

User perspectives on PM-WANI: An analysis of attitudes and behavioral intentions

Gajendra K Shirsale¹, Dr. Deepak Sharma², Dr. Yogita Patil³

¹ Research Scholar, KBC North Maharashtra University, Jalgaon, Maharashtra, India

² Research Guide and Professor, Commerce and Management, Datta Meghe Institute of Higher Education & Research, Deemed to Be University, Wardha, Maharashtra, India

³ Research Guide and Assistant Professor, G H Rasoni College of Engineering and Management, Jalgaon, Maharashtra, India

Abstract

This study examines into how users' views affect their behavioural intentions towards the Pradhan Mantri Wi-Fi Access Network Interface (PM-WANI), a government program to provide accessible and cheap public Wi-Fi services across India. A systematic questionnaire was used to gather data from 100 respondents. The reliability analysis showed that the assessment scales for Attitude ($\alpha = .798$) and Behavioural Intention ($\alpha = .900$) had satisfactory to outstanding internal consistency. Correlation results showed a significant positive relationship ($r = .819$, $p < .001$) between attitude and behavioural intention. A simple linear regression analysis found that attitude was significantly associated with behavioural intention, accounting for 67.1% of the variation. The findings indicate that users who have a positive attitude towards PM-WANI are likely to embrace, use, and promote the service. The study emphasises the necessity of developing favourable user views in order to drive digital inclusion, and it confirms the theoretical premise that attitudes have a substantial influence on behavioural intentions. These findings are useful for regulators and providers of services working to increase the adoption and sustainability of PM-WANI and other digital infrastructure initiatives.

Keywords: PM-WANI, attitude, behavioral intention, public Wi-Fi, Digital India, user adoption, technology acceptance

Introduction

(PM WANI, 2025) ^[6]

On December 9, 2020, the Union Cabinet, led by Prime Minister Narendra Modi, authorised the Department of Telecom's (DoT) plan to boost internet connectivity through public Wi-Fi networks using the Prime Minister's Wi-Fi connectivity Network Interface (PM-WANI) architecture. This program advances the goals of the 2018 National Digital Communications Policy (NDCP), which aims to create a robust digital communications infrastructure. The PM-WANI architecture provides broadband services via public Wi-Fi hotspot providers and comprises components such as the Public Data Office (PDO), Public Data Office Aggregator (PDOA), App Provider, and Central Registry.

Review of Literature

Understanding users' attitudes and behavioural intents is critical for the success of digital connection programs such as PM-WANI, which seeks to bring low-cost public Wi-Fi throughout India.

(Chatterjee *et al.*, 2023; Perri *et al.*, 2020; Yuan *et al.*, 2021)

^[2, 5, 11] Research on technology adoption regularly demonstrates that attitude, subjective norms, and perceived behavioural control are major predictors of users' intentions to use modern digital services. These traits are critical to the Theory of Planned Behaviour and the Unified Theory of Acceptance and Use of Technology (UTAUT), both of which have been validated in multiple technology contexts. (Perri *et al.*, 2020) ^[5] Attitude, subjective norm, and perceived behavioural control all have a positive influence on the desire to adopt smart energy consumption habits, whilst resistance to change has a negative impact.

(Chatterjee *et al.*, 2023) ^[2] CRM quality and satisfaction have a major influence on organisational users' attitudes and

intentions towards AI-powered CRM systems, whilst compatibility has less impact.

(Gupta, 2023) ^[3] PM-WANI can considerably boost the government's digital aspirations, such as seamless connectivity, digital accessibility, and enabling infrastructure. Furthermore, productivity increases from Wi-Fi may result in significant economic benefits.

(Vamvaka *et al.*, 2020) ^[10] The findings revealed that attitude has two components: instrumental and affective; perceived behavioural control has two components: perceived self-confidence and perceived ability to control; and the desire to be entrepreneurial can be expressed most effectively by three factors: choice intention, dedication to being an entrepreneur, and emerging entrepreneurship. The findings also revealed that emotional attitude and perceived self-confidence are by far the best indicators of intention, emphasising the importance of emotions in the entrepreneurial process.

