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A STUDY ON DIGITAL PAYMENT USAGES IN RURAL AREAS

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ABSTRACT

The Digital India project and the subsequent fast development of digital technology have had a profound impact on India's financial scene. Still, there are a lot of socioeconomic and infrastructure barriers that need to be addressed before digital payment systems can be widely used in rural regions. The goals of this study are to (1) determine how widespread the use of digital payment methods is in rural areas, (2) determine what variables significantly impact adoption, and (3) investigate the obstacles that prevent their efficient use. In order to examine rural people's digital platform use, knowledge, accessibility, and trust, the study uses primary and secondary data sources. Although there has been some early acceptance encouraged by government-led financial inclusion programs and smartphone penetration, problems including digital illiteracy, slow internet connections, and security concerns are still limiting mainstream usage, according to the findings. In order to foster equitable financial growth and close the digital divide between rural and urban areas, the report recommends more focused awareness efforts, better digital infrastructure, and user-friendly platforms.

INTRODUCTION

A digital payment, often referred to as an electronic payment, is the transfer of funds between payment accounts using a digital platform or device.

This idea includes contactless payments, cryptocurrencies, bank transfers, mobile money or wallets, QR codes, and payment instruments including credit, debit, and prepaid cards. These payments may be totally digital, primarily digital, or somewhat digital, depending on the degree of digital engagement. Definition: A digital payment, often referred to as an electronic payment, is the transfer of funds between payment accounts using a digital platform or device. This idea includes contactless payments, cryptocurrencies, bank transfers, mobile money or wallets, QR codes, and payment instruments including credit, debit, and prepaid cards. These payments may be totally digital, primarily digital, or somewhat digital, depending on the degree of digital engagement. A smooth transaction is ensured by the harmonious cooperation of several intermediaries in the digital payment ecosystem. The customer (sender of money), the financial institution, the payment network, and the merchant (payee) are the parties that handle a digital payment transaction from beginning to end.

The material that follows explains how digital payments operate .Initiation: The transaction is started by the payer, or the individual completing the payment.

Authentication: To guarantee the transaction's security,
the payer could be asked to provide authentication. This might entail supplying a security code, using biometric traits like fingerprint or face recognition, or entering a PIN.

Data encryption: To guard against unwanted access during transmission, sensitive data is encrypted once the payment has been started and approved.

Payment Processing: The encrypted payment information is sent to a payment processor or gateway. This organization confirms the payer's information, looks for available money, and makes sure the transaction conforms with security guidelines.

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Authorization: After confirming the payment information, the payment processor asks for permission to deduct the designated amount from the payer's financial institution (bank or credit card issuer).

Money Transfer: The money is moved from the payer's account to the payee's account if the permission is approved. This procedure may involve the use of intermediaries such as banks, clearinghouses, and payment networks.

communication: Both the payer and the payee frequently get a communication confirming the successful completion of the transaction.

Maintaining Records: An electronic record of the transaction is kept, offering a payment history that can be tracked.
Last Settlement: A final settlement may occur later, especially if complicated financial systems or batch processing are involved. But often, the payee may get the money right away.

Additionally, digital payments give the payee the potential to collect client data for market segmentation and data research. In order to improve customer acquisition and retention through customized marketing campaigns and promotions, this enables shops and issuing banks to use digital payments in tandem with loyalty and reward programs.

NEED FOR THE STUDY

The importance of digital finance in fostering financial inclusion, economic expansion, and closing the digital gap between urban and rural communities makes research on the use of digital payments in rural areas imperative. Although the quick development of digital payments gives many chances to increase financial access in rural areas, there are drawbacks as well that must be recognized and resolved for maximum effect. With limited access to traditional banking infrastructure, a sizable section of the rural population—particularly in emerging nations—remains unbanked or underbanked.

