"A study on the relationship between perception and adoption of digital banking services with reference to working women of selected districts of Saurashtra Region"

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KEYWORDS	ABSTRACT
Digital Banking, Working Women, Adoption, Perception, Saurashtra, Financial Inclusion, Factor Analysis.	This research explores how working women in the Saurashtra region of Gujarat, India, perceive and adopt digital banking services, focusing on key factors like usefulness, ease of use, trust, and perceived risk. The study gathered responses from 250 participants through a structured questionnaire, employing non-probability convenience sampling. Data analysis involved factor analysis, correlation, and ANOVA techniques to uncover trends and insights. Results highlight that, while digital banking is widely regarded as convenient and efficient, challenges such as security concerns, lack of personal interaction, and technical barriers prevent its full acceptance. Factor analysis revealed two major themes: positive perceptions, such as convenience and security, which encourage adoption, and negative aspects, like concerns over fraud and discomfort, which act as deterrents. Differences in how benefits are perceived emerged across demographic groups, but concerns were consistently noted across the board. The findings provide practical recommendations for banks and policymakers to address these challenges, improve user trust, and enhance digital banking access for working women, ultimately promoting financial inclusion in the region.

1. INTRODUCTION

The financial sector has undergone a significant transformation with the emergence of digital banking, which has redefined how customers interact with financial institutions. Digital banking refers to a suite of financial services provided electronically through platforms such as mobile apps, internet banking, and automated teller machines (ATMs). These services include fund transfers, bill payments, loan applications, investment management, and account monitoring, all accessible anytime and anywhere (Agarwal et al., 2021). The increasing penetration of smartphones, enhanced internet connectivity, and demand for convenience have significantly contributed to the rapid adoption of digital banking.

Working women represent a critical demographic in society, balancing professional responsibilities and household financial management. Digital banking offers them flexibility and efficiency in managing their finances without requiring visits to physical bank branches. However, despite the evident advantages, the adoption of digital banking services by working women remains influenced by factors such as perceived usefulness, ease of use, trust, and associated risks (Davis, 1989; Singh et al., 2020).

This study focuses on the adoption of digital banking services among working women in the Saurashtra region of Gujarat, India, an area known for its cultural diversity and economic activities. While digital banking is considered a modern and efficient solution, barriers such as concerns over data security, privacy, limited personal interaction, and technical difficulties hinder its widespread acceptance (Kaur & Sharma, 2022).

To explore these dynamics, the study utilizes data collected from 250 working women through a structured questionnaire. It examines key dimensions like perceived usefulness, perceived ease of use, trust, and perceived risk in shaping the adoption of digital banking services. The research aims to offer actionable insights for banks and policymakers to design tailored strategies that address the unique needs and

preferences of working women in the Saurashtra region. These findings are expected to promote financial inclusion, enhance user satisfaction, and encourage digital banking adoption, ultimately bridging the digital divide in the region.

2. LITERATURE REVIEW:

Alalwan, A. A., Dwivedi, Y. K., & Rana, N. P. (2017) examined the factors influencing people's willingness to adopt digital banking in Jordan, focusing on behavioral and technological aspects. A survey of 343 individuals revealed that trust, ease of use, and usefulness were significant drivers of adoption. However, concerns about security emerged as a major obstacle, particularly among women, highlighting the need for robust, trustworthy platforms to encourage usage.

Meena, S., & Kumar, R. (2021) investigated how awareness campaigns impact digital banking adoption among women in semi-urban and rural areas. Using focus groups and surveys of 150 women, it found that localized campaigns, especially those incorporating regional languages, were effective in improving knowledge and increasing usage of digital banking. Enhanced awareness transformed how participants perceived these services, making them more likely to adopt them.

Yadav, R., Chauhan, S., & Pathak, G. S. (2020) explored the influence of security concerns on digital banking adoption in India. Data collected from 220 working women revealed that fears of data breaches and online fraud hindered usage. Interestingly, women with greater financial literacy were more likely to overcome these concerns, suggesting that knowledge can play a crucial role in boosting confidence in digital banking systems.

Venkatesh, V., & Bala, H. (2008) researched on expanding on the Technology Acceptance Model, this study proposed ways to improve technology adoption through user training and simplified designs. The findings emphasized that ease of use, well-structured interfaces, and effective training programs significantly increase adoption rates, particularly for working women who prioritize efficiency and accessibility in digital banking tools.

