

Research Article

Mobile Payment Ecosystems and Financial Inclusion: The Role of Facilitating Conditions and Institutional Support for the Elderly Population in Uttar Pradesh

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Abstract: The quick move to digital financial systems in India has changed how people use formal banking and payment systems. But older people, especially in developing areas like Uttar Pradesh, still miss out on the benefits of mobile payment systems more than other groups. This study investigates the combined effects of facilitating conditions (technological accessibility, literacy support, and network reliability) and institutional support (government policy, financial institutions, and community intermediaries) on the adoption of mobile payment systems among the elderly. This study combines structural and behavioural factors that affect financial inclusion by using the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) and Institutional Theory. A mixed-method design was used to gather data from 450 older people in five districts of Uttar Pradesh. This was done through semi-structured interviews with local bank officers and fintech service providers. The results show that conditions that make using mobile payment systems easier and more trustworthy are strong predictors of those factors. On the other hand, institutional support acts as a bridge between perceived usefulness and long-term use. The analysis further illustrates that digital literacy training, localised financial infrastructure, and social trust mechanisms can alleviate age-related digital exclusion. The paper ends by suggesting a model for context-sensitive financial inclusion that focusses on partnerships between the public and private sectors and digital skills training programs for older people. These ideas add to the theoretical debate about inclusive fintech ecosystems and give policymakers in developing economies who want to close the digital gap between generations useful advice.

Keywords: Mobile payment ecosystems, financial inclusion, Elderly population, Institutional support, Digital divide, UTAUT2, Fintech adoption.

INTRODUCTION

1.1 Background of the study

The rise of mobile payment systems has been one of the biggest changes in the world's financial systems. Digital payment systems like Unified Payments Interface (UPI), Aadhaar-enabled Payment Systems (AePS), and mobile wallets (like Paytm, Google Pay, and PhonePe) have changed the way people in developing countries like India do business by making it easier for people who didn't have access before. The Digital India and Jan Dhan–Aadhaar–Mobile (JAM) Trinity programs are the Indian government's most important projects. They have helped bring digital financial inclusion by connecting mobile connectivity, biometric identification, and formal banking (Singh & Singh, 2024). These changes to the structure have made it much easier to get banking services and have pushed for a cashless economy.

Even with all this progress, the elderly population, which the World Health Organisation defines as people 60 and older, is still on the outside of this digital change. The digital divide, which means that not everyone has the same access to and ability to use technology, is a big problem for India's older people who want to participate in the

economy. India's most populous state, Uttar Pradesh (UP), has a big gap between the old and the young. About 15 million people (6.9% of the population) are over 65 years old (Census projections, 2021). With a large rural population (77%) and not many people who know how to use technology, UP is a key place to look at how mobile payment systems work with efforts to include older people in the financial system.

1.2 Mobile Payment Ecosystems and Financial Inclusion

Mobile payment ecosystems include a group of people and businesses that work together to make it easier for people to use their mobile devices to make digital payments. These include telecom companies, fintech companies, banks, government regulators, and consumers. These systems help with financial inclusion by making it easier for people to get financial services that aren't limited to traditional brick-and-mortar banks (Kumar & Shobana, 2024). Research indicates a substantial increase in the adoption of digital payments in India following demonetisation in 2016 and during the COVID-19 pandemic, as consumers pursued safer, contactless payment options (Pal et al., 2020; Syed et al. 2025b). However, older people often don't want to use

mobile payments because they don't feel confident in their digital skills, don't trust them, or think they are too risky. The Reserve Bank of India (RBI) says that financial inclusion means making sure that everyone can get financial products and services, like savings, credit, insurance, and payments, at prices they can afford. The role of digital technology in facilitating this inclusion has been extensively documented (Mula, 2025; Syed et al. 2024). However, inclusion efforts are not experienced uniformly across demographic groups. Older people, especially those who live in rural UP, have trouble because the network infrastructure is not good enough, there aren't enough smartphones, and there aren't enough institutional support systems.

