

Perception of Generic Drugs under Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) in Vadodara

Komal Sunil Shinde¹, Tophan Pradhan², Dr. Paresh Patel³

^{1,2} *MBA-Pharmaceutical Management*

³ *Assistant Professor, Faculty of Management Studies, Parul University*

Abstract—Access to affordable healthcare remains a major challenge in developing countries such as India, where a large proportion of healthcare expenses are paid out-of-pocket by individuals. Generic medicines offer an effective solution to reduce treatment costs while maintaining therapeutic quality and safety. The Government of India launched the Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) to promote the use of quality generic medicines through Jan Aushadhi Kendras across the country.

The present study aims to analyze the perception of consumers toward generic medicines available under PMBJP in Vadodara city. The research focuses on understanding the level of awareness about PMBJP, identifying barriers affecting the adoption of generic medicines, and examining factors that facilitate their acceptance. A descriptive research design was adopted for the study, and primary data was collected using a structured questionnaire distributed through Google Forms. A total of 550 responses were analyzed using statistical tools such as reliability analysis and One-Way ANOVA with the help of Jamovi software.

The findings of the study reveal that although many respondents recognize the affordability of generic medicines, misconceptions regarding their quality and effectiveness still exist. The results also indicate that demographic variables such as age, gender, income, and occupation influence consumer perception toward generic medicines. The study concludes that increasing awareness, improving information dissemination, and strengthening trust in generic medicines are essential to enhance the acceptance and utilization of PMBJP medicines. The research provides useful recommendations for policymakers, healthcare professionals, and stakeholders to improve the effectiveness of the PMBJP scheme.

Index Terms—Generic Medicines, PMBJP, Consumer Perception, Affordable Healthcare, Jan Aushadhi Kendras, Pharmaceutical Policy

I. INTRODUCTION

The pharmaceutical industry plays a crucial role in improving global healthcare by developing, manufacturing, and distributing medicines that help prevent and treat diseases. However, the increasing cost of branded medicines has created significant financial pressure on patients, particularly in developing countries such as India where healthcare expenses are largely borne by individuals. (Selvaraj, 2018)

Generic medicines provide a cost-effective alternative to branded medicines while maintaining the same therapeutic effectiveness, safety, and quality standards. A generic drug contains the same active ingredients, dosage form, strength, and route of administration as its branded counterpart. These medicines become available once the patent protection of the original branded drug expires. Since generic manufacturers do not incur the high costs associated with drug discovery, research, and marketing, they are able to offer medicines at significantly lower prices. (FDA, 2022)

India is one of the largest producers of generic medicines in the world and is often referred to as the “Pharmacy of the World.” The country supplies a large proportion of generic medicines to global markets and plays an important role in ensuring affordable healthcare. (IBEF, 2024)

To further improve access to affordable medicines, the Government of India launched the Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP). Under this scheme, Jan Aushadhi Kendras have been established across the country to provide high-quality generic medicines at prices that are significantly lower than branded medicines. (GOI, 2024)

Despite the availability of affordable generic

medicines, many consumers continue to prefer branded medicines due to lack of awareness, misconceptions about quality, and limited trust in generic drugs. Understanding consumer perception toward generic medicines is therefore essential for improving the effectiveness of the PMBJP scheme (Dylst, 2013)

This study focuses on examining the perception of consumers toward generic medicines under PMBJP in Vadodara city and identifying the factors that influence their acceptance and usage.

II. LITERATURE REVIEW

Several studies have examined consumer awareness, perception, and acceptance of generic medicines and government initiatives such as PMBJP.

(Vineethan, 2025) conducted a study on consumer behaviour towards PMBJP and found that affordability and accessibility were the major factors encouraging consumers to purchase medicines from Jan Aushadhi Kendras. However, lack of awareness and doubts regarding medicine quality were identified as key challenges.

(Ballala, 2019) studied knowledge, attitudes, and practices related to generic medicines and found that more than half of the respondents initially had limited knowledge about generics.

The study concluded that educational interventions significantly improved public attitudes toward generic medicines.

(Chaturvedi, 2024) examined consumer perception of Jan Aushadhi Kendras and reported that while consumers appreciated the low prices of generic medicines, concerns about quality and availability influenced their purchasing decisions.