SCOPE OF THE STUDY

This study's focus on digital payments in rural areas covers a broad variety of variables that affect the uptake, application, and consequences of digital financial services in these places. The research intends to present a thorough examination of the ways in which digital payment platforms are changing rural economies, the obstacles that these platforms present, and the ways in which different stakeholders may help create a financial ecosystem that is more inclusive. The scope of the study is limited to the respondents of the selected rural areas.

OBJECTIVES OF THE STUDY

- To study about the digital payments
- To identify the key barriers to digital payment adoptions
- To analyse the adoption of digital payments in selected rural areas
- To investigate the role of Digital Payment in Enhancing Financial Inclusion

RESEARCH METHODOLOGY

To accomplish the goals that have been established, the research technique that will be used for the study on Digital Payment usages in Rural Areas will consist of a mix of qualitative and quantitative methodologies.
The data is collected from the Primary Source of Data and Secondary Source of Data.

Primary Data : The data is collected from the primary source through structured Questionnaire and Observations
Research Design: Exploratory Design
Sampling Design: Convenience Sampling
Sampling Procedure: Simple Random Sampling
Sample Size: 144
Tool for Analysis: Structured Questionnaire

Secondary Data: The data is collected from the various secondary sources like Textbooks, Journals, Websites etc.

LIMITATIONS OF THE STUDY

Time is the major limitations of the study
The study is made on the selected sample which may not influence in all areas of the study

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The analysis is made on the selected questions based on the objectives of the study
The analysis may or may not provide accurate results for decision making

LITERATURE REVIEW

A study on penetration of digital payment system in selected rural areas of prayagraj by shrish kumar tiwari, farah farooqu (2022)i: Money has always played a central role in the global economy, and India is no exception. The announcement of demonetization and subsequent epidemic served as a catalyst in India's transition from a cash-based to a cashless economy, which coincides with the paradigm change brought about by the rise of online banking and shopping. Real change may happen in India if the rural populace learns about digital payment, as that's where the country's heart resides. The study concluded that respondents' age and education level significantly correlate with their knowledge of digital fraud. In addition to demographic and awareness status, the study aims to analyze the change in customers' thinking regarding digital transactions during and after the COVID-19 period. It investigates rural areas of five blocks in the district of Prayagraj Rural Areas Redefinition by Osman İnan, Sema Konyalı, (Sep 2021): Agricultural and non-agricultural job creation, income inequality and growth, and youth and women's empowerment via education and entrepreneurship are all components of rural development. On the flip side, the state coordinates amongst governmental entities and plans rural development programs, initiatives, and activities to accomplish this. Afterwards, it was believed that the Regulation on Rural Neighborhood and Rural Residential Area would address the practical issues, as stated in the Official Gazette dated 15.04.2021, with the number 31455. Problems with service delivery to rural regions, unclear rules pertaining to rural areas, and ambiguous definitions of rural areas are all addressed in this paper.

Planning In Rural Areas by Alan J Hahn, (1970): Rural planning is frequently unsuccessful, despite the growing importance of such efforts. Planners and rural organizations do not communicate well, which is at least partially to blame. Planners must take into account a community's location on a continuum from totally rural to almost urban, as these conditions change as rural areas become urban. Furthermore, effective planning in rural areas may be hindered by many misconceptions about rural conditions, problems, and people.

A study on awareness of women policies in rural areas by Dr. Rashmi Rani Agnihotri, (Aug 2022): This article explores the overall situation of rural Indian women, as well as their awareness of and response to women's policies in rural regions. The role of women is crucial in Indian society. To improve rural livelihoods and general well-being, provide food and nutrition security for homes and communities, and earn an income, rural women are indispensable. Local and global economies rely on their contributions to agriculture and rural enterprises. All of the relevant data on Women's Empowerment Policies and its constituent parts were culled from relevant books, journals, and online resources. A policy on women's awareness in rural regions is the focus of the researcher's investigation. Part I: Background Information and Part II: Research Techniques Section III: Policies Targeting Indian Women IV. Wrapping Up, etc.

