

Deceptive Practices in Digital Transactions: A Case Study of Tribal Areas

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ABSTRACT

This study investigates deceptive practices in digital transactions within tribal populations in Udaipur and Sirohi districts, Rajasthan. As digital technologies become more prevalent, tribal communities are increasingly vulnerable to various forms of digital fraud, including phishing, identity theft, and fraudulent online activities. The research aims to identify the most common deceptive practices affecting these populations and explore how these practices impact the adoption and usage of digital technologies. Additionally, the study examines the role of digital literacy and awareness in mitigating the risks of digital fraud. By assessing the correlation between tribal digitalization and the patterns of digital fraud, the research aims to determine the significance of digitalization in shaping fraud patterns. The findings aim to provide recommendations for improving digital literacy, increasing awareness, and enhancing the safety of digital transactions within tribal areas, thereby fostering a more secure and inclusive digital environment for these communities.

Keywords: Digitization, Economic Development, Deceptive Practices

Introduction

The rapid growth of digitalization has brought transformative changes across various sectors, enabling convenience and efficiency in transactions and communication. However, with this advancement comes an alarming rise in deceptive practices, particularly in digital transactions. These fraudulent activities exploit gaps in awareness, infrastructure, and trust, often targeting vulnerable populations, including tribal communities.

Tribal areas, often characterized by limited digital literacy, socioeconomic challenges, and restricted access to technology, are becoming hotspots for digital fraud. The lack of robust

digital infrastructure, coupled with inadequate exposure to online platforms, makes tribal populations susceptible to phishing scams, identity theft, fraudulent loan schemes, and social engineering tactics. This scenario not only exacerbates financial vulnerabilities but also erodes trust in digital platforms, hindering the potential benefits of digital inclusion.

This study aims to explore the prevalence and nature of deceptive practices in digital transactions within tribal areas. By examining the socio-cultural and economic factors influencing fraud susceptibility, the paper seeks to identify the key challenges faced by these communities. Furthermore, the research underscores the

importance of targeted interventions, including digital literacy programs and secure technology implementations, to mitigate risks and foster safe digital participation among tribal populations.

Through a comprehensive case study approach, this research work helps in understanding the intersection of digitalization and fraud in tribal regions, highlighting both the challenges and opportunities for creating a safer digital ecosystem.

Literature Review

Ahir and Jain (2024) delve into the impact of digital finance on rural economies, finding that digital platforms have played a crucial role in revitalizing rural areas by improving access to financial services. At the same time, they identify an increase in digital scams and fraudulent practices targeting rural populations. The authors stress the importance of addressing these challenges by implementing targeted digital literacy initiatives and enhancing cybersecurity awareness in tribal and rural communities.

Manjunath et al. (2024) analyze the rise in cybercrimes across rural India following the widespread adoption of digital platforms for banking and related services. They find that the rapid shift toward digital systems has been accompanied by an increase in cyber frauds, including identity theft and fraudulent online transactions. The study highlights insufficient user awareness about digital security and the lack of a robust cybersecurity framework as major contributors to the vulnerability of rural populations, calling for strengthened digital literacy programs and regulatory measures.

Saini and Nirolia (2024) focus on the role of digitalization in driving economic growth in rural and tribal regions of India. Their research demonstrates that digital tools have expanded access to critical services like banking, education, and healthcare. However, they also caution

against the growing risks of cyber fraud associated with these advancements. The authors advocate for a holistic approach to digitalization, combining technological progress with effective cybersecurity measures and awareness campaigns to protect rural communities from online scams.

Agarwal (2024) explores the economic benefits of digital payments in India, emphasizing their role in promoting financial inclusion and driving economic development. However, the study also highlights the risks posed by the reliance on digital financial systems, particularly in rural areas where knowledge of online security practices remains limited. Agarwal calls for robust cybersecurity policies and comprehensive digital education programs to safeguard users in these regions from the rising threat of cyber fraud.

Sun (2024) investigates the potential of digital technologies to foster rural economic growth, particularly through digital finance. The research highlights the dual impact of digital tools, which, while unlocking economic opportunities, also increase exposure to cyber risks. Sun emphasizes the need for a balanced approach that leverages the benefits of digital finance while protecting users from fraud through comprehensive cybersecurity measures and education campaigns.

Xia and Kong (2024) examine the role of inclusive digital finance in promoting rural development. Their findings show that digital financial systems have significantly contributed to economic growth in rural areas but have also introduced challenges, particularly the rising incidence of cyber fraud. The authors argue for an integrated approach to digital inclusion, combining financial accessibility with enhanced security measures and user education to mitigate risks and protect vulnerable populations from digital threats.

Pattanayak et al. (2016) examine the transformative effects of digital platforms on rural and tribal economies, highlighting both opportunities and challenges. Their study reveals that while digital tools enhance access to essential services like financial inclusion and education, they also expose vulnerable groups to cyber threats such as phishing, carding, and spoofing. The authors underscore the dual nature of digitalization, pointing out that limited awareness of cybersecurity in rural areas significantly hampers the potential benefits of digital adoption.

