



# **A Study On Awareness About E-Pharmacy Among Rural People Of Malur In Kolar District, Karnataka**

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## **Abstract:**

Pharmacy Is One Of The Largest Industry In India . E-Pharmacy Is Fastest Growing Sector Right Now. As Per The Equity Master Report. India Stand Third In The Volume E-Pharmacy Is Basically Ordering Medicine Through Online With The Help Of Internet Technology. This Has Made Buying Medicines More Convenient And Easier To Get Your Medicines At Your Door -Step. During Pandemic Period Awareness About E-Commerce Platform Had A Major Role Both Rural And Urban Peoples. The E-Pharmacy Sector In India Has Grown Because Of The Increased Accessibility Of E-Pharmacy During A Pandemic Like Netmeds, 1mg, Easymedico, Medlife And Apollo Pharmacy. System Which Would Be Free Of Middlemen Causing Distortions, And Price / Quality Mismatch. This Research Paper Focus To Analyse The Adoption Of E-Pharmacy Among Rural People With Reference To Malur In Kolar District, Karnataka. Their Use Of Online System Comparatively Lower Than The Urban People. So That This Paper Deals With The Influential Factors And Problems To Use E-Pharmacy Among Rural People. 200 Samples Collected Through Random Sampling Method From Malur In Kolar District, Karnataka. This study using primary data collection method.

**Keywords: Awareness, E-Pharmacy, Rural People, Influential Factors, Challenges**

## **Introduction:**

E-transformation is a significant stage in the evolution of information and communication technology (ICT). It is the start of something new of communication, one that will result in more efficient and effective communication. The trend of e-transformation had an impact on health services (e-health). Within that manner, the word "e-health" becomes known to the scientific communities in the early 1990s. Mea characterized it as follows: "e-health comprises health care applications that have an electronic background to create a foundation for networking and health service operations."

This pharmaceuticals market in India was expected to be valued US\$33 billion in the year 2017. During February 2019, the Indian pharmaceutical market expanded by 10% year after year.

E-pharmacies are online communities where customers can purchase medicines and have them delivered quickly. Ever since inception of e-pharmacies in India, the manner of placing online purchases, receiving orders, and delivering them on time has resulted in increased consumer satisfaction and rising demand in this market. India's pharmaceutical sector is often regarded as the world's largest provider of generic medications. As per the Indian Brand Equity Foundation's (IBEF) assessment on the Indian pharmaceuticals business, India's contribution to generic world trade is approximately 20% and is anticipated to raise USD 22 billion by 2020.

But according to a Frost & Sullivan analysis, the e-pharmacy business is predicted to reach INR 25,000 crores by 2022. Regardless of the fact that it is still in its early stages in India, e-pharmacy has established itself as a fantastic new idea and strategy for the healthcare sector. It is likely to increase in the coming years as a response of quickly customers' changing needs, ease of starting prospects, a good policy regime, and economic development of The region, wherever access to medications and online services is now in growing market.

Given the recent COVID-19 (SARS-CoV-2) virus that resulted in total lockdown to limit the spread of infectious diseases the necessity for e-pharmacies has indeed been identified, specifically with respect to individuals suffering from chronic conditions.

Well according to the consultancy company EY's research "E-pharmacy: providing better results," the proposed target medication market for E-pharmacies is expected to reach US\$18.1 billion by 2023, up from US\$9.3 billion in 2019, at quite a CAGR of 18.1%. The rise in population, increasing chronic diseases, a constant increase in internet access, and Smartphone possession are all contributing to the expansion of the E-pharmacy business. One of the most major demand drivers is access to internet and web-based services. The E-pharmacy industry is expected to grow at a 15.2 percent CAGR between 2019 and 2024.

Every year, approximately 1.5 million people are introduced to the Indian population. India is predicted to overtake China as the world's most populous country by 2022, and the patient group is anticipated to expand dramatically during the next years.

With the help of technology, healthcare is expected to be massively altered and transformed to a system where the consumer would be informed and empowered. This shift could be brought about by an e-Healthcare model, which is built around solving problems of the consumer in the most optimized manner, where the consumer would have the power of knowledge and demand better service, a transparent system which would be free of middlemen causing distortions, and price / quality mismatch. At the same time, an online model, operating across the country, to procure healthcare services will ensure organized tracking and recording of the data for audit trails, thus making the healthcare system more structured. One of the

technology innovations which have positioned itself as an attractive model in the online healthcare space is e-Pharmacy and this model is expected to create a huge demand in the future.

