study was gathered through the technique of personal interviewing, with a total sample size of 150 people taken into consideration. A number of statistical tests were conducted. The SPSS statistical package was used for hypothesis testing.

### Results

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	57	38.0	38.0	38.0
	Female	93	62.0	62.0	100.0
	Total	150	100.0	100.0	

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 - 25	65	43.3	43.3	43.3
	25- 40	37	24.7	24.7	68.0
	40 - 60	28	18.7	18.7	86.7
	60 and above	20	13.3	13.3	100.0
	Total	150	100.0	100.0	

Income					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 15,000 per month	92	61.3	61.3	61.3
	15,000 – 40,000 per month	37	24.7	24.7	86.0
	40,000 – 75,000 per month	10	6.7	6.7	92.7
	More than 75,000 per month	11	7.3	7.3	100.0
	Total	150	100.0	100.0	

Which online pharmacy brand do you prefer most					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 MG	61	40.7	40.7	40.7
	Netmeds	39	26.0	26.0	66.7
	PharmEasy	25	16.7	16.7	83.3
	Apollo Pharmacy	21	14.0	14.0	97.3
	Any other	4	2.7	2.7	100.0
	Total	150	100.0	100.0	

Do you regularly buy medicines online					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	58	38.7	38.7	38.7
	No	92	61.3	61.3	100.0
	Total	150	100.0	100.0	

Do you consider online pharmacy safe					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	78	52.0	52.0	52.0
	No	48	32.0	32.0	84.0
	Can't Say	24	16.0	16.0	100.0
	Total	150	100.0	100.0	

**Regression Model**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.656 <sup>a</sup>	.430	.389	.7726102

a. Predictors: (Constant), Customer support, Refill reminders, Privacy, Convenience, Discount/Offers, Authenticity, Door step delivery, Low price, Availability of substitute medicines, Doctors'/ Pharmacist consultation

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	62.686	10	6.269	10.501	.000 <sup>b</sup>
	Residual	82.973	139	.597		
	Total	145.659	149			

a. Dependent Variable: Total  
 b. Predictors: (Constant), Customer support, Refill reminders, Privacy, Convenience, Discount/Offers, Authenticity, Door step delivery, Low price, Availability of substitute medicines, Doctors'/ Pharmacist consultation

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-4.642	.746		-6.219	.000
	Door step delivery	.528	.121	.319	4.362	.000
	Convenience	.225	.104	.151	2.157	.033
	Availability of substitute medicines	.008	.095	.006	.080	.936
	Discount/Offers	-.301	.105	-.214	-2.877	.005
	Authenticity	.086	.082	.077	1.044	.298
	Low price	-.138	.096	-.110	-1.435	.154
	Privacy	.556	.112	.406	4.979	.000
	Refill reminders	.054	.073	.051	.735	.463
	Doctors'/ Pharmacist consultation	-.063	.074	-.069	-.851	.396
Customer support	.107	.072	.117	1.489	.139	

a. Dependent Variable: Total

**Conclusion**

- Out of all 150 respondents, majority numbers are females i.e. 93 (63%) and males are 57 (38%)
- The highest number 65 (43.3%) of respondents are between the age group of 18 to 25 followed by 37 (24.7% respondents having age in-between 25 to 40. There are 28 (18.7%) respondents have age between 40 to 60 and 20 (13.3%) respondents are above 60 years of age.
- The income of 92 (61.3%) respondents is less than Rs. 15,000 per month. 37 (24.7%) respondents having income range between Rs, 15,000 to 40,000 per month. 10 (6.7%) respondents having income range between Rs, 40,000 to 75,000 per month. 11 (7.3%) respondents having income more than Rs, 75,000 per month
- 1 MG is the most popular brand amongst all, 61 (40.7%) respondents know and prefer 1 MG brand. 39 (26%) respondents prefer NetMed. 25 (16.7%) respondents prefer PharmEasy. 21 (14%) respondents prefer Apollo Pharmacy.
- 92 (61.3%) of respondents don't buy medicines regularly from online pharmacy. 58(38.7%) buy medicines online regularly.
- 78 (52%) of respondents consider online pharmacy is safe while 48 (32%) of respondents don't consider it safe.
- R square is 0 .430, it explains 43% of the variance .Regression model is significant P- value (Anova) less than 0.05 which is highly significant. P-values of Door step delivery(0.000), Convenience(0.003), Discount/Offers (0.005), privacy (0.00) are significant. So we reject null hypothesis that there is no significant impact of demographic factors on online medicine purchase and we can say that there is a significant impact of demographic factors on online medicine purchase.
- It can be concluded that online purchase of medicine is significantly related to demographic factors of customers.

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