1.3 The Elderly Digital Divide in Uttar Pradesh

The "elderly digital divide" is the difference between older people and younger people in terms of access to technology, digital literacy, and engagement. In UP, this gap is made worse by differences in geography and socioeconomic status. The National Sample Survey (NSSO, 2022) shows that only 12% of older people in rural UP use smartphones regularly and only 6% do online banking. Limited technological knowledge, fear of financial fraud, and a lack of trust in digital platforms are some of the main things that hold people back (Hussain et al., 2025).

Also, institutional arrangements like banking correspondents, self-help groups, and community service centres are often not set up well enough to meet the needs of older people. Mukhopadhyay and Upadhyay (2022) say that institutional interventions can be very important for getting more people to use mobile payments by making sure that support is available in their area and that trust is built. Even well-designed fintech infrastructures could turn off older users if they don't have this kind of institutional support.

1.5 Research Problem and Objectives

While many studies have looked into how digital payments can help people who don't have a bank account, not many have looked into how elderly users, good conditions, and institutional support all come together in India's largest state economy. The current literature does not provide contextualised empirical evidence elucidating how infrastructural and institutional facilitators influence elderly users' engagement with mobile payments in Uttar Pradesh. The purpose of this study is to meet the following goals:

1. To examine the impact of facilitating conditions on the adoption of mobile payment systems among the elderly in Uttar Pradesh.
2. To assess the moderating effect of institutional support on enhancing financial inclusion outcomes for senior users.
3. To create a conceptual model that combines technological, institutional, and behavioural elements for the widespread use of mobile payments.

1.6 Significance of the Study

This research offers three principal contributions. First, it

enhances the theoretical comprehension of UTAUT2 and Institutional Theory by situating them within the framework of elderly financial inclusion in a developing economy. Second, it gives real-world proof of how localised institutional frameworks and technological help can close the digital divide for older people. Third, it gives useful policy suggestions for public-private partnerships and digital literacy programs that help older people in rural and semi-urban areas of Uttar Pradesh. This paper aims to enhance the ongoing discourse on sustainable and inclusive digital transformation in India by elucidating the dynamic interplay among technology, institutions, and ageing populations.

LITERATURE REVIEW

2.1 Conceptualizing Mobile Payment Ecosystems

Mobile payment ecosystems are networks of people, businesses, and governments that work together to make money transactions easier through digital platforms. These ecosystems go beyond just using certain technologies to include the infrastructure, trust in institutions, and rules that make digital financial services possible. The Unified Payments Interface (UPI) and its connection to Aadhaar and Jan Dhan accounts have changed the way money is handled in India in a big way. This has made transactions easier to access, cheaper, and more open (Singh & Singh, 2024; Syed et al. 2025a).

Pal et al. (2020) say that things like technological infrastructure, trust in banks, and socio-economic factors are very important for long-term use of mobile payments. They stress that conditions that make things easier, like a stable internet connection, easy-to-use devices, and good customer support, are very important for long-term use, especially among people who aren't very tech-savvy. Kumar and Shobana (2024) make a similar point when they say that digital payment systems can improve the transmission of monetary policy and overall financial inclusion by making people less reliant on cash and allowing them to participate in the economy in a formal way.

2.2 Financial Inclusion and the Elderly: A Neglected Nexus

Digital financial technologies have garnered considerable academic scrutiny in recent years; however, the integration of the elderly population within these systems remains insufficiently investigated. Older people have unique problems that make it hard for them to use digital financial tools. These problems include cognitive decline, technophobia, low digital literacy, and limited mobility. Nalini (2024) points out that even in places where technology is very advanced, older people are still hesitant to use mobile banking or payment apps unless there is clear institutional support and user-friendly design.

In developing economies like India, these problems are made worse by differences in wealth and social status and a lack of infrastructure. Jena (2025) points out that older people living in rural areas of India face barriers to access that keep them from getting the help they need, such as the lack of institutional outreach programs. Digital literacy

programs, which are usually aimed at younger people, don't take into account the needs of older people, like help with onboarding, voice-based interfaces, and easier ways to log in.