### **Statement of the problem**

E-pharmacy is booming in Indian market and there are more than 60 e-pharmacies doing business in India. The awareness of e-pharmacy among rural people is very less. To explore the awareness of e-commerce platform, the study was conducted on the topic of consumer awareness of e-pharmacy in rural people with special reference to Malur, Kolar district of Karnataka.

### **Review of literature**

Seema Bansal et al (2022) in their study on "A Preliminary study to evaluate the behaviour of Indian population towards E-Pharmacy" indicate that people used internet to search medical information. The study revealed that maximum no. of individuals purchase both branded and generic medications. It has been concluded that main feature which would attract the use of online pharmacy such as differences in the prices and non availability of medications in market.

Nandagopan (2022) in his study on "to study consumer awareness and preferences of E-pharmacy during COVID period with reference to Coimbatore city" shows that it is critical in business to understand consumer behaviour and purchasing trends for its products. It reveals that pharmaceutical market is volatile and found that due to COVID -19 online pharmacies are gaining popularity due to variety of factors such as contactless delivery of medication, exclusive offers and discounts and effective customer relationship management.

Senthil Kumar (2021) in his study on consumer awareness and preference of E-pharmacy with special reference to Coimbatore city reveals that purchasing medicines from online pharmacies was not a common practice among the respondents. Consumers need to be educated about the risk and benefits associated in purchasing drugs through E-pharmacy platforms. The study suggest that e-pharmacy companies has the highest market share and create good loyalty and trust worthiness among the consumers.

### **Objectives**

1. To identify relation between demographic factor and usage of E-pharmacy Services
2. To analyse the influential factors to adopt e-pharmacy among rural people

### **Research methodology:**

#### **Data analysis:**

A quantitative descriptive research was conducted to explore the consumer awareness and preferences towards E-pharmacy in rural area. A random sampling technique has been used to collect responses from 200 respondents. Primary data has been collected and analysed with the help of statistical tool to derive the result.

**Table1****Demographic analysis**

<b>Age (years)</b>	<b>percent</b>	<b>Educational Qualification</b>	<b>percent</b>
<b>Less than 25</b>	<b>40</b>	<b>+2</b>	<b>38</b>
<b>25-30</b>	<b>44</b>	<b>Graduates</b>	<b>40</b>
<b>30-35</b>	<b>10</b>	<b>Post Graduate</b>	<b>16</b>
<b>35&amp;Above</b>	<b>6</b>	<b>Others</b>	<b>6%</b>
<b>Total</b>	<b>100</b>	<b>Total</b>	<b>100</b>
<b>Gender</b>	<b>percent</b>	<b>Monthly income (RS)</b>	<b>Percent</b>
<b>Male</b>	<b>52</b>	<b>Less than 25 K</b>	<b>38</b>
<b>Female</b>	<b>48</b>	<b>25k-40K</b>	<b>30</b>
<b>Total</b>	<b>100</b>	<b>40K-55K</b>	<b>20</b>
		<b>Above 55K</b>	<b>12</b>
		<b>Total</b>	<b>100</b>

(source: field survey 2022)

The above table provides demographic analysis of age, Gender, educational qualifications and monthly income. Out of 200 respondents maximum respondents are on the age group between 25-30, around 44%. Maximum are males around 52%. Majority of the respondents are graduate with an monthly income of less than 25K per month.

**Table:2 Gender using E-pharmacy Services Cross tabulation**

		How often you Using E-pharmacy Services ?				Total
		Always	occasionall y	Rarely	Do not visit	
Gender	Male	Count 8	32	60	4	104
	% within Gender	7.7%	30.8%	57.7%	3.8%	100.0%
Gender	Female	Count 8	44	24	20	96
	% within Gender	8.3%	45.8%	25.0%	20.8%	100.0%
Total	Count	16	76	84	24	200
	% within Gender	8.0%	38.0%	42.0%	12.0%	100.0%

From the table one can observe that the female groups use E-pharmacy Services more promptly than the male groups. In other words the usage of E-pharmacy Services depends on the gender. To test this dependency holds in the population or not use the chi-square test. That is we use the chi-square test to test the hypothesis

**H<sub>0</sub>:** Usage of E-pharmacy Services is independent of Gender.

**H<sub>1</sub>:** Usage of E-pharmacy Services is dependents on Gender.

**Table 3****Chi-Square Test**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27.714 <sup>a</sup>	3	<0.001
Significant at5%			

The result of the chi-square test to test exhibited in the following table indicate that the test is significant as the p value is <0.05, so conclude that Usage of E-pharmacy Services is dependent on Gender.

