

The Analysis Of Factors Influencing E-Buying Behaviour Of Consumer Towards Online Pharmacies With Special Reference To Pune City In Maharashtra, India

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Abstract

The manner that regular people fulfil their daily requirements has been transformed by the internet. E-commerce serves as a platform so that customers can visit online retailers whenever it's convenient for them. People may pay their bills, obtain a variety of goods from a wide selection of possibilities, manage their investments, and find information on a wide range of topics online in this rapidly expanding area of e-business. It would not be hard to believe that the healthcare sector will take advantage of this chance to establish a standard platform for online drug purchases. It is thus not unexpected that the healthcare sector has incorporated itself into this innovation. When it comes to providing privacy for the effective and worry-free treatments of anxiety and depression, many online pharmacies deliver medications to the doorstep, providing a service that is frequently lacking in a regular pharmacy. People can obtain prescribed medication and other pharmaceutical supplies online from the comfort of their homes thanks to e-pharmacy. Consumer preferences and purchasing behaviours vary by geography. The goal of this study is to better understand consumer perceptions of internet pharmacies. The responses to a survey (N=244) are used to assess the study's validity. The legal framework is comparable even though e-pharmacies are significant to the Indian economy and healthcare system. According to the survey, the epidemic has enhanced the use of online pharmacies in Pune.

Keywords: consumer behaviour, e-buying behaviour, online, pharmacy, medicines

Introduction:

Online purchases of a variety of tangible and intangible goods have been encouraged by the quick rise in high-speed online activity at low cost leveraging readily available portable devices (anytime, anywhere, for any length of time). Although an optimised business strategy would involve customers buying intangible goods online with mobile devices, there are limitations when it comes to doing the same with real goods. Transportation times and product quality consistency are the main restrictions. However, compared to limitations and drawbacks, online commodity purchases have more significant benefits.

Due to the larger choice, improved discounts, freebies and cash on delivery, and promised return kind of qualities in the current online model, online purchases are becoming more and more popular these days, for example, many

commodities like electronic products, books, domestic commodities, etc. This led to a significant shift in the way people perceived the online commodity purchasing model and increased the rate at which key customers used it, regardless of gender, age, educational qualifications, or geography. More merchants have launched or switched to an online business strategy in response to the increased popularity of online retailing in an effort to take advantage of the potential in this industry.

The study of consumer behaviour helps focus on how individuals, organizations, or partnerships choose, acquire, employ, and discard concepts, goods, and services to satisfy their needs and desires. Both consumers and marketers come in a variety. Everyone reveals their appearance in their behaviour, which is a reflection. Consumer buying behaviour examines how perceptions, sentiments, and preferences affect what consumers choose to buy. People's desires and consumption are influenced by traits including demographics, personal characteristics, lifestyles, and behavioural factors like usage frequency and brand loyalty. A sizeable portion of Indians does not purchase medications online, either because they are unaware of the concept of online pharmacies or because they do not meet the minimum prerequisites, such as having access to the internet. Whatever perspective you take, the current state of affairs is changing.

The Indian healthcare sector is rapidly expanding quickly, and there are several online and offline pharmacies operating there. Confidentiality, a wide selection, affordable prices, home delivery, and convenience are the main advantages of utilizing an online pharmacy, amongst many others. Without a question, online pharmacies make it simpler and easier for customers to get medications. Several current top online pharmacy providers are 1mg, PharmEasy, NedMeds, Apollo Pharmacy, mChemist and Medlife. This trend is being fuelled by rising computer proficiency, widespread mobile phone usage, and internet connectivity. The pharmaceutical sector is moving away from traditional marketing tactics in favour of online ones because of the simplicity of client involvement, economic viability, and time savings (Jawaid & Ahmed, 2018).

Literature Review:

Online pharmacy usage in Pune is still quite restricted due to important communications infrastructure factors which would include inadequate broadband and expensive internet connection. Nevertheless, using an internet pharmacy gives people access to affordable, more unique services. Online pharmacies strive to offer services that help patients stick to their medication regimens. Customers can use refill affirmations, which send them emails to assure them when it's time to replenish their medicines. Furthermore, it is anticipated that the dangers posed by fake medications would have a significant negative impact on industry expansion overall. In the upcoming years, scientific innovations including computerized prescription processes and bar-coding medicine verification are anticipated to propel the worldwide online pharmacy industry.

