

## **ROLE OF DIGITAL TECHNOLOGY IN ENHANCING PUBLIC AWARENESS OF GOVERNMENT INITIATIVES ON GENERIC MEDICINE**

*\* Prof. Dr. Kishori Jagdish Bhagat & \*\* Chetna Kukrety*

*\* Research Guide, \*\*Research Scholar, University of Mumbai, Pragati College, Dombivli*

### **Abstract:**

*The rising penetration of digital media has transformed consumer awareness and healthcare decision-making patterns. Generic medicines have emerged as a cost-effective alternative, yet their acceptance largely depends on public perception and awareness. In recent years, digital platforms have played a crucial role in influencing consumer attitudes toward pharmaceutical products. This study explores the role of digital technology in enhancing public awareness of government initiatives on generic medicine.*

**Key words:** *Digital Technology, Public Awareness, Government Initiative, Generic Medicine*

**Copyright © 2026 The Author(s):** This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial Use Provided the Original Author and Source Are Credited.

### **Introduction:**

Rising healthcare costs have constrained access to essential medicines, particularly among low- and middle-income populations. India, a leading producer of generic medicines, faces persistent challenges in public adoption due to limited awareness and misconceptions about quality, safety, and efficacy. To address these gaps, the integration of technology and innovative digital strategies has emerged as a crucial tool for enhancing public knowledge and engagement.

Digital marketing and technology-driven initiatives, such as social media campaigns on Facebook, Instagram, and YouTube, Government portals, and mobile applications like Janaushadhi Sugam, allow stakeholders to disseminate accurate and accessible information about generic medicines. Digital technologies help spread information quickly and make it easier for people to understand new ideas, which improve their awareness, opinions, and actions while reducing information asymmetry. These platforms also enable real-time interaction, feedback, and personalised communication, fostering greater trust and transparency between the government, healthcare providers, and citizens. As a result, technology not only increases outreach but also encourages informed decision-making and wider acceptance of affordable generic alternatives.

### **Review of Literature:**

**Dunne and Dunne (2015)** A study examined doctors', pharmacists', and patients' views on generic medicines. Opinions improved, yet quality concerns persisted. Patients trusted less, pharmacists faced challenges, doctors depended on policies, and better communication remained the main need.

**The Hindu Bureau (2025).** Based on information from an online national newspaper, the government's Pradhan Mantri Bhartiya Janaushadhi Pariyojana was strengthened through directives to open stores in every mandal, aiming to expand affordable generics, reduce costs, build public trust, and improve healthcare access overall.

**Ministry of Chemicals and Fertilisers (2023)** Based on an online government publication, the Ministry of Chemicals and Fertilisers organised nationwide seminars during Jan Aushadhi Diwas 2023 under the Pradhan Mantri Bhartiya Janaushadhi Pariyojana, educating pharmacy and medical students about benefits, quality, affordability, entrepreneurship, and acceptance future.

**Pharmaceuticals and Medical Devices Bureau of India (PMBJP) (2025).** Reported on the official Pradhan Mantri Bhartiya Janaushadhi Pariyojana platform, nationwide camps improved awareness, acceptance, and affordable community healthcare delivery for seniors nationwide access.

**Pradhan Mantri Bhartiya Janaushadhi Pariyojana (2025, March 3)** The post on Facebook states that the PMBJP promotes affordable generic medicines across India. On Day 3, events in 30 cities engaged Jan Aushadhi Bal Mitras with activities like sky lanterns, drawing competitions, and nutrition distribution to strengthen awareness and acceptance of quality, cost-effective generic drugs.

**NDTV India. (2025, May 11)** According to NDTV India coverage on YouTube, generic medicines offered equal efficacy and safety at lower prices, but limited promotion, lower margins, and fewer incentives reduced doctors' and pharmacists' support and overall adoption.

**Daoud et al., (2025)** Researchers showed digital technologies and social media improved healthcare communication and awareness. Instagram was used by professionals to share credible content, increasing trust and purchase decisions, while information supported effective education outcomes.

#### **Research Gap:**

Although existing studies have discussed government initiatives aimed at improving the availability and affordability of generic medicines, very few research studies have covered the role of technology and digital platforms in enhancing public awareness. Digital communication tools are increasingly used to disseminate health information, there is a lack of research evaluating their effectiveness in improving and increasing awareness of generic medicines. This gap needs a systematic investigation to identify the impact of digital innovations on awareness among the general public.

#### **Objectives of the Study:**

To study the level of awareness among the public about digital government-led initiatives that enhance public awareness of generic medicines.

#### **Hypothesis :**

Though the government has taken the initiative to propagate Generic Medicine on online platforms yet, the general public is not much aware of the same.