(Priyadarsini, 2023) conducted a comparative study on perception and use of generic medicines and found that although many respondents were aware that generic medicines contain the same active ingredients as branded drugs, hesitation in actual usage remained due to lack of trust.

(Choulera, 2018) studied awareness about generic medicines among patients and found that a large number of participants were unaware of the price difference between generic and branded medicines. The study highlighted the need for stronger awareness programs.

(Gupta, 2023) analysed knowledge and experiences

regarding generic medicines among healthcare professionals and the public. The findings revealed that although awareness was high, doubts regarding bioequivalence and effectiveness still existed among many participants.

(Vishwakarma, 2025) examined consumer perception of generic versus branded medicines and found that while most respondents acknowledged the affordability of generics, concerns about quality and safety continued to influence consumer preference for branded medicines.

Overall, previous research suggests that generic medicines offer significant economic benefits but face challenges related to awareness, trust, and perception. These findings highlight the importance of consumer education and effective policy implementation to increase the acceptance of generic medicines.

III. PROBLEM STATEMENT

Despite the government's efforts to promote affordable medicines through the Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP), the adoption of generic medicines remains limited among many consumers. Lack of awareness, misconceptions about the quality and effectiveness of generic medicines, and the continued preference for branded drugs hinder the success of the scheme. (Gupta, 2023)

In Vadodara city, although Jan Aushadhi Kendras are available, many consumers are either unaware of their existence or reluctant to purchase medicines from these outlets due to doubts about generic drugs. These issues create a gap between the policy objective of providing affordable medicines and the actual utilization of the scheme by the public. (Colgan, 2015)

Therefore, it is important to examine the perception of consumers toward generic medicines under PMBJP and identify the factors that influence their acceptance. Understanding these factors will help policymakers and healthcare providers develop strategies to improve awareness, trust, and usage of generic medicines.

IV. OBJECTIVES OF THE STUDY

1. To assess the level of awareness and knowledge about PMBJP and generic medicines among residents of Vadodara.
2. To explore public perceptions, attitudes, and trust regarding the quality and effectiveness of generic drugs under PMBJP.
3. To identify barriers and facilitators influencing the acceptance and utilization of generic medicines in Vadodara.
4. To recommend strategies for improving awareness, acceptance, and usage of generic drugs in the study area.

HYPOTHESIS

1. H1 - The majority of Vadodara residents have limited awareness about PMBJP and the availability of generic medicines.
2. H2 - There exist significant misconceptions and distrust about the quality and efficacy of generic drugs among the community among different age groups.
3. H3 - Social stigma, lack of reliable information, and unsuccessful outreach are major barriers to the utilization of generics among genders.
4. H4 - Strengthening targeted information

campaigns as can meaningfully improve awareness, acceptance, and uptake of generic medicines in Vadodara across different occupation

V. RESEARCH METHODOLOGY

This study adopted a descriptive research design to analyze consumer perception toward generic medicines under PMBJP.

Primary data was collected using a structured questionnaire distributed through Google Forms. The questionnaire included demographic questions and Likert-scale statements related to perception, barriers, and facilitating factors.

Secondary data was collected from research articles, government reports, and online academic sources.

The target population consisted of individuals aged 18 years and above residing in Vadodara city. A total of 550 respondents participated in the survey.

Convenience sampling technique was used for selecting respondents.

Data analysis was conducted using Jamovi statistical software. One-Way ANOVA was applied to analyze differences in perception across demographic variables.

VI. DATA ANALYSIS AND INTERPRETATION

Descriptive Analysis

DEMOGRAPHIC VARIABLES	CATEGORIES	FREQUENCY	PERCENTAGE
AGE	18-15	255	46.8%
	26-35	77	13.9%
	36-45	83	15%
	46-60	93	16.8%
	Above 60	42	7.6%
GENDER	Male	226	40.8%
	Female	324	59.2%
INCOME	<300000	300	54.9%
	300000-500000	159	28.7%
	500000-800000	63	11.4%
	>800000	28	4.9%

OCCUPATION			
	Student	236	43.3%
	Private Employee	124	22.4%
	Government Employee	49	8.8%
	Business	64	11.6%
	Homemaker	40	7.2%
	Retired	37	6.7%

Descriptive statistics were used to summarize the demographic characteristics of respondents and to understand general trends in consumer perception.