Research Methodology

The study aims to examine the relationship between digitization and digital fraud patterns among the tribal population in Udaipur & Sirohi districts, with a sample size of 400 respondents. This sample size was chosen to provide a comprehensive and representative view of the tribal communities, capturing a diverse range of experiences and perspectives regarding digital fraud in these regions. To achieve this, a convenience sampling technique was used, where respondents were selected based on their accessibility and willingness to participate. This non-probability sampling method allowed the researcher to efficiently gather data from a diverse group of individuals while considering practical constraints such as time and geographical limitations.

Respondents were selected from various tribal regions across Udaipur and Sirohi districts, ensuring demographic diversity in terms of gender, occupation, and exposure to digital technologies. The sample consisted of individuals engaged in a range of occupations, including small businesses, agriculture, government jobs, and daily wage labor, among others. This varied selection ensured that the study would capture a wide spectrum of experiences related to digital engagement and

fraud. Data collection was conducted using structured surveys and interviews designed to gather both qualitative and quantitative insights. The survey focused on respondents' digital literacy, usage of digital platforms, and any incidents of digital fraud they may have encountered. The combination of these methods allowed for a comprehensive analysis of the challenges and opportunities digitalization presents to tribal communities in Udaipur and Sirohi districts.

Objective

1. To identify the common types of deceptive practices in digital transactions affecting tribal populations.
2. Analyse the impact of deceptive practices on the adoption and usage of digital technologies within the community.
3. To analyse the role of digital literacy and awareness levels in mitigating the risks of digital fraud in tribal areas.

Hypothesis

H₀1: Tribal digitalization has no significant association with patterns of digital fraud in tribal areas.

H_a1: Tribal digitalization is significantly associated with patterns of digital fraud in tribal areas.

Data Analysis & Interpretation

Respondents' classification based on gender

The gender distribution indicates that 77.5% of respondents are male and 22.5% are female, revealing a significant gender imbalance in digital participation within the tribal areas of Rajasthan. The imbalance in gender representation may be attributed to several factors, including limited access to technology and the internet for women in tribal areas, lower

levels of digital literacy among females, cultural norms that restrict women's mobility and participation in digital activities, and economic barriers that prioritize male engagement in digital platforms. Additionally, the lack of targeted initiatives to address gender disparities in digital education and infrastructure may further exacerbate the imbalance

Respondents' classification based on

occupation

A significant portion of respondents (38.8%) are involved in small businesses, followed by 29.8% engaged in agriculture and 15.3% working in government jobs. A smaller group (11.3%) is employed as daily wage labourers. These results suggest that small businesses and agriculture are the dominant occupations in tribal areas, making these sectors crucial targets for digital initiatives and economic growth strategies.

Table 4.1

Familiar with the Digital India Initiative					
		No. of Respondents	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	Very Low	42	10.5	10.5	10.5
	Low	64	16.0	16.0	26.5
	Medium	42	10.5	10.5	37.0
	High	126	31.5	31.5	68.5
	Very High	126	31.5	31.5	100.0
	Total	400	100.0	100.0	

Table 4.2

Awareness of deceptive practices, such as online frauds or scams, in the community					
		No. of Respondents	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	Very Low	46	11.5	11.5	11.5
	Low	116	29.0	29.0	40.5
	Medium	24	6.0	6.0	46.5
	High	71	17.8	17.8	64.3
	Very High	143	35.8	35.8	100.0
	Total	400	100.0	100.0	

Awareness of the Digital India Initiative

The awareness of the Digital India Initiative among the respondents varies significantly. 31.5% reported high awareness, and 31.5% indicated very high awareness, reflecting strong recognition in the sample. However, 16% had low awareness, and 10.5% had very low awareness, showing gaps in familiarity. Only 10.5% of respondents reported medium awareness. These findings suggest that while many are aware of the initiative, targeted efforts are needed to raise awareness among those with lower familiarity, particularly in rural and tribal areas.

The data indicates varied levels of awareness regarding deceptive practices such as online frauds or scams in the community. A substantial portion, 35.8%, reported very high awareness, while 17.8% had high awareness, showing that more than half of the respondents are well-informed. However, 29.0% of respondents reported low awareness, and 11.5% had very low awareness, indicating a significant lack of understanding among some community members. Only 6.0% of respondents reported a medium level of awareness. These findings highlight a disparity in awareness levels,

Table 4.3

Fraudulent phone calls and messages asking for personal information					
		No. of Respondents	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	Very Low	47	11.8	11.8	11.8
	Medium	139	34.8	34.8	46.5
	High	142	35.5	35.5	82.0
	Very High	72	18.0	18.0	100.0
	Total	400	100.0	100.0	

Table 4.4

Deceptive practices have negatively impacted the adoption of digital technologies in community					
		No. of Respondents	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	Very Low	23	5.8	5.8	5.8
	Low	93	23.3	23.3	29.0
	Medium	70	17.5	17.5	46.5
	High	72	18.0	18.0	64.5
	Very High	142	35.5	35.5	100.0
	Total	400	100.0	100.0	

suggesting the need for targeted educational campaigns to address the gaps, particularly among those with low or very low familiarity.