Sharma, P., Kaur, S., & Dhillon, R. (2019), focused on understanding the digital banking preferences of 250 urban working women. The study found that features offering convenience, such as quick money transfers and bill payments, were most valued. Accessibility and time-saving capabilities emerged as critical factors, with women preferring platforms that streamlined routine financial tasks.

Gupta, R., & Singh, A. (2021)investigated how socioeconomic factors affect the use of digital banking among 300 working women. Education and income were identified as the strongest predictors of adoption. Women in managerial roles demonstrated higher usage, likely due to their greater exposure to and familiarity with technology, which enhanced their trust in digital platforms.

Patil, M., Reddy, K., & Singh, N. (2022)evaluated the impact of digital infrastructure on the adoption of banking services in semi-urban areas. Surveys of 200 women revealed that improved smartphone access and banking apps in regional languages significantly encouraged usage. Women with limited digital skills were particularly drawn to platforms that were easy to use and tailored to their needs.

Kaur, R., Chopra, M., & Kumar, N. (2020)compared how men and women perceive risks in digital banking. Interviews with 100 participants showed that women were more concerned about fraud and technical failures. However, the introduction of security features like biometric authentication helped reduce their fears, encouraging more women to adopt digital banking services.

Chakraborty, S., & Pradhan, B. (2020)examined how cultural norms affect women's adoption of digital banking in different districts. Surveying 180 women, they found that adoption rates were higher in areas with greater gender equality and financial independence. The study highlighted the importance of cultural and societal support in promoting digital banking use among women.

Rani, S., & Thomas, K. (2021) assessed the effectiveness of digital literacy programs for working women. After participating in a training workshop, 100 women reported a significant increase in their confidence in using digital banking services. Adoption rates rose by 40%, underscoring the role of education in making financial technologies more accessible and user-friendly for women.

Kaur, B., & Batra, N. (2023) examined the key factors influencing women's adoption of digital banking in India. The researchers analyzed data from 180 participants using structural equation modeling (SEM). Their findings showed that factors like perceived usefulness, ease of use, and behavioral intention strongly impacted adoption decisions, while trust and perceived risks had minimal influence. The study underlines the importance of targeted awareness campaigns and enhanced security measures to overcome adoption barriers, especially in the context of India's post-demonetization financial landscape.

Igamo, A. M., Rachmat, R. A., Siregar, M. I., et al. (2024) investigated the factors shaping women's use of Fintech services in Indonesia during the post-Covid-19 period. Through a survey of 403 participants analyzed using PLS-SEM, they found that attitude played the most significant role in influencing behavioral intention, while the status quo mindset had a strong impact on actual usage. The study also emphasized the importance of government support and digital literacy programs in bridging urban-rural divides and advancing financial inclusion for women in Fintech ecosystems.

National Payments Corporation of India (NPCI) & Women's World Banking (2024) studied the challenges and opportunities for increasing women's participation in digital payments through the UPI for Her initiative. Using qualitative research and pilot programs across various regions, the study identified digital financial illiteracy and distrust as major barriers. Innovative solutions like Prepaid Payment Instruments (PPIs) and tailored UPI offerings effectively engaged two key user groups, Cautious Balancers and Fence Sitters. The report highlights the importance of personalized onboarding processes, gender-sensitive marketing, and ongoing user support to drive adoption and enhance women's financial inclusion.

3. OBJECTIVES:

- To identify the significant factors affecting the perception of working women towards adoption of Digital Banking Services.
- To identify the specific Digital Banking Services utilized by working women.
- To investigate the issues faced by working women during the use of digital banking services.
- To explore factors that would encourage greater adoption of digital banking services.
- To conduct a factor analysis to uncover the key elements that influence the adoption of digital banking services.

4. RESEARCH METHODOLOGY:

Research Design

The study employs a descriptive research design to explore and understand the factors influencing working women's perception and adoption of digital banking services in the Saurashtra region. This design is suitable for analyzing the perceptions, preferences, and challenges associated with digital banking services among this demographic.

Sampling Method

A non-probability convenience sampling method was used to collect data from 250 working women of selected districts (Junagadh, Rajkot, Porbandar & Gir Somnath) of Saurashtra region. This method ensures the accessibility and feasibility of reaching participants while maintaining a focus on the target demographic.

Data Collection

Data was collected through a structured questionnaire consisting of 14 close-ended questions to ensure consistency and ease of analysis. The questionnaire was divided into the following sections: Demographic Information, Perception Factors, Adoption of Digital Banking & Factors influencing Adoption.