(Yuan *et al.*, 2021) ^[11] According to the findings, digital expertise, perceived ease of use, perceived behavioural control, and perceived risk all have a significant favourable impact on users' attitudes towards social media use, although ICT facility and perceived usefulness do not. Users' attitudes are strongly linked to their intention to use social media services for learning.

(Sindakis & Showkat, 2024) ^[9] The facts show that India's rural population is largely youthful, meaning a workforce with significant potential for earnings and a greater possibility of adopting digital technologies. Furthermore, the survey emphasises the respondents' high level of education, suggesting a populace ready to value and profit from internet-based activities.

(Raman & Chebrolu, 2007) ^[7] WiFi technology is a low-cost alternative for rural internet connectivity in India, offering

advantages in network planning, protocols, management, power savings, and applications and services. (Sargam *et al.*, 2023) [8] This study analyses seven distinct determinants and eight subfactors that influence 5G adoption by Indian telecom service providers, as well as recommendations for regulatory interventions and tactics to accelerate adoption. (Chatterjee & Kar, 2018) [1] The successful deployment of information technology services in India's intended smart cities has the potential to change residents' lives while improving their quality of life; nevertheless, issues related to privacy and security must be addressed.

Research Design and Methodology

The current study's major goal is "to examine users' attitudes and behavioural intentions towards the PM-WANI initiative."

Hypothesis

H₀: Users' attitudes towards PM-WANI do not have a favourable and significant impact on their behavioural intention to utilise the service.

H₁: Users' attitudes toward PM-WANI have a positive and significant influence on their behavioral intentions to use the service.

Data collection and research instrument

To collect primary data, a standardized questionnaire with a seven-point scale was used. This was administered to 100 PM-WANI customers in Maharashtra's Jalgaon district. The respondents were asked to indicate their level of understanding on eight questions about attitude and behavioural intentions. The items were as follows.

Attitude

1. Using PM-WANI is a wise and beneficial decision.
2. I enjoy accessing the internet through public Wi-Fi services such as PM-WANI.
3. I believe PM-WANI plays an important role in building a smarter Digital India.
4. I feel comfortable and confident using PM-WANI on a regular basis.

Behavioral Intentions

1. I intend to continue using PM-WANI in the future.
2. I am likely to recommend PM-WANI to my friends and family.
3. I am willing to explore additional services offered through PM-WANI.
4. I prefer using PM-WANI over private internet services whenever it is available.

(Hundleby & Nunnally, 1994): Cronbach's Alpha, a widely known measure of internal consistency, was employed to assess the structured survey's reliability. Cronbach's Alpha values of 0.70 or higher are frequently used to indicate adequate dependability.

Table1: Reliability Statistics

Factor	Cronbach's Alpha	No of Items	Reliability Level
Attitude	0.798	4	Acceptable - Good
Behavioral Intention	0.9	4	Excellent

Both study constructs were subjected to reliability analysis. Cronbach's Alpha for the four-item Attitude scale was 0.798, indicating acceptable to good internal consistency. The Cronbach's Alpha for the Behavioral Intention scale (4 items) was 0.900, indicating high reliability. Both values exceeded the required threshold of 0.70 (Nunnally, 1978), hence the scales were deemed reliable for further research.

Data Analysis and Interpretation

The hypothesis was examined through performing Linear Regression tests on the means of both constructs.

Table 2: Descriptive Statistics and Correlation between Attitude and Behavioral Intention

Variable	M	SD	1	2
1. Behavioral Intention	5.99	1.03	—	.819***
2. Attitude	6.07	0.82	.819***	—

Note. N = 100. ***p < .001 (1-tailed).