Despite the global disposition and comparative legality of the Online platform, it has created a profitable market for the sale of medications. However, given that numerous studies indicate that many of the products sold in online stores include low-quality components, this trend may present substantial safety issues for societal structure. (Nguyen et al., 2019).

The convenience of internet buying over in-store channels is often seen as one of its most important benefits. (Seneviratne and colleagues 2019).

Extended hours of operation, a larger number of suppliers, and other factors could be categorised as conveniences. However, studies also revealed that people's perceptions of the risks associated with online shopping were generally present (D'Alessandro, Girardi, & Tiangsoongnern, 2012). These risks included the need to disclose user's data as well as the potential for not receiving the right product as ordered. According to measures that have had a detrimental influence on the nation's extensive social constraints, especially transportation limitations, pharmacies' median wealth declined by less than 50% in the mid 2020 compared to the previous period in 2019. (Roy M. J. and et al.). However, it is anticipated that companies in the healthcare market will start focusing on online retailing rather than just investing in brick-and-mortar locations (Ken Research, 2021).

Scholars Srivastava et al., (2020) conducted a study on how Indian consumers use and utilise e-pharmacies. It is crucial to demonstrate the use and advantages of e-pharmacies as well as to provide clients with further information because a large portion of the wider population does not comprehend how to utilize an online pharmacy and the advantages of using it. Individuals frequently exhibit pleasure with "home delivery" of medicines obtained online, but several say participants would rather buy drugs online with in case of a sudden ailment. The results suggest that the online application ought to be simple to use. People would feel distrusted if

there was data available that was out-of-date and unclear. (Bukhari et al, 2020).

The study conducted by Anwar et al (2020) looked into the essential variables that affect people's preferences for buying medications online and how they really behave while making purchases: It will be required to investigate the many factors that have led the broader individuals to accept online pharmacy for the purposes of this study. Effectiveness of the cost, convenience, ease of access to medicines that aren't frequently prescribed, and anonymity are a few of the most crucial factors.

A study performed by Pujari et al. in 2016, to ascertain the information source that people use to learn about a pharmaceutical product. Female customers typically perceive higher amounts of risk while ordering online. Women, in particular, are more concerned about the seriousness of the privacy loss repercussions associated with online buying than men are. (Melewar et al., 2013). Consumers must have faith in the content provided by e-vendors and assume that they might operate ethically and in accordance with social norms; otherwise, they may be hesitant to interact online given the enormous complexity involved.

Research Methodology:

The primary data collected from respondents across Pune city using questionnaire through a survey method. Google forms and questionnaire were used to obtain responses. Secondary data collected from website and other sources such as magazines, newspapers etc. There were around 257 respondents given responses. Out of which 244 responses selected for the study due to sampling errors and insignificant data.

Data Analysis and Interpretation of data:

The total sample size was 244. The following table depicts the demographic analysis.

Table No. 1Frequency Table: Demographic Analysis

Gender					
Factors		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	133	54.4	54.4	54.4
	Male	111	45.6	45.6	100
	Total	244	100	100	
Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 to 25	145	59.5	59.5	59.5
	26 to 35	43	17.7	17.7	77.2
	36-50	46	19	19	96.2
	51 and above	9	3.8	3.8	100
	Total	244	100	100	
Qualifications					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Doctorate	19	7.6	7.6	7.6
	Graduate	102	41.8	41.8	49.4

	Post Graduate	83	34.2	34.2	83.5
	Self Employed or Business	3	1.3	1.3	84.8
	SSC or HSC	37	15.2	15.2	100
	Total	244	100	100	

Table No. 1 describes the Demographic profile of the sample respondents which constitutes about 244 respondents in the research study. Out of which, there were 54.4 percent female and 45.6 percent male respondents. There was 59.5 percent of respondents in the age group of 18 to 25 and 41.7 percent of respondents were graduates.

Scale: ALL VARIABLES

Table No.4 Reliability Statistics for factors influencing the e-buying of medicines.

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.928	0.928	8

Table No.5 Descriptive statistics, mean, N represents No. of respondents, Standard deviation, Skewness, and Kurtosis for factors influencing the e-buying of medicines.

