Analysis of Competitive forces on the Performance of Indian Retail Pharmacy: With special reference to Online Pharmacy as a New Entrant

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Abstract

India is moving on to be the world's third largest destination for Retail. No sector is now being aloof and are sharing its presence on online platform to reach the customer at their door step. E-Commerce and online purchasing have intruded its roots at all levels. In the present era of digital India and presence of more than 60 percent of population on digital platforms has now motivated customers to purchase everything online and medicines are no longer away from this business model. The retail pharmacy is anticipated to expand at a 12.02% annual rate in the future years. On the basis of their operations entire sector has been classified into three categories mainly organized, unorganized and online retail pharmacy. The main objective of the study is to identify the factors affecting the performance of Indian Retail pharmacy and the factors affecting online pharmacy. An assessment of Indian's knowledge, attitudes, and behaviours towards internet pharmacies is done in a country where traditional drugstores monopolize the marketplace in a number of distinct sectors. The study aims to explain the existing factors, find out new factors motivating the customer for adoption, frequency of usage and likeliness of the consumers to go online and purchase the medicines. Data collected from around 300 respondents is used to analyse the buying behaviour. Emerging technology, change in stakeholder's relationship pattern, level of information, popularity of alternate medications among the patients, increasing retail counters are considered as the forces impacting. The statistical analysis in the study gives an insight about the most dominating factors that need to be addressed for the study. Results have identified the most dominating factors required through factor analysis.

Keywords: Competitive forces, Indian retail pharmacy, online pharmacy, new entrant

Introduction

Retail pharmacy is a system mainly dealing in the dispensing of medicines to the end customer. The pharmacy retailer selling different products viz., prescribed drugs, Over-the-counter drugs, some healthcare FMCG and medical devices. In the entire supply chain, retail is the last component of the downstream. Retail plays a very important role in value chain, as it is a direct point of contact to the end customer[1]. However, pharmacy is still more into the push marketing system because patients or end customer are totally unaware about the clinical effects of drugs, and usually purchase drugs prescribed by the doctors. The retailer can enjoy advantages of the pull strategy [2] in case of Over-the-counter drugs, FMCG and medical devices.

Based on distribution channels and supply chain practices, the Indian retail pharmacy is classified as–

Organised Retail Pharmacy model, adopt chain retailing with Omni-channel distribution model, and these are branded retailers keeping complete range of medicines, FMCG and domestic medical equipment. The chains of these brands are disseminated across the country.
Unorganized retail pharmacy, is the conventional stand-alone brick mortar shop, which performs direct transaction with the customer.
Online Retail Pharmacy, is completely based on e-commerce model of retailing, i.e., e-tailing

As per the market insight propended by the "Marketandresearch" in its report, in 2020 the retail pharmacy industry was worth INR 1,783.83 billion and by 2026 is expected to grow at a CAGR of 12.02% to reach INR 3,078.46 billion. By 2026, the organized retail pharmacy business, which was worth INR 134.21 billion in 2017, is expected to grow to INR 370.39 billion. In 2020, the unorganized sector had a value of INR 1548.55 billion, and by 2026, it is expected to grow to INR 2390.20 billion[3]. The online retail industry generated INR 38.15 billion in sales in 2020, and is projected to generate INR 317.87 billion by 2026. Due to the increase in internet users and technological improvements, the online retail channels sector is expanding at the fastest rate. It had a value of 38.15 billion in 2020 and is anticipated to grow at a CAGR of 44.44% to reach 317.87 billion in 2026.[3,4] **Figure 1** represents comparative CAGR in all the three retail system differentiated on the basis of distribution channels.
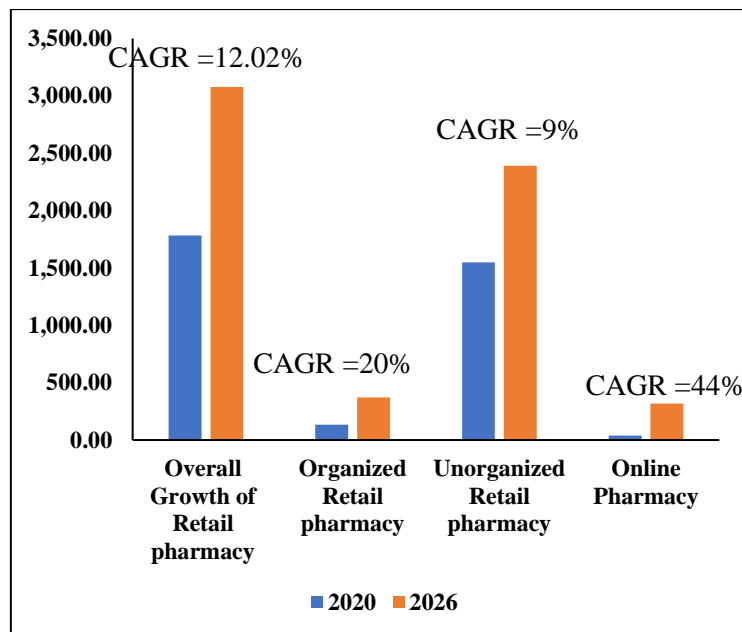
Figure 1: Comparison of Compound Annual Growth Rate of different pharmacy retailing