Table 3: Simple Linear Regression Predicting Behavioral Intention from Attitude

Predictor	B	SE B	β	t	p
Constant	-0.256	0.446	—	-0.573	0.568
Attitude	1.031	0.073	0.819	14.13	<.001

Model summary. R = .819, R² = .671, Adjusted R² = .667, F (1, 98) = 199.65, p < .001, Durbin-Watson = 2.01. Dependent variable: Behavioral Intention.

Interpretation

Descriptive Statistics- The mean score for Behavioral Intentions was M = 5.99, SD = 1.03 (N = 100). This suggests that, on average, respondents showed a fairly high intention to use PM-WANI services. The mean score for Attitude was M = 6.07, SD = 0.82 (N = 100), indicating that respondents generally had a favorable attitude toward PM-WANI. **Correlation Analysis-** A Pearson correlation found a significant positive link between Attitude and Behavioural Intention (r=.819, p<.001r = .819, p < .001r=.819, p<.001, N = 100). This indicates that more favorable attitudes toward PM-WANI are strongly associated with higher behavioral intentions to adopt its services.

Regression Analysis

Model fit: R=.819R = .819R=.819, R2=.671R² = .671R2=.671, Adjusted R2=.667R² = .667R2=.667. This means that Attitude explains 67.1% of the variance in Behavioral Intention.

ANOVA: The regression model was significant, F (1,98) =199.65, p<.001F (1, 98) = 199.65, p < .001F (1,98) =199.65, p<.001.

Coefficients: Regression equation: Behavioral Intention = -0.256 + 1.031 × (Attitude) \ text { Behavioral Intention} = -0.256 + 1.031 \ times \ text { Attitude} Behavioral Intention = -0.256 + 1.031 × (Attitude). The slope was significant (B=1.031, SE=0.073, β=.819, t=14.13, p<.001B = 1.031, SE = 0.073, \ beta = .819, t = 14.13, p < .001 B=1.031, SE=0.073, β=.819, t=14.13, p<.001).

This shows that for every one-unit increase in Attitude, Behavioral Intention increases by approximately 1.03 units. Assumptions Check: Durbin-Watson = 2.008, indicating no autocorrelation of residuals. Residual statistics: Mean =

0.00, SD = 0.59; no major violations of normality or homoscedasticity were observed.

Thus, a simple linear regression was conducted to predict Behavioral Intention from Attitude. Results indicated that Attitude was a significant predictor, $B=1.031$, $SE=0.073$, $\beta=.819$, $t(98)=14.13$, $p<.001$, $B=1.031$, $SE=0.073$, $\beta=.819$, $t(98)=14.13$, $p<.001$. The model explained 67.1% of the variance in Behavioral Intention, $R^2=.671$, $F(1,98)=199.65$, $p<.001$, $R^2=.671$, $F(1,98)=199.65$, $p<.001$.

Conclusion

The current study examined the relationship between users' views about PM-WANI and their behavioural intentions to adopt and continue using the service. The reliability analysis showed adequate to outstanding internal consistency for both Attitude and Behavioural Intention. Correlation study found a high positive link between behavioural intention and user behaviour, accounting for 67.1% of the variance in users' behavioral intentions. These data demonstrate that positive perceptions of PM-WANI greatly influence users' desire to embrace, recommend, and use the platform. Thus, improving user attitudes through awareness campaigns, convenience of use, and promoting national initiatives such as Digital India are likely to reinforce behavioural intentions and increase adoption. The paper presents empirical evidence to justify the use of attitude-intention correlation in relation to public technological initiatives such as PM-WANI. The study shows that students do face several challenges when using digital banking. Female students are more concerned about security and technical problems. Male students find internet connectivity to be a bigger issue. In most other areas like app navigation and use of features both genders share similar experiences. These results suggest that while digital banking is widely used students still face issues that can be improved. Making apps simpler improving technical reliability and offering better guidance can help students use digital banking with more ease and confidence.

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