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Descriptive Statistics						
Factors	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Discount or offers	3.14	1.5	-0.103	0.271	-1.468	0.535
Low Price	3.04	1.363	-0.008	0.271	-1.289	0.535
Convenience	3.14	1.439	-0.197	0.271	-1.332	0.535
Door step Delivery	3.35	1.485	-0.419	0.271	-1.289	0.535

Availability of substitute medicines	2.97	1.33	0.081	0.271	-1.176	0.535
Refill reminders	2.87	1.324	0.068	0.271	-1.177	0.535
Doctor Pharmacist consultation	2.8	1.445	0.181	0.271	-1.353	0.535
Customer support	2.9	1.42	0.156	0.271	-1.298	0.535
Valid N (listwise)						

Table No. 5 depicts that the extracted value are lies in the ranges i.e., for skewness symmetric values are between -0.5 to 0.5 and for kurtosis, the values are between +3 to -3. Hence the researchers can conclude that the factors influencing the e-buying of medicines are having a significant impact on consumers while placing orders online and getting them fulfilled through online pharmacies.

Table no.6 Item statistics for factors influencing the e-buying of medicines

Factors	Cronbach's Alpha if Item Deleted
Discount or offers	.920
Low Price	.922
Convenience	.914
Door step Delivery	.912
Availability of substitute medicines	.922
Refill reminders	.918
Doctor Pharmacist consultation	.918
Customer support	.918

Table no. 6 Shows that the Cronbach's Alpha if Item Deleted are also more than 0.07, hence it also makes a significance difference for supporting the factors. Here, it is concluded that the customer's buying behaviour towards the online pharmacy is having the significant impact by factors influencing the e-buying of medicines.

Factor analysis:

Table No. 7 Communalities for factors influencing the e-buying of medicines.

Communalities		
Factors	Initial	Extraction
Discount or offers	.701	.787
Low Price	.630	.650
Convenience	.771	.788
Doorstep Delivery	.792	.802
Availability of substitute medicines	.640	.662
Refill reminders	.703	.763
Doctor Pharmacist consultation	.719	.762
Customer support	.689	.682

Extraction Method: Principal Axis Factoring.

Table no. 7 shows that doorstepdelivery (0.792), convenience (0.771) and, Doctor Pharmacist consultation (0.719) factors are having an influence while e-buying of medicines. The doorstep delivery (0.802) also had the maximum extraction value too. This indicates that, consumers are buying the medicines because they are getting medicines on their doorstep easily.

Table No. 8 Variance values for factors influencing the e-buying of medicines.

Total Variance Explained							
Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	5.318	66.471	66.471	5.059	63.242	63.242	4.413
2	1.104	13.799	80.270	.838	10.479	73.721	4.406
3	.486	6.081	86.351				
4	.333	4.162	90.513				
5	.230	2.878	93.391				
6	.209	2.608	95.999				
7	.187	2.342	98.341				
8	.133	1.659	100.000				

Extraction Method: Principal Axis Factoring.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Table no. 8 indicates that the initial Eigenvalues and variance values of 66.47percent for factor 1 and 13.80 percent for factor 2 have the highest weightage. That depicts that discount or offers and low prices are the main influencing factors for e-buying medicines.

Table No. 9 Factor matrix for factors influencing the e-buying of medicines.

Factor Matrix^a		
Factors	Factor	
	1	2
Doorstep Delivery	.865	-.233
Convenience	.840	-.286
Doctor Pharmacist consultation	.801	.349
Refill reminders	.799	.353
Discount or offers	.787	-.409
Customer support	.784	.261
Availability of substitute medicines	.745	.328
Low Price	.733	-.336

Extraction Method: Principal Axis Factoring.

a. **2 factors extracted. 8 iterations required.**

The table no. 9 depicts in factor matrix after 2 factors extracted, the initial analysis indicates that. the doorstep delivery and convenience are the main influencing factors to buy medicines through online pharmacies.

Fig. No. 1 Scree plot for factors influencing the e-buying of medicines.