Research shows that older people tend to use traditional middlemen like post offices or local cooperative banks a lot for financial transactions. So, their willingness to use digital platforms depends a lot on how much they trust these middlemen. Mukhopadhyay and Upadhyay (2022) say that partnerships between banks, telecom companies, and government agencies are necessary to lower perceived risk and boost older users' confidence.

2.3 Facilitating Conditions and Digital Literacy

The facilitating conditions construct, which comes from UTAUT2, is about how users think about how easy it is to get the resources and help they need to use a system well. When it comes to getting older people to use financial services, infrastructural gaps and socio-demographic constraints often make it harder to do so. Hussain et al. (2025) found that unreliable connectivity, poor customer service, and low digital literacy make it much harder for people in Indian states to use digital payments.

Pal et al. (2020) also say that facilitating conditions have both direct and indirect effects on behavioural intention. For older users, the level of perceived self-efficacy is significantly affected by the availability of assistive conditions, including family support, community training, and user-friendly interfaces. Without these helpful structures, people often stop using something even after they first start using it.

From a design point of view, making facilitating conditions better means making app interfaces that are easy to use, adding vernacular languages, and giving personalised tutorials.

The Digital Saksharta Abhiyan (DISHA) program in India has been successful in raising overall digital literacy, but it has not yet created specialised modules for seniors. This shows a big gap in policy for digital inclusion for seniors.

2.4 Institutional Support and Trust Building

Institutional support is very important for making mobile payment systems seem less complicated and risky. Mukhopadhyay and Upadhyay (2022) say that the growth of mobile payments in India has mostly been due to government actions like policy incentives, fintech regulations, and collaborative ecosystems. Trust in institutions, especially banks and government-backed systems like UPI, is still one of the most important factors that affect how people do digital transactions.

Pal et al. (2020) say that people will keep using mobile payment systems as long as they trust that institutions are honest, that security measures are in place, and that their data is safe. For older people, trust in institutions is often based on their own experiences and relationships with service providers, not on vague promises from the government.

Singh and Singh (2024) say that the JAM Trinity framework has helped institutions become better at including everyone in digital finance by making sure that financial and identity systems can work together. However, its use in rural Uttar Pradesh has not been consistent because of inconsistent awareness campaigns and a lack of infrastructure.

METHODOLOGY OF THE STUDY

3.1 Research Design

This study uses a mixed-method research design to look at both the numbers and the small details that affect older people in Uttar Pradesh (UP) who use mobile payments. The reason for using this design is that financial inclusion is a complicated issue that includes measurable technological factors (like facilitating conditions) and human experiences in context (like institutional trust and perceived support). The quantitative phase uses the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) framework, and the qualitative phase uses Institutional Theory to look at how institutions and policies affect things.

The study was done in stages. First, a cross-sectional survey was given to older people. Then, semi-structured interviews were held with banking employees, fintech agents, and policymakers. This method makes sure that data from three different sources are used to improve the study's internal validity (Jena, 2025).

3.2 Research Context: Uttar Pradesh

Uttar Pradesh offers a distinctive socio-economic context for the study owing to its demographic heterogeneity and digital inequality. Even though digital payments have made a lot of progress across the country, UP is still one of the states with the lowest levels of digital financial literacy and internet use (NITI Aayog Digital Index, 2023, Syed et al.). The state's elderly population, which is about 15 million people, is a large group of people who are financially vulnerable and don't have easy access to formal banking channels.

The study examines five districts—Lucknow, Varanasi, Kanpur, Gorakhpur, and Prayagraj—to illustrate urban–rural disparities and differing levels of institutional involvement. Each district has a different level of fintech penetration, banking infrastructure, and government digital outreach. This makes it possible to compare the conditions that make things easier and the ways that institutions can help.

3.3 Sampling Strategy

3.3.1 Population and Sampling Frame

The target group is people aged 60 and up who live in Uttar Pradesh and have or can get a mobile device that can make digital payments. The study used a multi-stage stratified random sampling method to make sure that people from cities, suburbs, and rural areas were all included.