Data Analysis Techniques

Data analysis was performed using SPSS software. To analyze the collected data; Factor Analysis, Correlation Analysis & ANOVA is used.

By adopting this research methodology, the study provides a robust framework to analyze and interpret the factors influencing digital banking adoption among working women.

5. DATA ANALYSIS & INTERPRETATION:

5.1 FREQUENCY

Demographics

Most respondents fall within the age group of 18–25 (49.2%), followed by 26–35 years (30.3%). , Nearly half (49.2%) have a postgraduate degree, while 28.3% hold a graduate-level qualification. A majority are employed in the private sector (52%), with a notable proportion identifying as self-employed (35%). The largest segment of respondents (37.8%) earns INR 20,000–40,000 monthly, closely followed by those earning less than INR 20,000 (37.4%). Participants are primarily based in Rajkot (40.6%) and Junagadh (37%).

Digital Banking Usage and Perceptions

A significant number of respondents believe digital banking offers faster transaction speeds (47.6% strongly agree) and the convenience to perform transactions at any time (46.9% strongly agree). Many agree that digital banking enhances account management (38.6% agree, 37% strongly agree). Digital banking is seen as more convenient than traditional in-person banking by 42.1% of respondents, who strongly agree with this sentiment. Similarly, 42.5% strongly agree that learning to use digital banking services is straightforward. While 35% agree that digital banking systems have strong security measures, concerns about fraud remain prevalent, with 28.3% agreeing and 24.4% strongly agreeing that there are risks of vulnerabilities. Some respondents express discomfort with the lack of human interaction in digital banking, with 29.1% strongly agreeing that this aspect makes them uneasy.

Banking Preferences

The most commonly used bank among respondents is the State Bank of India (42.1%), followed by HDFC Bank (26%). Other banks have a smaller share. The majority use UPI (80.7%) and mobile banking apps (71.7%), with fewer relying on internet banking (57.9%) or e-wallets (32.3%). Daily users of digital banking form the largest group (39%). The most frequent activities include mobile recharges (78.3%), bill payments (76%), and online shopping (74.4%).

5.2 FACTOR ANALYSIS

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.940
Bartlett's Test of Sphericity	Approx. Chi-Square	2868.859
	df	66
	Sig.	0.000

Table 1 (source: SPSS generated output)

In order to understand the perceptions and adoption of digital banking among working women in the Saurashtra region, **Principal Component Analysis (PCA)** was employed. The **Kaiser-Meyer-Olkin (KMO) measure** of sampling adequacy yielded a value of **0.94**, indicating that the data was highly suitable for factor analysis. Furthermore, **Bartlett's Test of Sphericity** was found to be **significant (Chi-Square = 2868.859, Sig. = 0.000)**, confirming that there are meaningful relationships among the variables, justifying the use of PCA.

	Rotated Component Matrix[a]		Component Matrix[a]	
	Component		Component	
	1	2	1	2
Digital banking allows me to complete banking transactions faster	.898		.856	
Digital banking provides the flexibility to perform financial transactions at any time of the day	.912		.857	
Digital banking helps me manage my bank account(s) more effectively	.879		.890	
Using digital banking is more convenient than making in-person visits to a bank	.886		.861	
Learning to operate digital banking services is easy and saves time	.827		.847	
Digital banking provides better control over my financial transactions	.844		.878	
I believe the online banking system uses robust and	.801		.880	

efficient security measures				
I feel that online banking offers multiple backup and savings options	.749		.860	
I think online banking delivers effective and essential services	.794		.856	
Online banking lacks social interaction		.807	.658	.582
I feel vulnerable to financial fraud while conducting transactions		.836	.625	.629
I experience discomfort when using digital banking services		.915		.824

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 3 iterations.

Table 2 (source: SPSS generated output)

Two distinct factors were extracted, which together accounted for **78.77%** of the total variance. The first component, which explained **64.32%** of the variance, captures the positive perceptions of digital banking, including its **convenience, speed, flexibility, and control**. The second component, explaining **14.45%** of the variance, highlights the concerns related to digital banking, such as **discomfort, vulnerability to fraud, and the lack of social interaction**.

The Rotated Component Matrix, based on Varimax rotation, revealed the following key associations:

- **Component 1:** Strong loadings were observed for variables associated with the **perceived** benefits **of digital banking** (e.g., speed, flexibility, control, and security), with loadings ranging from **0.801 to 0.912.**

- **Component 2:** The second component had high loadings on variables linked to **perceived concerns about digital banking** (e.g., discomfort, security concerns, and lack of social interaction), with loadings between **0.582 and 0.915**.