#### **Scope of the Study:**

- The study focused on the areas of Mumbai Western Suburban.
- The study covers the awareness on Government initiative of Generic Medicine only.

**Limitations:**

- The study is indicative in nature
- There is a limitation of time and resources.

**Research Methodology:**

- **Nature of Research:** The study is indicative in nature.
- **Population:** The Population of Mumbai Suburban, as per the census 2011, is 9,356,962<sup>1</sup>.
- **Sampling technique:** A random sampling technique was adopted for this study.
- **Sample size:** As the population size was large, the ideal sample size had to be 384. As this was indicative research, the sample size taken was 252.

**Data collection:** Both secondary and primary data were collected for the study.

- **Secondary Data:** Secondary data was gathered through research articles, newspapers, journals and government websites
- **Primary Data:** Primary data was collected through structured questionnaires sent through electronic media, covering both the medical and non-medical background public

**Data Processing:** The responses were edited, classified, and tabulated. Responses from the sample of 252 respondents were considered for analysis.

**Table 1: Descriptive Statistics - Demographic (IDV)**

Sr.No.	Variable	Category	Frequency	%
1	Age	Less than 25	98	38.9
		26 - 50	96	38.1
		Above 50	58	23.0
2	Educational qualification	HSC and below	65	25.8
		Highly Educated	187	74.2
3	Occupation	Medical professionals	88	34.9
		Non-Medical professionals	164	65.1
4	Role of Digital awareness in purchase decision towards generic medicines	Yes	222	88.1
		No	30	11.9
5	Role of Digital campaigns in improving public image towards generic medicines	Yes	246	97.6
		No	6	2.4

*Source: Authors compilation from SPSS, Note: R – H<sub>0</sub> Rejected*

It can be interpreted from Table 1 (Total 252 respondents)

- Majority of respondents were below 25 years (N=98) (38.9%) and 26–50 years were (N = 96) (38.1%), indicating that the study is majorly spread across among young and middle-aged individuals, while respondents above 50 years constitute (N = 58) (23.0%).

<sup>1</sup> Municipal Corporation of Greater Mumbai. (n.d.). Ward R/Central. Retrieved February 2, 2026, from [https://www.mcgm.gov.in/irj/portal/anonymous/qlwardrc?guest\\_user=english](https://www.mcgm.gov.in/irj/portal/anonymous/qlwardrc?guest_user=english)

- Most respondents were highly educated (N=187) (74.2%), while only (N=65) (25.8%) have education up to HSC or below
- Majority of the respondents were non-medical professionals (N = 164) (65.1%), while (N=88) (34.9%) were medical professionals.
- Majority of respondents (N=222) (88.1%) were of the opinion that digital awareness influences their decision to purchase generic medicines, while only (N=30) (11.9%) had a vice versa opinion.
- Almost all (N=246) (97.6%) of the respondents were of the opinion that digital campaigns help in improving the public image towards generic medicines, while the rest (N=6) (2.4%) came up with an opposite opinion.

It can be stated above that from all the demographic factors considered for the study, the responses were received from all of them To check whether the data is normal, a normality test was done.

**H<sub>0</sub>: The data is normal**

**Table 2: Normality Testing**

Dependent variable	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Awareness towards Generic Medicines	.162	252	.000	.924	252	.000 R

*Source: Authors compilation from SPSS Note: R – H<sub>0</sub> Rejected*

It can be interpreted from the Table-2 the significant value across both one sample K.S. test and the Shapiro-Wilk test were found to be less than 0.05, thereby indicating the failure of the data to match a normal distribution. As the data is non-normal, non-parametric test was conducted.

For checking the reliability of data, Reliability test was done. The result is as follows:

**Table 3: Reliability Testing**

Cronbach's Alpha	N
0.899	7

*Source: Authors compilation from SPSS*

It can be interpreted from the Table-3, value of Cronbach’s Alpha test towards measuring homogeneity of the sample was found to be 0.899, which is greater than the minimum value of 0.7, indicating reliability statistics of Cronbach's Alpha falls under the category of excellent. This indicated that the data collected was reliable towards further statistical analysis.

**Testing of Hypotheses:**

In order to proceed towards hypotheses testing the independent variables were measured using a Nominal Scale while the Dependent variable was measured using 5-point Likert Scale. Since the results of normality testing concluded distribution was non-normal in nature, hypotheses testing was performed using non-parametric test comprising the Mann-Whitney and Kruskal-Wallis test where the number of categories across the independent variable were found to be 2 or more than 2, respectively.

1. **H<sub>0</sub>**: There is no significant difference between Age and Digital Awareness towards Generic Medicines.  
**H<sub>1</sub>**: There is a significant difference between Age and Digital Awareness towards Generic Medicines.