The analysis of demographic data revealed that the majority of respondents belonged to the 18–25 years age group, indicating that younger individuals formed a large proportion of the survey participants. In terms of gender distribution, female respondents slightly outnumbered male respondents.

Regarding income levels, a significant number of respondents reported annual income below ₹3,00,000, suggesting that affordability of medicines is an important factor for many participants. The occupational distribution showed that a considerable proportion of respondents were students, followed by employed individuals and business professionals.

Descriptive results also indicated that a large percentage of respondents were aware of the concept of generic medicines. Many respondents recognized that generic medicines are generally more affordable than branded medicines. However, despite this awareness, some respondents expressed concerns regarding the quality, effectiveness, and reliability of generic medicines.

These findings suggest that while consumers are aware of the cost advantages of generic medicines, their perceptions are still influenced by doubts regarding their therapeutic equivalence to branded drugs.

Inferential Analysis (One-Way ANOVA)

One-Way Analysis of Variance (ANOVA) was used to determine whether significant differences exist in consumer perception toward generic medicines across different demographic groups such as age, gender, income, and occupation.

Age-wise Analysis

There is a significant difference in awareness about PMBJP across different age groups

One-Way ANOVA (Welch's)

	F	df1	df2	p
Total Perception	45.2	4	176	<.001

	Age	N	Mean	SD	SE
Total Perception	18-25	255	2.80	0.689	0.0432
	26-35	77	3.42	0.553	0.0631

Age	N	Mean	SD	SE
36-45	83	3.55	0.437	0.0479
46-60	93	3.48	0.493	0.0511
above 60	42	3.45	0.511	0.0788

The ANOVA results indicated that there were differences in perception across different age groups. Older respondents generally demonstrated higher awareness about generic medicines and government healthcare initiatives such as PMBJP. Younger respondents, on the other hand, were found to rely more heavily on physician recommendations and brand familiarity when choosing medicines.

This suggests that middle-aged individuals are more aware of generic medicine initiatives, possibly due to greater healthcare engagement or higher exposure to medical services compared to younger individuals.

Since $p < 0.05$, the null hypothesis is rejected, and the alternative hypothesis is accepted.

Gender-wise Analysis

There is a significant difference in Perceived barriers towards generic drugs between genders

One-Way ANOVA (Welch's)

	F	df1	df2	p
Total Barriers	126	1	536	<.001

	Gender	N	Mean	SD	SE
Total Barriers	Male	226	2.51	0.551	0.0367
	Female	324	3.10	0.683	0.0380

The results show that female respondents reported higher perceived barriers (Mean = 3.10) compared to male respondents (Mean = 2.51).

This suggests that female respondents perceive more obstacles, which may be influenced by factors such as access to information, confidence in decision-making, or reliance on external advice while making related choices.

These differences highlight the importance of targeted awareness campaigns that address specific concerns among different demographic groups.

Occupation-wise Analysis

There is a significant difference in Facilitating factors for acceptance of generic drugs across different occupation

One-Way ANOVA (Welch's)

	F	df1	df2	p
Facilitator Mean	56.0	5	150	<.001

	Occupation	N	Mean	SD	SE
Facilitator Mean	Student	236	2.55	1.231	0.0801
	Private Employee	124	4.14	0.783	0.0703
	Government Employee	49	4.17	0.653	0.0932
	Business	64	4.02	0.853	0.1066
	Homemaker	40	3.73	0.858	0.1356
	Retired	37	4.05	0.822	0.1352

These findings suggest that professionally active individuals perceive stronger enabling factors, possibly due to greater exposure to healthcare awareness and information channels.

Government employees show the strongest facilitating factors toward adopting generic medicines, possibly due to better awareness of government healthcare initiatives.

There is significant difference in facilitating factors for acceptance of generic medicines across different occupation.

Overall Interpretation

The overall analysis indicates that while consumers acknowledge the affordability of generic medicines, several psychological and informational barriers

continue to influence their acceptance. Lack of trust in the quality and effectiveness of generic medicines remains one of the most significant obstacles.

Additionally, demographic factors such as age, gender, and occupation significantly influence consumer perception and decision-making regarding generic medicines. These findings highlight the need for improved awareness programs and stronger communication strategies to build public trust in generic medicines.