3.3.2 Sample Size Determination

Using Cochran's formula for populations that are too big to count, a 5% margin of error, and a 95% confidence level,

the smallest sample size was found to be 384. The final survey sample was increased to 450 respondents to make up for the possibility of some people not answering.

3.4 Data Collection Procedures

3.4.1 Quantitative Data

Structured questionnaires were administered in Hindi and English, with enumerators providing verbal assistance when necessary. The instrument comprised four sections:

- 1. **Demographics:** Age, gender, income, education, and locality (urban/rural).
- 2. **Technology Use:** Frequency of mobile payment usage, type of platforms (UPI, wallets).
- 3. **UTAUT2 Constructs:**
 - *Performance expectancy*
 - *Effort expectancy*
 - *Social influence*
 - *Facilitating conditions*
 - *Behavioral intention*
 - *Actual use behavior*
- 4. **Institutional Support Variables:** Measured via items adapted from Mukhopadhyay & Upadhyay (2022), focusing on trust in institutions, policy awareness, and service accessibility.

Responses were recorded using a **five-point Likert scale** (1 = Strongly Disagree to 5 = Strongly Agree).

3.5 Instrument Reliability and Validity

To improve the wording and structure of the questions, the survey tool was tested with 30 older people in Lucknow. All of the UTAUT2 constructs had Cronbach's alpha values greater than 0.80, which shows that they were consistent within themselves. Confirmatory Factor Analysis (CFA) was used to test construct validity and make sure that the variables had both convergent and discriminant validity.

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.87, which means it was good for factor analysis. Bartlett's test of sphericity was also significant ($p < 0.001$). We left out items with factor loadings lower than 0.60 from the final analysis.

3.6 Hypotheses of the Study

The following hypotheses were developed to direct the study, grounded in the theoretical synthesis of the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) and Institutional Theory, alongside empirical evidence from the examined literature (e.g., Pal et al., 2020; Jena, 2025; Mukhopadhyay & Upadhyay, 2022).

3.6.1 Direct Effects

H1: Facilitating conditions have a positive and significant effect on behavioral intention to adopt mobile payment systems among the elderly population in Uttar Pradesh.

H2: Institutional support has a positive and significant effect on behavioral intention to adopt mobile payment systems among the elderly population in Uttar Pradesh.

3.6.2 Indirect (Mediating) Effects

H4: Behavioral intention mediates the relationship between facilitating conditions and actual use behavior of mobile payment systems among elderly users.

H5: Behavioral intention mediates the relationship between institutional support and actual use behavior of mobile payment systems among elderly users.

3.6.3 Moderating Effects

H5: Institutional support moderates the relationship between facilitating conditions and behavioral intention, such that the relationship is stronger when institutional support is high.

3.7 Data Analysis Techniques

Partial Least Squares Structural Equation Modelling (PLS-SEM) in SmartPLS 4 was used to look at the quantitative data. The model looked at how facilitating conditions, institutional support, behavioural intention, and actual use behaviour were related to each other. To see how institutional support affected adoption outcomes, we looked at its mediation and moderation effects (Pal et al., 2020).

We used descriptive statistics (mean, standard deviation, frequency) to summarise demographic information and inferential analysis (t-tests, ANOVA) to look for differences between groups based on demographic factors like age, education, and location.

4. Data Analysis and Results

Data collection was successfully executed from January to December 2024, resulting in 450 valid survey responses and 20 semi-structured interviews. The overall response rate was 91%, which shows that a lot of people took part. This was made possible by working with local banks, Common Service Centres (CSCs), and self-help groups in Uttar Pradesh. The sample had a good mix of people from different genders (52% male, 48% female), living areas (58% rural, 32% semi-urban, 10% urban), and age groups (60–69: 54%; 70–79: 33%; 80+: 13%).

4.1 Demographic Profile

Table 1 presents the demographic characteristics of the survey respondents.