Hidden Champions: A Study on Recruiting Top-Level Staff in Rural Areas by Andrea Mueller, Sarah Feige, (2019): Staff at the highest level tend to gravitate toward cities that provide ideal social infrastructure. Excellent enterprises ("hidden champions") in rural regions often face this challenge: they may offer the services that qualified candidates value in their everyday lives, but they fail to attract them due to insufficient presentation of crucial details on social media or the corporate website.

A Study of the Self-Organizing Capacity on Computer Use in Rural Areas by Chengliang Zhang, Xiao-Yv Zhou, (Dec 2014): Problems with the effectiveness of computer services in rural regions and computer usage instruction for peasants exist in modern society, even if people in rural areas are no longer strangers to computers. It does this by combining a macro-level sampling questionnaire survey with a micro-level observational interview and regular evaluation. It analyses the level of media awareness and consumption in different places and periods based on data acquired from ongoing evaluations. Computer usage education in rural regions is characterized by a focus on self-construction and interpersonal contact, according to this study. To achieve this goal, it is necessary to implement a multi-level organizational structure that will empower the peasants to use their right to free speech via computer networks, therefore enhancing their capacity to take the lead in social progress

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DATA ANALYSIS

Chi Square Test

Hypothesis – 1

H0: There is no significance relation between the Gender and usage of digital platform

H1: There is a significance relation between the Gender and usage of digital platform

Observed Values

Gender/Frequency of usage	Daily	Weekly	Monthly	Rarely	Total
Male	49	21	12	3	85
Female	32	16	9	2	59
Others	0	0	0	0	0
Total	81	37	21	5	144

Expected Values

Gender/Frequency of usage	Daily	Weekly	Monthly	Rarely	Total
Male	48	22	12	3	85
Female	33	15	9	2	59
Others	0	0	0	0	0
Total	81	37	21	5	144

Expected Values = $\frac{CT \times RT}{GT}$

CT = Column Total

RT = Row Total

GT = Grand Total

Chi – Square Test = $\frac{\sum (O\,V - E\,V)^2}{E\,V}$

O V = Observed Values

E V = Expected Values

Degree of Freedom =(R-1)(C-1)

= (3-1)(4-1)

= 2 x 3 =6

Level of Significance is 5% i.e. 0.05

Tabular Value is = 12.592

Chi – Sqaure Test value is 0.980

Interpretation

From the above data we can state that, calculated chi-square value is less than the tabular value (i.e 0.980 < 12.592). So we accept the Null Hypothesis and Reject the Alternative Hypothesis.

Hypothesis - II

H0: There is no significance relation between the age and usage of digital platform

H1: There is a significance relation between the age and usage of digital platform

Observed Values

Age / Frequency of usage	Daily	Weekly	Monthly	Rarely	Total
18 – 25	19	12	4	2	37
26 – 35	31	10	10	1	52
36 – 45	23	6	3	1	33
46 – 60	6	7	3	1	17
60+	2	2	1	0	5
Total	81	37	21	5	144

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Expected Values

Age / Frequency of usage	Daily	Weekly	Monthly	Rarely	Total
18 – 25	21	10	5	1	37
26 – 35	29	13	8	2	52
36 – 45	19	8	5	1	33
46 – 60	10	4	2	1	17
60+	3	1	1	0	5
Total	81	37	21	5	144

Expected Values = $\frac{CT \times RT}{GT}$

CT = Column Total
RT = Row Total
GT = Grand Total

Chi – Square Test = $\sum \frac{(O\,V - E\,V)^2}{E\,V}$

O V = Observed Values
E V = Expected Values

Degree of Freedom =(R-1)(C-1)
=(5-1)(4-1)
= 4 x 3= 12

Level of Significance is 5% i.e. 0.05
Tabular Value is = 21.026
Chi – Sqaure Test value is 0.585

Interpretation
From the above data we can state that, calculated chi-square value is less than the tabular value (i.e 0.585 < 21.026). So we accept the Null Hypothesis and Reject the Alternative Hypothesis.