The comparison of CAGR depicted in **Figure 1** indicates that unorganized retail pharmacy sector is at an alarming stage, and is required to revamp the supply chain practices in order to compete with the upcoming threats. Prior to the transformation in supply chain model, the primary stage is to analyse the competitive forces. In line with the Porter's five force, retail pharmacies are facing all the five forces viz., competitive rivalry, and threat of new entrants, threat of substituents, buyer's bargaining power, and supplier's bargaining power. The components of each force have been depicted in **Figure 2**. Due to the advent of organized pharmacies and online pharmacies, these competitive forces get enhanced at a significant level. By proper understanding of elements responsible for each force, unorganized retail pharmacies can develop an efficient supply chain design to cope up with these forces up to a larger extent.

The present study seeks to analyse one of the five competitive forces i.e., threat of new entrant to unorganized pharmacies which is due to rapidly spreading online pharmacy. Following are the research questions addresses in the present study, to analyse threat of new entrants to the unorganized pharmacy due to online pharmacy.

Figure 2: Porter's Five competitive forces for unorganized retail pharmacy

a. What are the factors representing threat of new entrant to unorganized pharmacy from online pharmacy?
b. Which factor plays predominating role and need to be control to reduce threat of new entrant for the survival of unorganized retail pharmacy?

Review of Literature

Dibakar Bose et-al performed a survey and published it by the title "E-pharmacy and unorganized pharmacies are compared in West Bengal. The study found that 95.63% of respondents were open to buying drugs online in the future.[5]

The rapid capture of market by e-pharmacies has been reported by "National investment promotion and facilitation agency; according to their survey; Indian e-Pharmacies, which first appeared around 2015, have quickly acquired popularity and disrupted the market. There are already close to 50 e-pharmacies in India, and estimates place the market's value (as of 2019) at $ 0.5B, or about 2-3% of all pharmacy sales in India. By 2025, the market is projected to have grown at a compounded pace of 44% to reach $ 4.5 billion.[6]

A survey that offers a thorough overview of the Indian pharmacy retail market was published by businesswire.com. The study includes an overview, market segmentations, trends and developments, issues and challenges, SWOT analysis, competitive landscape, and government regulations. It also provides a snapshot of the India online pharmacy retail industry.[7]

As published by Statista[8] "The Market share of retail pharmaceutical business in India was estimated to be worth about 25 billion dollars in fiscal year 2017, and it is expected to increase to 59 billion dollars by fiscal year 2023. India boasts a vast network of pharmacies, with more than 800,000 pharmacies located nationwide. This extensive distribution network plays a crucial role in providing access to medications and healthcare products to a large population. Over 85% of all pharmaceutical sales are made through offline pharmacies, which also sell a range of FMCG items and over-the-counter and prescription medications.

Malika S(2020)[9] in their research on consumer's usage and adoption of E-Pharmacy in India, findings proposed that gender and educational background had no correlation for purchasing medicines in online mode. Performance effort, expectancy, social influence had a positive correlation with E-Pharmacy. The study emphasizes the tremendous increase of digital presence of consumers to motivate them to purchase medicines online as well.

Avinash et.al. (2018)[10] in their research about review on online pharmacy have discussed the upsurge of this model of purchasing medicines online which has created a huge demand of pharmacy on online platforms as well. The paper discussed the various advantages influencing a customer favour E-Pharmacy. Time as the essence of purchasing, taking online orders, availability of medicines, right from taking an order online till end to end delivery model (Supply chain model) affects the performance.

Alison et.al.(2022)[11] in their research the rise of E-Pharmacy in India, discussed the difference between online and offline purchasing of medicines. Internet penetration, digital India, government support, changing lifestyle and disease progression, pandemic outbreak are the driving factors of boom of E-Pharmacy facet. The increase of government intervention to work upon a robust policy model, provide clear cut laws to provide a friendly environment for existing players were the findings of the study.

Bansal (2022)[12] in their study measure the vigilance towards the online purchase of medicines. Majority of the consumers normally prefer to buy offline due to quality issues with medicines and lack of safe websites. Utmost reason for buying the medicine online was deficiency of availability in the market and differences in prizes matter the most. Consumers normally prefer to consult a physician before purchasing a medicine online, hence online consultation needs to be an added advantage.