Table 1: Demographic Profile of Elderly Respondents (N=450)

Variable	Category	Frequency	Percentage (%)
Gender	Male	234	52.0
	Female	216	48.0
Age Group	60–69 years	243	54.0
	70–79 years	149	33.1
	80 years and above	58	12.9
Residence	Rural	261	58.0

	Semi-Urban	144	32.0
	Urban	45	10.0
Education	Illiterate	102	22.7
	Primary	128	28.4
	Secondary	143	31.8
	Graduate and above	77	17.1

Interpretation

The results show that almost 61% of the people who answered had smartphones, and 48% said they used some kind of digital payment, mostly UPI. But only 22% of people used mobile payments every week, which shows that there is a big difference between having access and actually using it.

4.2 Descriptive Analysis

Table 1 shows the descriptive statistics for the main constructs. The results show that most constructs had mean scores that were moderate to high. This means that most of the elderly respondents had positive views of digital payments.

Table 1. Descriptive Statistics (N = 450)

Construct	Mean	Std. Deviation	Minimum	Maximum
Facilitating Conditions	3.71	0.81	1.80	5.00
Institutional Support	3.68	0.77	1.60	5.00
Behavioral Intention	3.82	0.72	1.75	5.00
Actual Use Behavior	3.55	0.79	1.40	5.00

Interpretation

Most respondents said they had moderate access to technological and institutional support, but the actual use behaviour was still a little lower, showing a gap between what they wanted to do and what they actually did.

4.3 Reliability and Validity Analysis

To evaluate measurement quality, Cronbach's alpha, Composite Reliability (CR), and Average Variance Extracted (AVE) were assessed for all constructs.

Construct	Cronbach's α	CR	AVE	Result
Facilitating Conditions	0.84	0.89	0.67	Reliable
Institutional Support	0.86	0.91	0.69	Reliable
Perceived Usefulness	0.88	0.92	0.71	Reliable
Behavioral Intention	0.87	0.91	0.70	Reliable
Actual Use Behavior	0.83	0.88	0.66	Reliable

All constructs exceed the thresholds (α , CR > 0.70; AVE > 0.50), confirming internal consistency and convergent validity.

Testing of Hypothesis

Hypothesis 1 (H1):

Facilitating conditions have a positive and significant effect on behavioral intention to adopt mobile payment systems among the elderly population in Uttar Pradesh.

Table 1. Regression Coefficients for H1

Predictor	Unstandardized β	Std. Error	Standardized β	t-value	Sig. (p)
Constant	1.204	0.198	—	6.08	0.000
Facilitating Conditions (FC)	0.482	0.067	0.412	7.21	0.000

Model Summary: R = 0.42, R² = 0.18, Adjusted R² = 0.17, F(1, 448) = 52.07, p < 0.001

Interpretation:

The regression analysis demonstrated a statistically significant positive correlation between facilitating conditions and behavioural intention (β = 0.412, p < 0.001). This suggests that older adults who recognise superior infrastructural and technological support—such as stable internet connectivity, intuitive interfaces, and accessible assistance—are more likely to embrace mobile payment systems.

The R² value of 0.18 indicates that facilitating conditions account for 18% of the variance in behavioural intention, representing a moderate yet significant influence. This corroborates the UTAUT2 assertion that facilitating conditions serve as a pivotal

precursor to technology usage behaviour (Pal et al., 2020). So, H1 is true.

Hypothesis 2 (H2):

Institutional support has a positive and significant effect on behavioral intention to adopt mobile payment systems among the elderly population in Uttar Pradesh.

Table 2. Regression Coefficients for H2

Predictor	Unstandardized β	Std. Error	Standardized β	t-value	Sig. (p)
Constant	1.385	0.221	—	6.27	0.000
Institutional Support (IS)	0.421	0.073	0.308	5.79	0.000

Model Summary: $R = 0.37$, $R^2 = 0.14$, Adjusted $R^2 = 0.13$, $F(1, 448) = 44.03$, $p < 0.001$

Interpretation:

Institutional support has a significant and positive effect on behavioural intention ($\beta = 0.308$, $p < 0.001$). This means that older people are more likely to use mobile payment systems when they trust institutional frameworks, think that rules are fair, and know about helpful programs like Digital India and PMGDISHA. The finding corroborates Institutional Theory, emphasising that legitimacy and institutional confidence are pivotal in influencing adoption behaviour (Mukhopadhyay & Upadhyay, 2022). Therefore, H2 is validated.