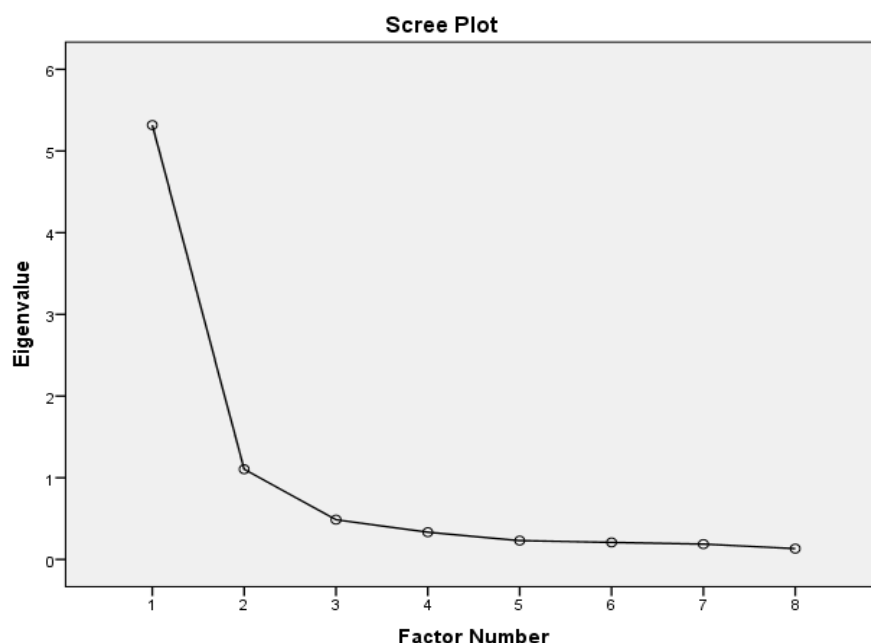


Table No. 10 Pattern matrix for factors influencing the e-buying of medicines.

Pattern Matrix ^a		
Factors	Factor	
	1	2
Refill reminders	.885	.017
Doctor Pharmacist consultation	.880	.010
Availability of substitute medicines	.823	.014
Customer support	.760	-.092
Discount or offers	-.091	-.948
Low Price	-.029	-.826
Convenience	.094	-.820
Doorstep Delivery	.175	-.766

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 8 iterations.

Table no.10 also enlists the factors influencing the e-buying medicines which highlight the parameters such as refill reminders (0.885), Doctor Pharmacist consultation (0.880), and Availability of substitute medicines (0.823) also make an impact on the e-buying of medicines. Table no.11 below also represents the refill reminders, doctor-pharmacist consultations, and customer support from online pharmacies play an important role when buying the medicines.

Table no. 11 Structure matrix for factors influencing the e-buying of medicines.

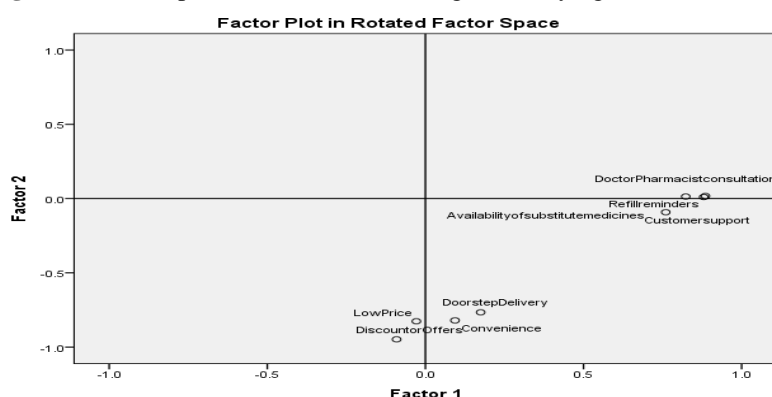
Structure Matrix		
Factors	Factor	
	1	2
Refill reminders	.873	-.595
Doctor Pharmacist consultation	.873	-.599
Customer support	.823	-.617

Availability of substitute medicines	.814	-.556
Door step Delivery	.705	-.887
Convenience	.661	-.885
Discount or offers	.565	-.885
Low Price	.543	-.806

Extraction Method: Principal Axis Factoring.

Rotation Method: Oblimin with Kaiser Normalization.

Fig. No. 2 Factor plot for factors influencing the e-buying of medicines.



The factor plot in the rotated factor space indicates that low prices, discounts or offers, doorstep delivery, convenience and, refill reminders, availability of substitute medicines and customer support are the key factors influencing the e-buying of medicines through online pharmacies.

Table no.12 Reliability Statistics for challenges during the e-buying of medicines

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.894	0.895	6

The table no. Shows that the values of Cronbach's Alpha Based on Standardized Items are more than 0.07, hence, the factors such as challenges during the e-buying of medicines having significant impact on customer's purchasing pattern.