All reports and survey direct towards the strong penetration of the online pharmacies which shows that emerging online pharmacies in a market are a giant threat to unorganized pharmacies.

Methodology

In the present study, the customer preferences are considered as an information source to measure the relative popularity of online pharmacies and unorganized pharmacies. Efforts have been made to dig out the major factors which regulate the buying behaviour of the customers. Method adopted to achieved the objective is systematically represented in steps –

Step1: Formulation of the Problem: The major focus area of the problem is the porter's competitive force. Out of the five forces (Threat of Substitute, Threat of new entrants, competitive rivalry with already existing competitors, bargaining power of the buyer, and bargaining power of the supplier), Threat of new entrant is considered in the present study. The online pharmacies were considered as new entrant in the study.

Step 2: Sampling and data collection: A convenience sampling was done and data was collected from customers to know the reason to patronize the online pharmacies. A close ended questionnaire containing 13 variables was prepared and administered among the customers. The sample size taken for the study was 300.

Step 3: Data reliability test: Cronbach's alpha reliability test conducted on all 13 variables to ensure the reliability of the data.

Step 4: Deletion of Variable: Based on alpha value one item has been deleted from the study to improve the data reliability.

Step 5: Factor Analysis has been performed to reduce all 12 variables into few factors. It extracts maximum common variance from all variables and consolidates them into a common score.

Step 4: Data reliability has again been checked to ensure significant combinations of variable in each factor.

Step5: Based on obtained factors, the reasons of customer preference for online pharmacies has been explored and recommendations were prescribed for unorganized pharmacies to scan the competitive environment and to become responsive with reference to factors sorted in the study.

Analysis and Findings

The **Table 1** exhibits profile of the respondents taken for the study, out of 300 respondent 170 is female (56.7%) and 130 (43.3%) respondents are male. Majority of respondent belong to the age group 31-40 and 41-50, as the people of this age group are both customer and consumer on the other hand people belong to age group more than 60 are usually consumers, very rare they are customers.

Table 2 represents Cronbach's alpha reliability test conducted on all 13 variables. The Cronbach's alpha test was found to be 0.761, indicating variables taken for the study are reliable.

Table 1: Profile of the Respondents

	Description	Frequency	Percentage
Gender	Male	130	43.3
	Female	170	56.7
Age Group	20-30	14	4.6
	31-40	130	43.3
	41-50	130	43.3
	More than 51	26	8.7

Table 2 Reliability test

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.761	0.762	13

To further improve the reliability of data, Cronbach's alpha has been observed after deletion of an item **(Table 3);** accordingly, one item has been deleted from the worksheet. The resultant reliability statistics after removal of item no 13 is 0.782 as represented in **Table 4**

Table 3: Cronbach's Alpha if an Item is Deleted

No. of factors	Factors	Cronbach's Alpha if Item Deleted
1	No of Pharmacy Shops in your surroundings	0.767
2	Easy to order medicine from online pharmacies	0.724
3	Online pharmacies save money	0.737
4	Home delivery is the attraction	0.723
5	Payment mode is most attractive in Online mode	0.722
6	Placing online order save time	0.730
7	There is a privacy and confidentiality in online shopping that attracts you most	0.714

8	In Online pharmacy all types of drugs are available, which is an issue in physical shops	0.764
9	Prescription and patients description are verified in online pharmacy attracts you	0.740
10	Online pharmacies give information about medicines and illness	0.764
11	Face to Face interaction in online pharmacies is satisfactory	0.766
12	For the purchase of over-the-counter drugs (Non-Prescribed drugs) online pharmacy is not effective	0.744
13	Personal and financial information are compromised in online pharmacy	0.782

Table 3 shows that the removal or deletion of item 13 increases data reliability upto 0.782. This is justified by the fact that the information served by item no 7 and 13 is eventually same.

Table 4: The resultant reliability statistics after removal of item no 13

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.782	0.788	12

Factor Analysis

Factor analysis has been performed to reduce all the 12 variables into factors, this technique extracts maximum common variance from all variables and puts them into a common score. In present study it will represent the factors contributing in the new entrant threat. Principle component analysis is employed to extract factors. Orthogonal rotation with varimax is applied in SPSS V.22.0

The Bartlett test of sphericity was significant at 118 degrees of freedom ($\chi 2 = 212.374$, $p < 0.01$), this shows the significant correlation among the variables selected for factor analysis. The result of KMO and Bartlett's test is represented in **Table 5**. Another statistical parameter used to validate the suitability of data for factor analysis is KMO test which is significant (0.787) for the data.