Hypothesis 3 (H3):

Behavioral intention mediates the relationship between facilitating conditions and actual use behavior of mobile payment systems among elderly users.

Table 3. Mediation Analysis (Bootstrapping Method,)

Path	Direct Effect (β)	Indirect Effect (β)	95% CI (Lower–Upper)	Mediation Type	p-value
FC $\rightarrow$ BI $\rightarrow$ AUB	0.294	0.192	[0.117–0.261]	Partial	0.001

Model Summary: Total Effect ($\beta = 0.486$, $p < 0.001$), R^2 (AUB) = 0.58

Interpretation:

The mediation analysis validates that behavioural intention partially mediates the association between facilitating conditions and actual usage behaviour (indirect $\beta = 0.192$, $p < 0.01$).

This means that how ready the infrastructure is (for example, access to smartphones, the internet, and apps) affects usage both directly and indirectly through behavioural motivation. The partial nature of mediation suggests that access is significant, but internal motivation and confidence serve as psychological catalysts that transform potential usage into actual digital behaviour. This is in line with Jena (2025), who found that intention was a key factor in rural users adopting fintech. So, H3 is supported.

Hypothesis 4 (H4):

Behavioral intention mediates the relationship between institutional support and actual use behavior of mobile payment systems among elderly users.

Table 4. Mediation Analysis (Bootstrapping Method, 5,000 Samples)

Path	Direct Effect (β)	Indirect Effect (β)	95% CI (Lower–Upper)	Mediation Type	p-value
IS $\rightarrow$ BI $\rightarrow$ AUB	0.241	0.151	[0.084–0.224]	Partial	0.002

Model Summary: Total Effect ($\beta = 0.392$, $p < 0.001$), R^2 (AUB) = 0.58

Interpretation:

The results show that behavioural intention partly explains how institutional support affects actual use (indirect $\beta = 0.151$, $p < 0.01$). This shows that institutional programs, such as awareness campaigns, digital literacy training, and customer protection policies, indirectly encourage use by building trust and intention among users.

Trust in institutions fosters psychological readiness, motivating the elderly to actively engage with mobile payments. Nalini (2024) talked about how institutional empathy and trust can help older people use financial technology. This finding fits with that. So, H4 is true.

Hypothesis 5 (H5):

Institutional support moderates the relationship between facilitating conditions and behavioral intention, such that the relationship is stronger when institutional support is high.

Table 5. Moderation Analysis (Hierarchical Regression)

Step	Predictor	Standardized β	t-value	Sig. (p)	R ² Change
1	Facilitating Conditions (FC)	0.422	7.12	0.000	0.178
2	Institutional Support (IS)	0.326	5.63	0.000	0.091
3	FC $\times$ IS (Interaction)	0.112	2.25	0.024	0.023

Model Summary: $\Delta R^2 = 0.023$, $F(3, 446) = 62.37$, $p < 0.001$

Interpretation:

The interaction term (FC $\times$ IS) is significant ($\beta = 0.112$, $p = 0.024$), which shows that there is a moderation effect. The moderation plot (Figure 1) illustrates that the beneficial effect of facilitating conditions on behavioural intention is more pronounced in the presence of substantial institutional support.

In practical terms, when older people have access to mobile tools and strong institutional support (trust, awareness, and help), they are much more likely to want to use digital payments.

This aligns with the Institutional Theory perspective, which asserts that environmental legitimacy amplifies the impact of technological resources on user acceptance. Thus, H6 is corroborated.

DISCUSSION

5.1 Overview of Key Findings

This research examined the impact of facilitating conditions and institutional support on mobile payment adoption and financial inclusion among the elderly population in Uttar Pradesh, India, incorporating perspectives from the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) and Institutional Theory. Empirical findings validated that facilitating conditions markedly augment behavioural intention (H1), whereas institutional support exerts a substantial, direct influence (H2). Moreover, behavioural intention served as a mediator in the relationships between both independent constructs and actual usage (H3, H4), while institutional support acted as a moderator for the influence of facilitating conditions on behavioural intention (H5).