These results indicate that working women in the Saurashtra region view digital banking as offering clear benefits, such as convenience and security, while also expressing concerns related to its emotional and security aspects. These dual perceptions may influence their overall adoption and use of digital banking services.

5.3 CORRELATION

The correlation matrix sheds light on the connection between working women's perceptions of digital banking and how frequently they use these services. Notable negative correlations were observed for attributes such as transaction speed ($r = -0.219$), flexibility ($r = -0.181$), and ease of use ($r = -0.303$). This suggests that frequent users may take these advantages for granted, viewing them as routine rather than extraordinary benefits.

Security concerns ($r = -0.133$) and discomfort while using digital banking ($r = -0.123$) showed weaker negative correlations. This indicates that as women use digital banking more often, their concerns about safety and usability tend to diminish. However, some users still experience slight unease, highlighting the importance of educating them about the robust security measures in place.

Overall, the findings suggest that frequent users develop a sense of familiarity that reduces the perceived novelty of digital banking's features—a phenomenon often referred to as the "habituation effect." On the other hand, occasional users may benefit from targeted initiatives that address concerns related to security, simplicity, and emotional confidence. To encourage broader adoption among working women in the Saurashtra region, banks should focus on introducing innovative features and creating more personalized engagement strategies.

5.4 ANOVA

Ho: There is no significant difference in perceptions of digital banking among working women across different age groups ($\mu_1 = \mu_2$)

H1: There is a significant difference in perceptions of digital banking among working women across

different age groups ($\mu_1 \neq \mu_2$)

	P value	Significant
Digital banking allows me to complete banking transactions faster	.000	Yes
Digital banking provides the flexibility to perform financial transactions at any time of the day	.005	Yes
Digital banking helps me manage my bank account(s) more effectively	.001	Yes
Using digital banking is more convenient than making in-person visits to a bank	.000	Yes
Learning to operate digital banking services is easy and saves time	.002	Yes
Digital banking provides better control over my financial transactions	.003	Yes
I believe the online banking system uses robust and efficient security measures	.000	Yes
I feel that online banking offers multiple backup and savings options	.000	Yes
I think online banking delivers effective and essential services	.000	Yes
Online banking lacks social interaction	.150	No
I feel vulnerable to financial fraud while conducting transactions	.170	No
I experience discomfort when using digital banking services	.255	No

Significant Results (P < 0.05)

The analysis revealed significant differences in perceptions of the benefits of digital banking across age groups. These benefits include: Speed, Flexibility, Ease of Use, Control, Security & Backup and Savings Options. This indicates that women in different age groups view these aspects of digital banking differently, with their perceptions varying based on their age.

Non-Significant Results (p > 0.05)

No significant differences were found in perceptions related to: Lack of Social Interaction, Vulnerability to Financial Fraud & Discomfort.

These findings suggest that these concerns are consistent across all age groups, regardless of how women of varying ages perceive other aspects of digital banking.

6. RESULT & FINDINGS:

The study revealed several important findings regarding the adoption and perception of digital banking among working women in the Saurashtra region. Demographically, the majority of respondents were aged 18–25 (49.2%), followed by 26–35 (30.3%), with nearly half holding postgraduate degrees (49.2%). Most respondents were employed in the private sector (52%) or self-employed (35%), with income levels predominantly in the INR 20,000–40,000 range (37.8%). Geographically, participants were mainly from Rajkot (40.6%) and Junagadh (37%).

In terms of digital banking usage, UPI (80.7%) and mobile banking apps (71.7%) emerged as the most popular platforms, with frequent activities including mobile recharges (78.3%), bill payments (76%), and online shopping (74.4%). Daily users formed the largest segment at 39%. Perception analysis using factor analysis identified two key dimensions. The first dimension, positive perceptions, included attributes such as convenience, speed, flexibility, and security, explaining 64.32% of the variance. The second dimension, concerns, highlighted issues like fraud vulnerability, discomfort, and lack of social interaction, accounting for 14.45% of the variance.

Correlation analysis indicated a habituation effect among frequent users, where the perceived novelty of features such as speed and flexibility diminished over time. At the same time, weak negative correlations suggested that increased usage reduced concerns about safety and usability. ANOVA results revealed

significant differences in perceptions of benefits like speed, flexibility, and ease of use across age groups. However, concerns such as fraud vulnerability and lack of social interaction showed no significant variation, indicating their consistency across demographics.