**Table 4: Kruskal-Wallis test: Age and Digital Awareness towards Generic medicines**

Independent variable	Dependent variable	Sig. value.	Result
Age	Digital Awareness towards generic medicines	0.036	H <sub>0</sub> fail to retain R
Post Hoc		Less than 25 = 141.26 26-50 = 144.20 Above 50 = 118.84	

Source: Authors compilation from SPSS, Note: R – H<sub>0</sub> Rejected

Table 4 indicated that the H<sub>0</sub> is Rejected the significant value of Digital Awareness towards Generic Medicines was found to be 0.036 for the variable of Age, which was less than 0.05 indicating our failure towards acceptance of null hypothesis, henceforth post-hoc test was conducted and it was found the mean rank of 26-50 age group (144.20) was found to be greater than age group of less than 25 (141.26) and Above 50 years (118.84).

Interpretation: It can be interpreted that, though overall awareness is less. It is the least among the senior citizen.

2. **H<sub>0</sub>**: There is no significant difference between educational qualification and Digital Awareness towards Generic Medicines.

**H<sub>1</sub>**: There is a significant difference between educational qualification and Digital Awareness towards Generic Medicines.

**Table 5: Mann-Whitney U test: Educational qualification and Digital Awareness towards Generic medicines**

Independent variable	Dependent variable	Sig. value.	Result
Educational qualification	Digital Awareness towards generic medicines	0.016	H <sub>0</sub> fail to retain R
Post Hoc		HSC and Below = 145.18 Highly Educated = 120.01	

Source: Authors compilation from SPSS, Note: R – H<sub>0</sub> Rejected

Table 5 indicated that the H<sub>0</sub> is Rejected the significant value of Awareness towards Digital Generic Medicines was found to be 0.016 for the variable of educational qualification, which was less than 0.05 indicating our failure towards acceptance of null hypothesis, henceforth post-hoc test was conducted and it was found the mean rank of HSC and below (145.18) was found to be greater than that of Highly educated (120.01).

3. **H<sub>0</sub>**: There is no significant difference between Occupation and Digital Awareness towards Generic Medicines.

**H<sub>1</sub>**: There is a significant difference between Occupation and Digital Awareness towards Generic Medicines.

**Table 6: Mann-Whitney U test: Occupation and Digital Awareness towards Generic medicines**

Independent variable	Dependent variable	Sig. value.	Result
Occupation	Digital Awareness towards generic medicines	0.313	H <sub>0</sub> retained A

*Source: Authors compilation from SPSS, Note: A – H<sub>0</sub> Accepted*

Table 6 indicates that the H<sub>0</sub> is Accepted. The significant value of Digital Awareness towards Digital Generic Medicines was found to be 0.313 for the variable of Occupation, which was greater than 0.05, indicating acceptance of the null hypothesis and stating there is no significant difference between Occupation and Awareness towards generic medicines.

**Specific Findings :**

- The demographic study indicates that most respondents were below 50 years of age, highly educated, and from non-medical professions.
- Most respondents agreed that digital awareness affects the purchase of generic medicine, which shows that Digital awareness plays a crucial role in purchase behaviour.
- Most of the respondents believed that digital campaigns help to improve the public image of generic medicines, highlighting the effectiveness of online platforms and digital communication strategies.
- Digital awareness of generic medicines differs by age, with middle-aged people being the most aware, younger people moderately aware, and older adults the least aware, indicating a need for more focused support for the elderly.
- Digital awareness of generic medicines varies with educational background, as respondents with HSC and below showed slightly better awareness than highly educated individuals, indicating that awareness does not always depend on higher education and needs to be improved across all groups.
- Digital awareness towards generic medicines remains similar across different occupational groups (medical and non-medical backgrounds).

**General Findings:**

- Informal discussion revealed that the general public, particularly the younger generation, confuses generic medicine with Ayurvedic medicine, indicating a lack of clear understanding about the benefits of generic medicine
- It was found that while people are familiar with general digital platforms like Instagram and YouTube, they have limited awareness of specific government digital tools, including the Jan Aushadhi Sugam app and official websites where the online price list of generic medicines is available.

**Suggestions:**

- Greater efforts are required to improve digital awareness about generic medicines among the older generation through digital hoardings at hospitals and pharmacies, video demonstrations in waiting areas, and simple

step-by-step tutorials on using apps like Jan Aushadhi Sugam.

- Testimonials and short video reels by well-known influencers can be integrated with doctors, pharmacists, and health professionals and can be shared on social media to build more trust and clearly explain the safety, quality, and cost benefits of generic medicines
- AI-based chatbots and virtual assistants should be integrated into government websites and apps to answer queries, resolve doubts, and guide users
- Government bodies and healthcare organisations can increase digital campaigns to build trust and remove misconceptions about generic medicines.
- Special outreach programs combining offline assistance with digital support should target older adults and less digitally literate populations.
- Since the public is more familiar with social media than specific digital tools like the Jan Aushadhi Sugam app and government websites, these platforms should be promoted through popular channels such as Instagram and YouTube to increase awareness and usage.