FINDINGS

- 26% of the responses age is 18-25yrs, 36% oof the responses age is 26-35yrs, 23% are 36-45yrs, 12% of the responses age is 46-60, 3% are above 60yrs
- 59% of the responses are male & 41% of the responses are Female.
- 3% of the responses doesn't have formal education, 8% of the responses have Primary Education, 11% have Secondary Education, 35% are Graduates, 43% are Post Graduates.
- 26% of the responses are Farmers, 10% are Labourers, 31% are Business mans, 19% are Salaried, 13% are Students.
- 18% of the responses Monthly Income is Less than 15000/-, 31% of the responses is 15001-30000, 38% of the responses is 30001-45000, 13% of the responses income is above 45001
- 100% of the responses know about the digital payments, 0% of the responses doesn't know about the digital payments
- 98% of the responses use the digital platforms for their payment and 2% doesn't use any digital platforms for their payments.
- 59% of the responses uses the digital payments by UPI (Phonepe, Googel Pay, Paytm etc.,), 21% of the responses use Mobile Banking, 9% of the responses use Net banking, 12% of the responses use Debit Card / Credit Card.
- 56% of the responses use the digital payments Daily, 26% of the responses Frequency of usage of digital payments is Weekly, 15% of the responses frequency of usage is monthly, 3% usage is rarely.
- 17% of the responses use digital platform for Utility Bills, 34% of the responses purpose of use is Mobile Recharge, 35% of the responses is Grocery / Shopping, 11% for Fund transfer, 3% are for others.
- 57% of the responses says yes digital platforms are safety for digital transactions, 17% says No, 26% says Not sure.
- 175 of the responses faces the challenge while using the digital platform is poor internet, 6% of the responses face Lack of Knowledge, 45% of the responses challenge is fear of fraud, 29% of the responses is Technical Issues, 3% are Others.

- 23% of the responses strongly agree for digital payments are more convenient than cash transactions, 41% of the responses agree for digital payments are more convenient than cash transactions, 15% are Neutral, 15% of the responses disagree, 11% of the responses strongly Disagree.
- 83% of the responses says Yes they will recommend to others to use the digital platform payments methods, 17% says No.
- 8% of the responses says Training would encourage you to use digital payments more often, 25% responses says Better Internet, 13% says Incentives, 15% says Local Language, 39% says Simpler Apps.

SUGGESTIONS

- To raise knowledge about the safe and efficient use of digital payment systems, implement organized programs in financial literacy and digital literacy through local NGOs, panchayats, or schools.
- To make technology more accessible to those in rural regions who do not understand English, advocate for apps and platforms that support vernacular languages and use voice-based instructions.
- In order to get the next generation ready for cashless transactions, rural school curricula should include digital financial literacy as a topic.
- To eliminate technical obstacles to digital payments, invest in reliable internet and mobile network coverage in outlying regions.
- Build confidence with government-backed education initiatives on secure use, fraud prevention, and complaint resolution.
- Incentives like cash back, rebates, or even the elimination of transaction fees might entice first-time rural users to make digital purchases.
- To improve the digital payment ecosystem from the ground up, help small business owners in rural areas learn how to accept payments using QR codes and offer financial incentives for their adoption.
- Put up real help desks so people in remote areas may obtain advice on how to securely install and use digital payment applications.

CONCLUSION

As smartphone penetration rises, government programs encourage digital payment use, and the benefits of cashless transactions become more apparent, this study sheds insight on the changing dynamics of digital payment adoption in rural regions. Notwithstanding this encouraging trend, research shows that there are still many obstacles to overcome, including issues with digital literacy, outdated or unreliable internet infrastructure, distrust, and a lack of accessible user-friendly platforms. These obstacles persist and make it harder for people living in rural areas to use digital payments effectively and widely.

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