These findings highlight the dual nature of perceptions—positive attributes versus persistent concerns—and provide actionable insights for enhancing digital banking adoption.

7. CONCLUSION

This study sheds light on the adoption and perception of digital banking services among working women in the Saurashtra region. Digital banking is generally viewed positively for its convenience, flexibility, and efficiency, with platforms such as UPI and mobile banking apps being the most widely used. Activities like mobile recharges, bill payments, and online shopping are the primary uses of digital banking services among the respondents. Despite these benefits, concerns related to security, fraud risks, and the lack of personal interaction continue to hinder wider adoption.

The analysis identified two main factors influencing digital banking adoption. The first factor consists of **positive perceptions**, including the ease of use, speed, and security, which encourage adoption. The second factor involves **concerns**, such as fears of fraud and the impersonal nature of digital banking, which reduce its appeal. The correlation analysis revealed that frequent users tend to take the features of digital banking for granted over time, diminishing their perception of its novelty. ANOVA results highlighted differences in perceptions across age groups, particularly in terms of the benefits of digital banking, though concerns remained consistent across different age ranges.

For banks and policymakers, these findings suggest that addressing security concerns and providing clearer communication about digital banking's safety measures is essential for increasing adoption. Additionally, offering personalized engagement and education could help alleviate concerns and build user confidence. Overall, the study emphasizes the need for digital banking services to be more inclusive and accessible, particularly for working women. Future research could broaden the scope to include a more diverse set of users and geographic locations, allowing for a more comprehensive understanding of the factors that influence digital banking adoption.

REFERENCES:

Paper/Article

1. Alalwan, A. A., Dwivedi, Y. K., & Rana, N. P. (2017). Factors influencing adoption of digital banking: Evidence from Jordan. International Journal of Bank Marketing, 35(2), 206-225.
2. Meena, S., & Kumar, R. (2021). Role of awareness in digital banking adoption among women. Journal of Financial Studies, 48(3), 143-156.
3. Yadav, R., Chauhan, S., & Pathak, G. S. (2020). Security concerns in digital banking adoption: Evidence from India. Journal of Banking and Finance, 24(6), 234-246.
4. Venkatesh, V., & Bala, H. (2008). Technology Acceptance Model 3 and a research agenda on interventions. Decision Sciences, 39(2), 273-315.
5. Sharma, P., Kaur, S., & Dhillon, R. (2019). Digital banking preferences among working women: A case study. Asian Journal of Management, 10(4), 367-374.
6. Gupta, R., & Singh, A. (2021). Socioeconomic determinants of digital banking adoption. Indian Journal of Economics and Development, 47(2), 191-199.
7. Patil, M., Reddy, K., & Singh, N. (2022). Role of infrastructure in digital banking adoption in semi-urban India. Journal of Regional Development, 52(1), 87-95.
8. Kaur, R., Chopra, M., & Kumar, N. (2020). Risk perception in digital banking: A gendered perspective. International Review of Economics, 68(4), 215-229.
9. Chakraborty, S., & Pradhan, B. (2020). Cultural factors in digital banking adoption among women. Journal of Culture and Technology, 11(3), 101-118.
10. Rani, S., & Thomas, K. (2021). Digital literacy and banking adoption: Evidence from women-centric interventions. Women in Management Review, 36(5), 234-246.
11. Kaur, B., & Batra, N. (2023). Factors influencing women's adoption of digital banking in India: An empirical analysis. Journal of Financial Technology Studies, 12(4), 45–59.
12. Igamo, A. M., Rachmat, R. A., & Siregar, M. I. (2024). Women's adoption of Fintech services in Indonesia: Post-Covid-19 era perspectives. International Journal of Fintech Research, 9(1), 23–40.

13. National Payments Corporation of India (NPCI) & Women's World Banking. (2024). Enabling digital payments for women in India: Insights from the UPI for Her initiative. NPCI & Women's World Banking.

14. Agarwal, R., Gable, M., & Tansley, C. (2021). Digital banking and its impact on customer behavior. Journal of Financial Services Marketing, 26(1), 45-58.

15. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13(3), 319-340.

16. Kaur, H., & Sharma, R. (2022). Challenges and opportunities in digital banking adoption in rural India. International Journal of Financial Studies, 10(3), 22-39.

17. Singh, P., Sharma, S., & Mehta, K. (2020). Factors influencing digital banking adoption in India: A study of working women. Journal of Indian Business Research, 12(4), 315-332.

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