VII. FINDINGS

Based on the analysis of survey data and statistical results, the following key findings were identified:

1. The study found that awareness about generic medicines exists among a large proportion of respondents; however, awareness about the PMBJP scheme and Jan Aushadhi Kendras is relatively limited.
2. Most respondents acknowledged that generic medicines are significantly more affordable than branded medicines, which makes them attractive for cost-conscious consumers.
3. Despite the affordability advantage, concerns regarding the quality, effectiveness, and safety of generic medicines remain prevalent among many consumers.
4. Demographic variables such as age, gender, and occupation significantly influence consumer perception toward generic medicines.
5. Older respondents and students were found to be more aware of generic medicines and government healthcare initiatives compared to older respondents.
6. Recommendations from doctors and healthcare professionals strongly influence consumer decisions regarding the use of generic medicines.
7. Lack of information and limited promotion of Jan Aushadhi Kendras were identified as major barriers to the wider adoption of generic medicines.
8. Consumers indicated that improved availability of medicines, increased awareness campaigns, and stronger assurance regarding quality standards could increase their willingness to use generic medicines.

VIII. SUGGESTIONS

1. Government should increase awareness campaigns about PMBJP and generic medicines.
2. Doctors should be encouraged to prescribe medicines using generic names.
3. Educational programs should be conducted to build public trust in generic medicines.
4. Availability of medicines at Jan Aushadhi Kendras should be improved.
5. Public information campaigns should highlight the quality standards of generic medicines.

IX. RECOMMENDATIONS

Based on the findings of the study, it is evident that while awareness of generic medicines exists, concerns regarding quality, trust, and limited knowledge of PMBJP persist. Therefore, it is recommended that policymakers and healthcare authorities strengthen awareness initiatives focusing on the safety, efficacy, and regulatory standards of generic medicines to address consumer misconceptions.

Healthcare professionals play a critical role in influencing consumer behavior; hence, encouraging doctors to prescribe generic medicines and conducting training programs for both physicians and pharmacists can enhance acceptance. Additionally, transparent communication regarding the pricing of generic medicines is necessary to eliminate the perception that lower cost implies inferior quality. Improving accessibility to Jan Aushadhi Kendras by expanding their network and ensuring consistent availability of medicines is also essential. The use of digital platforms to provide information on store locations, medicine availability, and pricing can further enhance consumer convenience and awareness.

Finally, policy-level interventions such as promoting generic prescriptions in public healthcare systems and implementing regular monitoring mechanisms can strengthen the effectiveness of the PMBJP initiative. A combined focus on awareness, trust-building, accessibility, and policy support is crucial for increasing the adoption of generic medicines.

X. CONCLUSION

The present study aimed to analyze consumer perception toward generic medicines under the Pradhan Mantri Bhartiya Janaushadhi Pariyojana in Vadodara city. The findings provide valuable insights into consumer awareness, perceived barriers, and factors influencing the acceptance of generic medicines.

The results indicate that while consumers recognize the affordability and economic benefits of generic medicines, misconceptions regarding their quality and effectiveness continue to limit their adoption. Many respondents still associate branded medicines with higher quality, which influences their purchasing decisions.

Demographic characteristics such as age, gender, income, and occupation were found to significantly influence consumer perception toward generic medicines. Younger respondents and individuals with lower income levels demonstrated greater openness toward generic medicines, while higher income groups showed stronger preference for branded products.

The study also highlights that healthcare professionals play a crucial role in shaping consumer attitudes toward generic medicines. Recommendations from doctors and pharmacists significantly increase the likelihood of consumers adopting generic alternatives.

For the PMBJP scheme to achieve its objective of providing affordable healthcare, it is essential to strengthen public awareness campaigns and improve consumer confidence in generic medicines. Educational initiatives should focus on communicating that generic medicines are subject to the same quality, safety, and efficacy standards as branded medicines.

Furthermore, improving the visibility and accessibility of Jan Aushadhi Kendras can encourage greater utilization of generic medicines. Government authorities and healthcare institutions should collaborate to promote the benefits of generic medicines and ensure consistent availability of medicines at PMBJP outlets.

Overall, the successful implementation of PMBJP has the potential to significantly reduce healthcare expenditure and improve access to affordable

medicines for the population.

Strengthening awareness, trust, and accessibility will be key factors in maximizing the impact of this important healthcare initiative.

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