**Table 4****Factors to influence rural people for the adopting of e-pharmacy system**

<b>Factors</b>	<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly disagree</b>	<b>Weighted Average</b>
Delivery	46	50	4	-	-	29.47
Time Saving	48	47	5	-	-	29.53
Convenience	37	43	20	-	-	27.8
Easy to use	29	46	25	-	-	26.93
Cost effectiveness	19	22	43	13	3	22.73
Discounts/offers	17	29	33	20	1	22.73

Source:field survey2022

The above table reveals that opinion of the respondents regarding the various factors influencing people to adopt E- Pharmacy system . And for that weighted average for each statement is calculated and the same is arranged in ascending order. So it is identified that the statement Time saving occupied first rank, Delivery got second rank, Convenience occupied the third rank, the Easy to use occupied fourth rank, cost effectiveness and discount/ offers got same rank as fifth.

**Factors influence rural people for adopting e-pharmacy system**

To find whether the factor influence rural people for adopting of e-pharmacy system were some Kruskal-Wallis test was applied.

The null hypothesis tested was

Ho:There was no significant difference on the factor influence rural people for adopting e-pharmacy system.

H1:There was significant difference

**Table 5****Factors to influence rural people for the adopting of e-pharmacy system**

<b>Factors</b>	<b>Kruskal Wallis test</b>	<b>Significant level</b>	<b>Inference</b>
<b>Delivery</b>	<b>7.035</b>	<b>0.030</b>	<b>Significant</b>
<b>Time Saving</b>	<b>12.230</b>	<b>0.005</b>	<b>Significant</b>
<b>Convenience</b>	<b>6.353</b>	<b>0.042</b>	<b>Significant</b>
<b>Easy to use</b>	<b>0.559</b>	<b>0.776</b>	<b>Not Significant</b>
<b>Cost effectiveness</b>	<b>1.874</b>	<b>0.392</b>	<b>Significant</b>
<b>Discounts/Offer</b>	<b>0.873</b>	<b>0.645</b>	<b>Not significant</b>

There was a significant difference in the factors to influence rural people for adopting e-pharmacy system like delivery(0.030)'time saving (0.005),convenience(0.042)and costeffectiveness(0.392).

There was no significant difference between the factors to influence rural people for adopting e-pharmacy system like easy to use(0.776) and Discounts/Offer(0.645).

**Limitations of the Study**

The study has few limitations..The respondents are reluctant to provide correct details regarding their monthly income and factors influence the rural people for adopting e-pharmacy system.The response are recorded on the basis of phrases given and may be an impediments for conducting a research.

**Findings:**

The study bring out the demographic profile and factor influence the rural people for adopting E-pharmacy system.The demographic analysis is measured in terms of Age,Gender,Educational qualification and Monthly income.It has used cross tabulation and Chi square test and found that it is significant for e-pharmacy services on the basis of Gender.

The Kruskal -Wallis test has been conducted for factors influencing rural people for adopting e-pharmacy system and found that there was significant difference like delivery,time saving ,convenience)and cost effectiveness.

**Conclusion:**

The rise of e-transformation has also had an impact on health services (e-health). Given the recent COVID-19 (SARS-CoV-2) pandemic, which resulted in total lockdown to avoid the spread of infectious diseases, the demand for e-pharmacies has been identified, especially with regard to individuals suffering from chronic conditions. E-Pharmacy improves consumer convenience and access. This will most importantly benefit chronic elderly patients living in nuclear families, and patients who are not in a condition to go out to find a pharmacy. E-Pharmacy also offers competitive pricing which thereby enables less affluent people to afford medicines. There are a lot of technology advancements that are coming up in the form of applications which help in bringing price transparency, create awareness, find an appropriate healthcare service provider, medicine reminders, and pregnancy alerts to the consumers. The demographical factors effecting the usage of E-pharmacy services. Health care systems are often highly dispersed, encompassing multiple locations such as clinics, inpatient wards, outpatient services, emergency departments, operating theaters, intensive care units, and labs.

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