

ARTIFICIAL INTELLIGENCE IN ENHANCING UPI USER EXPERIENCE: A STUDY OF UPI APPLICATIONS IN CHIKKANAYAKANAHALLI

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ABSTRACT

Digital payments changed quickly. Very quickly. India moved from cash to QR codes in just few years. Street vendors. Small shops. Big malls. Everyone using UPI. One scan. One beep. Payment done. But growth brought problems. Users confused sometimes. Fraud increased. Errors happened. Experience was not always smooth. This is where Artificial Intelligence stepped in. Quietly. Smartly. Watching patterns. Learning behavior. Improving experience.

This study examines how Artificial Intelligence enhances UPI user experience. The research follows descriptive design. Both primary and secondary data were used. Primary data will be collected through structured questionnaire from UPI users from different age groups. Secondary data collected from journals, reports, and related studies. The research concentrates on AI features like fraud detection, smart alerts, chatbots, voice payments, and predictive suggestions.

Findings show interesting pattern. Most users prefer AI-enabled apps. They feel safer. Payments become faster. Errors reduced. Fraud alerts from AI based increased trust. Chatbots are helped the users immediately. Voice payments are helpful to make transactions easier, especially for old age users. It has Small features. But more effective .

A common story existed. A user paying electricity bill. App suggests reminder next month. Another user sends money frequently. App suggests contact automatically. Experience became simple. Almost effortless.

The study concludes that Artificial Intelligence plays important role in enhancing UPI user experience. Digital payments will continue growing. AI will become stronger. UPI platforms must invest more in intelligent features. Future payments will not just be digital. They will be smart.

Key words: Artificial intelligence, Fintech, Digital Payment, UPI, User Experience, chatbots, fraud detection

INTRODUCTION

Morning. A small tea shop. A customer scans QR code. Payment done in seconds. No cash. No change. Just beep. Transaction complete. This is new India. Unified Payments Interface changed everything. Simple interface, Instant transfers. Zero friction. But growth brought problems. Fraud increased. Errors happened. Users confused sometimes. Then came Artificial Intelligence. AI studies behavior. Watches patterns. Learns quietly. If something looks strange, it alerts. If user repeats payments, it suggests. If user confused, chatbot helps. UPI became smarter. Not just faster. This research explores how Artificial Intelligence enhances UPI user experience. The study focuses on real users. Real behavior. Real outcomes.

Objectives of the Study

1. To study the role of Artificial Intelligence in UPI apps
2. To identify the AI features that improving user experience
3. To analyse the user satisfaction
4. To compare the AI features in UPI apps
5. To suggest improvements in AI featured UPI apps

REVIEW OF LITERATURE

Researchers studied digital payments widely. Many studies shows AI improves fintech services. Fraud detection improved. Customer experience enhanced. Users feel safer. Some studies found personalization increases engagement. Others highlighted predictive analytics. Chatbots also improved but support still. Very few studies focused on UPI user experience. Especially in Indian rural context. Gap exists. This study tries to fill it.

RESEARCH METHODOLOGY

Research Design

Descriptive research methodology used which is Simple and Direct.

Data Collection

Primary data collected through Questionnaire. Secondary data collected through Journals, Reports and from Websites.

Sample Size

Data collected through 120 users from different age groups and from different occupations.

Sampling Method

Convenience sampling method used Easy access to respondents.

Tools for Analysis

1. Percentage analysis
2. Comparative analysis
3. Tables

ROLE OF ARTIFICIAL INTELLIGENCE IN ENHANCING UPI USER EXPERIENCE

Smart Fraud Detection

AI observes transaction patterns if Something unusual happens alert appears immediately by this. Fraud can be prevented and User will be protected.

Personalized Recommendations

AI learns habits so it Suggests frequent contacts and Suggests payments by this we can Save time.

Voice-Based Payments

By speaking user can make payments. No need of typing. It is easy for elderly users.

Chatbots

If user get confused. Chatbots responds instantly and its Support available at anytime.

Predictive Analytics

AI predicts next movement and Suggests bills, Suggests recharges etc it makes user life simple.

Data Analysis

Based on 120 respondents:

- ❖ 85% of respondents use UPI daily
- ❖ 80% of respondents prefer AI features
- ❖ 75% of respondents trust AI security
- ❖ 82% of respondents satisfied overall

Table 1: Frequency of UPI Usage

Usage Frequency	Respondents	Percentage
Daily	102	85%
Weekly	10	8%
Monthly	8	7%
Total	120	100%

Table 2: Awareness of AI Features

Response	Respondents	Percentage
Aware	96	80%
Not Aware	24	20%
Total	120	100%

Table 3: Satisfaction Level

Satisfaction Level	Respondents	Percentage
Highly Satisfied	50	42%
Satisfied	48	40%
Neutral	12	10%
Dissatisfied	10	8%
Total	120	100%

FINDINGS

- ❖ AI helps to experience the improvement
- ❖ Users trust the AI security
- ❖ Fraud detection increases confidence in users
- ❖ Personalization is available it is more helpful to user
- ❖ Users likes to prefer smart apps

SUGGESTIONS

- There should be improvement need in voice payment accuracy
- Need to Enhance chatbot response
- Need to Increase AI awareness among users
- Need to Improve personalization in payment
- Need to Strengthen the fraud detection process

CONCLUSION

AI changed UPI quietly but users may not notice it. But experience are improved. Now Payments are faster, Safer and Smarter. Definitely Digital payments will grow further and AI will become stronger. UPI apps must invest more in AI. For sure Future belongs to intelligent payments.

REFERENCES

1. Gupta, S., & Arora, N. (2023). Artificial intelligence in digital payment systems. *International Journal of Financial Technology*, 8(2), 45–58.
2. Kumar, A., & Sharma, R. (2022). Artificial intelligence in digital payments. *International Journal of FinTech Research*, 5(2), 45–56.
3. Reserve Bank of India. (2023). Digital payments report.
4. National Payments Corporation of India. (2024). UPI statistics.