Table 5: KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.787
Bartlett's Test of Sphericity	Approx. Chi-Square	212.374
	Df	118
	Sig.	.000

On the basis of factor analysis there are four factors extracted, with eigen value 4.046, 2.140, 1.597 and 1.155respectively, 78.484% is the total cumulative variance obtained in the factor analysis. The Eigen values, percentage of variance, and cumulative percentage variance is represented in **Table 5**

Table 5: Rotated Component Matrix					
S.No	Statements	Component			
		1	2	3	4
2	Easy to order medicine from online pharmacies	0.940			
3	Online pharmacies save money	0.895			
4	Home delivery is the attraction	0.802			
5	Payment mode is most attractive in Online mode	0.814			
6	Placing online order save time	0.533			

7	There is a privacy and confidentiality in online shopping that attracts you most		0.611		
8	In Online pharmacy all types of drugs are available, which is an issue in physical shops		0.700		
10	Online pharmacies give information about medicines and illness		0.853		
1	No of Pharmacy Shops in your surroundings			0.771	
12	For the purchase of over-the-counter drugs (non-Prescribed drugs) online pharmacy is not effective			0.798	
9	Prescription and patient's description are verified in online pharmacy attracts you				0.511
11	Face to Face interaction in online pharmacies is satisfactory				0.900
Total		4.046	2.140	1.597	1.155
% of variance		33.714	17.835	13.308	9.627
Cumulative %		33.714	51.549	64.857	74.484

Factors representing competitive force on unorganized retail pharmacies:

In **Table 6** all the 12 items are reduced in four factors which represents the major areas which affect the overall performance of unorganized retail pharmacies and create competitive forces due to rapidly increasing entry of online pharmacies. The reliability value for each factor is also represented in **Table 6**

Table 6 : Reliability value for each factor

S.No	Factors	Statements	Loadings	Cronbach's Alpha
1	Shopping Ease	Easy to order medicine from online pharmacies	0.940	0.88
		Online pharmacies save money	0.895	
		Home delivery is the attraction	0.802	
		Payment mode is most attractive in Online mode	0.814	
		Placing online order save time	0.533	
2	Trustworthy	There is a privacy and confidentiality in online shopping that attracts you most	0.611	0.645
		In Online pharmacy all types of drugs are available, which is an issue in physical shops	0.700	
		Online pharmacies give information about medicines and illness	0.853	
3	Non prescribed drugs and No. of shops in surroundings	No of Pharmacy Shops in your surroundings	0.771	0.546
		For the purchase of over-the-counter drugs (non-Prescribed drugs) online pharmacy is not effective	0.798	
4	Personal Counselling	Prescription and patient's description are verified in online pharmacy attracts you	0.511	0.581
		Face to Face interaction in online pharmacies is satisfactory	0.900	

Recommendations

Shopping Ease: This is the most positive aspect of online purchase, and due to packed schedule of customer they usually prefer online buying of the medicine. To provide utmost comfort, unorganized pharmacies should not keep their customer waiting, compulsorily provide UPI or other scan mode of payment, and manage to deliver the medicine on call.

Trustworthiness: The most common issue that lose the customer's trust is poor inventory management by the unorganized pharmacies. Usually, the unorganized pharmacies are specifically keeping the medicines which are mapped with the prescription patterns of few doctors. On contrary online pharmacies are free from all biases.

By making proper information sharing system, unorganized pharmacies may be able to pause the customer shift to online pharmacy.

Non prescribed Drug: Over the counter drug (OTC) may be the strong part of the unorganized pharmacies, since customer can purchase these drugs without prescription also and these drugs are not emergency drugs. For OTC drugs most of the respondents prefer unorganized pharmacies.

Personal Counselling: In the case of medicine, there is no choice-based need of customer, rather the medicines are purchased as prescribed by the doctor. Some online pharmacies are providing personal counselling sessions to the patients to make them understand the mode of action of drugs, do's and dont's of medication, how to mitigate side effect of any drug etc.

Conclusion

The study revealed that there are four major practices i.e., shopping ease, trustworthiness, non-prescribed drug's market and personal counselling that is responsible for the penetration of online pharmacies. It is a high time for unorganized retail pharmacies to revamp their practices to face the competitive force of online pharmacy as new entrant in retail pharmacy sector. The relative dominance of these factor can be interpreted by taking Cronbach's Alpha values into consideration- shopping ease (0.88), trustworthiness (0.645), non-prescribed drug's market (0.546) and personal counselling (0.581). However, still market is driven by sentiments, and most powerful tool is word-of-mouth. The factors identified in the study are certainly useful for an unorganized pharmacy to face one of the five Porter's competitive force i.e., Threat of New entrant.

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