Table no. 13 Descriptive statistics for challenges during e-buying of medicines through online pharmacy

Factors	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Authenticity	2.76	1.19	0.389	0.271	-0.603	0.535

Outdated medicines	2.49	1.208	0.575	0.271	-0.607	0.535
Lack of detailed information	2.44	1.217	0.618	0.271	-0.404	0.535
Payment terms	3.05	1.377	0.088	0.271	-1.182	0.535
Chance of ordering or getting the wrong medicines	2.57	1.278	0.257	0.271	-1.146	0.535
Availability of particular brand of medicines specially prescribed by doctors	2.71	1.332	0.389	0.271	-1.008	0.535

Table No. 13 depicts that the extracted value are lies in the ranges i.e., for skewness symmetric values are between the -0.5 to 0.5 and for kurtosis the values are between the +3 to -3. Hence the researchers can conclude the challenges during e-buying of medicines through online pharmacy are having significant impact through online pharmacies.

Factor analysis:

Table no. 14 Communalitiesfor challenges during e-buying of medicines through online pharmacy

Factors	Initial	Extraction
Authenticity	.638	.618
Outdated medicines	.473	.506
Lack of detailed information	.562	.591
Payment terms	.537	.505
Chance of ordering or getting wrong medicines	.689	.723
Availability of particular brand of medicines specially prescribed by doctors	.638	.596

Extraction Method: Principal Axis Factoring.

Table no. 14 indicated that the chance of ordering or getting the wrong medicines (0.689), authenticity (0.638), and availability of the particular brand of medicines specially prescribed by doctors (0.638) are the key challenges while e-buying of medicines through an online pharmacy.

Table no. 15 Total Variance Explainedfor challenges during e-buying of medicines through online pharmacy

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.942	65.697	65.697	3.539	58.990	58.990
2	.665	11.078	76.775			
3	.502	8.370	85.145			
4	.431	7.177	92.322			
5	.275	4.579	96.900			
6	.186	3.100	100.000			

Extraction Method: Principal Axis Factoring.

Factor Matrix^a

Factors	Factor
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	1
Chance of ordering or getting the wrong medicines	.850
Authenticity	.786
Availability of particular brand of medicines specially prescribed by doctors	.772
Lack of detailed information	.769
Outdated medicines	.711
Payment terms	.711

Extraction Method: Principal Axis Factoring.

a. 1 factors extracted. 5 iterations required.

The factor analysis indicates that the only challenge the customers are facing is chance of ordering or getting the wrong medicines. Other challenges include authenticity and availability of the particular brand of medicines specially prescribed by doctors while e-buying of medicines through an online pharmacy.

Online pharmacies must be obliged to register their enterprise and post all required information inside a centralized, governed data repository to further severely monitor the sale of drugs online. Following that, consumers can utilise this verification system and report safety issues or irregularities. It is also necessary to increase public knowledge of the necessity to confirm the security of medicinal items purchased online.

Future research should definitely emphasise the negative impacts that result from online drug purchases, it is strongly advised. Accordingly, there are several ways to assess the risk to the health in primary care. To inform the public about the security of online pharmacies, improved healthcare professional skills, engagement, and advertising efforts are needed. Focused pharmacy initiatives are essential as preventive tactics, and they should be emphasized in daily practice.

Conclusion:

The findings of the current study may help to clarify the dangers connected to purchasing medications online, and it makes an effort to persuade customers to choose products with greater care and discernment in order to prevent additional problems. There were 244 participants in the process of data collection, which involved an online survey. Utilizing statistical tools, the effects of the relevant factors were analysed quantitatively (SPSS). The outputs of the data analysis yielded the following results. It is also important to mention that this research will positively affect retailers' internet marketing, which will eventually benefit customers. In addition, online retailers need to develop significant levels of client commitment in order to allay individuals' worries about ordering prescription drugs online. For illustration, ensuring adequate shipping, moderate and authorised products, pertinent accreditations from the competent authorities, getting in contact with consumers throughout the transaction, and delivering expert advice both before and after the sale of prescription medicines could enhance customers' faith and confidence within those websites.

An innovative and alluring commercial strategy has the potential to enhance India's healthcare system includes online pharmacy. Access to medicines has become easier across the country since online pharmacies started operating in India. Consumers are gradually favouring the online pharmacy business model because of its extra advantages, including a discount, efficient customer services, and seamless doorstep delivery. Furthermore, there are several other concerns associated with online pharmacies, such as drug abuse, drug resistance, and illegal drug reselling.

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