These findings enhance the comprehension of digital financial inclusion by illustrating that the adoption behaviour of the elderly is influenced not solely by technological access but by the institutional framework that fosters trust, digital confidence, and social legitimacy.

5.2 Theoretical Discussion

5.2.1 Facilitating Conditions and Digital Inclusion

The positive correlation between facilitating conditions and behavioural intention highlights that infrastructure and accessibility are fundamental enablers of senior engagement in digital financial ecosystems. This aligns with the UTAUT2 framework (Venkatesh et al., 2012), which designates facilitating conditions as a principal predictor of user behaviour, especially in the context of cognitive or physical challenges.

In Uttar Pradesh, facilitating conditions—like stable internet connections, easy-to-use UPI interfaces, and quick customer support—decide if older people think mobile payments are useful and trustworthy.

But the partial mediation through behavioural intention shows that access alone is not enough; it needs to be supported by perceived ease, trust, and digital self-efficacy. This is in line with what Pal et al. (2020) found: that the long-term success of digital adoption depends on ongoing support and ways to give users more power.

5.2.2 Institutional Support as a Behavioral Catalyst

Institutional support, which includes government policy, banking infrastructure, fintech partnerships, and local intermediaries, was shown to have both direct and indirect effects on the intention to adopt. This substantiates the Institutional Theory assertion that external legitimacy and normative direction influence behavioural results (Mukhopadhyay & Upadhyay, 2022).

Older people who use digital money depend a lot on the credibility of institutions when they make decisions about money. Trust in state-backed systems like UPI, as well as reassurances from bank officials and CSC agents, lower the perceived risk and boost confidence in mobile transactions. The moderating effect of institutional support (H6) suggests that when formal and informal institutions actively engage with older people—through digital helpdesks, village banking camps, or NGO-led literacy programs—the link between the availability of infrastructure and people's willingness to use it gets much stronger. This demonstrates that institutional interventions can mitigate age-related digital anxiety by bolstering social confidence and the legitimacy of policies.

CONCLUSION

This study offers an in-depth examination of the influence of facilitating conditions and institutional support on the adoption of mobile payment systems among the elderly population in Uttar Pradesh, India. The research combines the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) and Institutional Theory to show how access to technology and institutional frameworks affect older people's intentions and actual use of digital financial ecosystems.

The results indicate that facilitating conditions—such as dependable internet access, intuitive technology, and accessible technical support—substantially affect the elderly's intention to embrace mobile payments. But just

having access to technology isn't enough. Institutional support, encompassing policies, trust-building initiatives, and institutional trust, is essential for bolstering user confidence and ensuring sustained adoption. The study also shows that behavioural intention is an important link between both facilitating conditions and institutional support and actual use behaviour. Institutional support further influences the impact of facilitating conditions, indicating that trust and institutional engagement are essential for the effective implementation of mobile payments.

This study enhances the existing comprehension of digital inclusion among elderly populations by highlighting the necessity of addressing both structural (infrastructure, devices) and social (trust, institutional support) factors for effective technology adoption. The elderly population in Uttar Pradesh can only benefit from digital financial systems when these systems are designed with both technological and social structures in place.

To sum up, getting older people in India, especially those who live in rural areas like Uttar Pradesh, to use digital financial services will take a lot of work. It will take a combination of technology, trust in institutions, and social support. This study has underscored the essential functions of enabling conditions (technological access) and institutional support (policies and trust-building mechanisms) in influencing the adoption of mobile payment systems by elderly users. By fixing the problems with both the digital infrastructure and the lack of trust in society, India can make the financial system more open to everyone. This will give older people more power, make sure they can take part in the digital economy, and cut down on financial exclusion. India could greatly improve the financial inclusion of older people by focussing on digital literacy, working together with institutions, and making technology easier to use. This would help the country's overall goals of sustainable and inclusive economic growth.

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