Fraudulent Phone Calls and Messages

18% of respondents strongly agreed that fraudulent phone calls and messages requesting personal information or money are common in their area. Additionally, 35.5% expressed high agreement with this concern. In contrast, 11.8% showed very low agreement, indicating a smaller group perceives this issue as less prevalent.

Deceptive Practices Impact

The data shows that deceptive practices significantly impact digital technology adoption in the community. 35.5% of respondents reported a very high impact, and 18.0% indicated a high impact, reflecting widespread concern. Meanwhile, 23.3% reported a low impact, and 5.8% indicated a very low impact, suggesting minimal influence for a smaller group. 17.5% rated the impact as medium, showing moderate concern. Overall, deceptive practices are a key barrier to digital adoption for many.

Hypothesis Testing Results

H₀1: Tribal digitalization has no significant association with patterns of digital fraud in tribal areas.

H_a1: Tribal digitalization is significantly associated with patterns of digital fraud in tribal areas.

The crosstabulation analysis between tribal digitalization and patterns of digital fraud (Table 4.56) revealed no statistically significant relationship. The Chi-Square test results show a Pearson Chi-Square value of 2.938 with 16 degrees of freedom and an asymptotic significance level of 1.000, which is well above the conventional threshold of 0.05 for significance. This high p-value indicates that the observed variations in fraud patterns across tribal digitalization levels are likely due to chance rather than any systematic association. The likelihood ratio test also yielded a significance value of 1.000, further supporting the conclusion that no meaningful relationship exists. Similarly, the linear-by-linear association statistic (0.137, $p = 0.712$) reinforces the lack of correlation.

Table 4.5

TSP Area and Fraud Pattern: Crosstabulation							
		Fraud Pattern					Total
		Very Low	Low	Medium	High	Very High	
TSP Area	Gogunda	6	16	13	23	22	80
	Pindwara	7	17	10	21	25	80
	Abu Road	9	14	12	22	23	80
	Jhadol	8	15	9	21	27	80
	Kherwara	6	16	11	22	25	80
Total		36	78	55	109	122	400

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.938 ^a	16	1.000
Likelihood Ratio	2.932	16	1.000
Linear-by-Linear Association	.137	1	.712
N of Valid Cases	400		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.20.			

These results lead to the acceptance of the null hypothesis (H01), indicating that tribal digitalization and patterns of digital fraud in the studied tribal areas of Udaipur and Sirohi districts, are not associated. This suggests that digital fraud patterns are not significantly influenced by the extent of digitalization within these communities.

Conclusion

This study explores the impact of deceptive practices on digital transactions in tribal areas, focusing on the relationship between digitalization and digital fraud patterns. Analysing data from 400 respondents across Udaipur and Sirohi, tribal regions, the research highlights that while digital technologies offer significant opportunities, they also expose communities to risks such as phishing, fraudulent calls, and online scams. The findings reveal no statistically significant association between the level of digital adoption and the prevalence of fraud, suggesting that other factors, such as education, awareness, and cybersecurity measures, play a critical role. The study underscores the urgent need for targeted initiatives to enhance digital literacy, strengthen regulatory frameworks, and build trust in digital platforms. By addressing these challenges, policymakers can foster safe and inclusive digital

participation for tribal communities.

References

- Agarwal, A. (2024). Digital payments and their impact on the Indian economy. <https://doi.org/10.13140/RG.2.2.29093.10723>.
- Ahir, R., & Jain, J. (2024). Impact of digitalization on rural India. *International Journal of Research and Innovation in Social Science*, 8(VIII), 426-432. <https://doi.org/10.47772/IJRISS.2024.809037>.
- Government of India. (2017). Online banking fraud cases reported in 2017. LiveMint. Retrieved from www.livemint.com.
- Manjunath, M., & Dr. S. (2024). A study on cyber frauds post digitalization in India. *International Journal for Research in Applied Science and Engineering Technology*, 12, 1790-1806. <https://doi.org/10.22214/ijraset.2024.60191>.
- Parmanand, R. A. K. (2024). A study on cyber fraud threatening digital India users. *International Journal of Research and Analysis in Commerce and Management*, 3(2), 1-6.
- Pattanayak, D., Dixit, D. S., Antony, K., & others. (2016). Research on digitalization and

its impact in rural economies. Indian Institute of Management Bangalore. Retrieved from <https://www.iimb.ac.in/research/sites/default/files>.

- Saini, R., & Nirolia, M. (2024). Impact of digitalization in the growth of the Indian economy. *International Journal of Research in Applied Science and Engineering Technology*, 29, 152-158.
- Sun, W. (2024). The impact and opportunities of digital economy on rural revitalization. *International Journal of Education and Humanities*, 14, 134-139. <https://doi.org/10.54097/0k1nfg61>.
- Xia, D., & Kong, C.-L. (2024). The impact of digital inclusive finance on rural revitalization. *Journal of Organizational and End User Computing*, 36, 1-18. <https://doi.org/10.4018/JOEUC.337970>.