#### **Conclusion:**

In today's digital era, digital awareness plays an important role in improving public awareness towards generic medicines. The study confirmed that digital awareness of generic medicines varied across age groups and educational levels, whereas no significant difference existed across occupational groups, including medical and non-medical backgrounds. Thus, the hypotheses related to age and education was accepted, while the hypothesis concerning occupation was retained.

Combining digital strategies with targeted offline assistance will ensure that all sections of society benefit equally, thereby promoting the wider acceptance through awareness of generic medicines and supporting affordable healthcare for all. Though the government has taken the initiative to propagate Generic Medicine on online platforms yet, the general public is not much aware of the same

The government is taking efforts to propagate Generic Medicine and make healthcare affordable to all public in general and low income group in particular. Yet the awareness efforts taken fall short, and hence more such awareness campaigns, along with the roping in of social media influencers and celebrity advertisements, can come as an enhanced initiative for the betterment of society at large

#### **References:**

1. Daoud, E., Al-Samydai, A., Al-Halaseh, L. K., Ali Agha, A. S. A., Al-Sammorraie, T. R., Al-Tarawneh, Z., Aldulaimi, A., Othman, F. A., Yousif, R. O., & Al-Hussaniy, H. A. (2025). *Social media's contribution to increasing consumer awareness: An applied study on Instagram's use among pharmacists. Journal of Education and Health Promotion, 14(1)*. [https://doi.org/10.4103/jehp.jehp\\_2126\\_24](https://doi.org/10.4103/jehp.jehp_2126_24)
2. Dunne, S. S., & Dunne, C. P. (2015). *What do people really think of generic medicines? A systematic review and critical appraisal of literature on stakeholder perceptions of generic drugs. BMC Medicine, 13(1)*, 173. <https://doi.org/10.1186/s12916-015-0415-3>

3. Manjula Bai, H. (2021). A study on customer awareness towards Pradhan Mantri Bharatiya Janaushadhi Kendra's with reference to Shimoga. *ComFin Research*, 9(1), 1–10. <https://doi.org/10.34293/commerce.v9i1.3257>
4. Ministry of Chemicals and Fertilizers. (2023, March 6). 6th day of ongoing Jan Aushadhi Diwas 2023 celebrated as "Aao Jan Aushadhi Mitra Banein": Pan-India seminars and workshops on PMBJP in pharma colleges and universities. *Press Information Bureau, Government of India*.
5. Municipal Corporation of Greater Mumbai. (n.d.). Ward R/Central. Retrieved February 2, 2026, from [https://www.mcgm.gov.in/irj/portal/anonymous/qlwardrc?guest\\_user=english](https://www.mcgm.gov.in/irj/portal/anonymous/qlwardrc?guest_user=english)
6. NDTV India. (2025, May 11). Generic vs. branded medicines: दोनों तरह की दवाओं में क्या फर्क? [Video]. *YouTub*<https://www.youtube.com/watch?v=jLuguAWLvmc>
7. Pharmaceuticals and Medical Devices Bureau of India. (2025, March 2). Jan Arogya Mela organised at 500 locations on the second day of Jan Aushadhi Diwas 2025 [Photograph]. *Instagram*.
8. Pradhan Mantri Bhartiya Janaushadhi Pariyojana. (2025, March 3). On the third day of the celebration of Jan Aushadhi Diwas 2025, PMBJP organised Jan Aushadhi Bal Mitra in 30 cities across the nation [Facebook post]. *Facebook*.
9. *The Hindu Bureau*. (2025, August 25). CM orders setting up Jan Aushadhi stores in every mandal. *The Hindu*.
10. Kothari, C. R. (2004). *Research methodology: Methods and techniques (2nd rev. ed.)*. New Age International Publishers
11. [http://ndl.ethernet.edu.et/bitstream/123456789/90291/20/%5BC.R.\\_Kothari%5D\\_Research\\_Methodology\\_Methods\\_and\\_T%28BookFi%29.pdf](http://ndl.ethernet.edu.et/bitstream/123456789/90291/20/%5BC.R._Kothari%5D_Research_Methodology_Methods_and_T%28BookFi%29.pdf)

**Cite This Article:**

**Prof. Dr. Bhagat K.J., & Kukrety C. (2026).** *Role of Digital Technology in Enhancing Public Awareness of Government Initiatives on Generic Medicine.* In **Educreator Research Journal: Vol. XIII (Issue II)**, pp. 66-74