

Adoption of Unified Payments Interface (UPI) Services in Dubai: A User Perspective

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ABSTRACT

The present study examines the determinants of users' perceptions and adoption intentions towards the Unified Payments Interface (UPI) in Dubai. UPI has emerged as one of the most successful real-time digital payment systems in India due to its speed, convenience, low cost, and interoperability. However, its acceptance in an international market such as Dubai depends not only on technological availability but also on user perception, trust, security, ease of use, and social influence. The study is descriptive and based on primary data collected from 250 respondents residing in Dubai. The major variables considered in the study include perceived usefulness, perceived ease of use, trust, security, social influence, overall perception, and behavioural intention. The findings reveal that respondents in Dubai show a high level of awareness and readiness towards digital payment systems. Mean score analysis indicates that perceived usefulness is the strongest determinant influencing user perception towards UPI. Regression analysis shows that all selected factors have a significant impact on adoption intention, with security emerging as the most influential factor. Correlation analysis further confirms a strong positive relationship between overall user perception and behavioural intention to adopt UPI. The study concludes that UPI has strong potential for adoption in Dubai if issues related to security, trust, awareness, and system integration are properly addressed.

Keywords: Adoption Intention, Behavioural Intention, Digital Payments, Dubai, FinTech, Perceived Usefulness, Security, Trust, Unified Payments Interface, UPI, User Perception.

Introduction

The rapid evolution of financial technology (FinTech) has made a substantial impact on the payments industry over the last decade. Digital payment platforms have replaced the conventional cash payment system with faster, more secure, and convenient payment options. Among these successful payment innovations, the Unified Payments Interface (UPI), developed by the National Payments Corporation of India, has proved to be one of the most successful real-time payment platforms worldwide. Since its launch in the year 2016, UPI has transformed the Indian payments industry by providing instant money transfers using mobile phones with negligible transaction charges and high interoperability between banks.

The growing global adoption of UPI, including its introduction in Dubai, is a major influence in the global change towards digital payments across international borders. Dubai, famous for its sophisticated financial system and financial hub, high smartphone usage, and high use of digital banking services, is an ideal

place to study the perception and intention of users towards adopting a different platform, such as UPI. Although the technological advantage of UPI has been well proven in the Indian market, its adoption in a new and different environment may be influenced by a variety of psychological, technological, and institutional factors.

Hence, the purpose of the study is to understand the main determining factors that affect the users' perception of the possibility of intention to use UPI when introduced in Dubai. Through blending the existing theoretical framework with practical issues that are related specifically to the UAE market context, the study aims to have a thorough grasp of the effect of technology, societal impact, and psychology on consumer attitudes towards such Fintech technology.

Statement of the problem

A revolutionary growth has been marked in the digital technology era which has resulted in multiple changes in the financial sector of the globe and because of that, various kinds of novel payment mechanisms have been innovated, which in this context, particularly the Unified Payment Interface (UPI). UPI technology has gained huge traction since its introduction in India, owing to the advantages it offered like easy access, faster processing of online transactions, and minimal costs; however, the implementation of the same in an international setting, particularly a huge financial hub like Dubai, which is considered as an innovative and tech savvy cities in the world, is still vague in regards to this technology. Even though Dubai possesses a robust infrastructure required for digital technologies and the heavy reliance on smartphones and increasing inclination towards cashless payments, there may be some determinants still affecting the acceptance of a foreign payment mechanism like UPI. One major question that arises is how a user in Dubai is likely to view UPI and what actually motivates the user to make use of the system. Thus, the problem for the research established here is to identify and analyse the key determinants that influence the perception of a user regarding UPI being introduced in Dubai, and to analyse how such factors affect the behavioral attitude to make use of the digital payment platform. Consequently, objectives have been framed for the purpose of determining the bridge between the “user perception and the intention to adopt UPI”.

Objective of the study

- To determine the key determinant factors affecting user perception toward the Unified Payments Interface (UPI) in Dubai.
- To examine the effect of factors such as perceived usefulness, ease of use, trust, security, and social influence on users' intention of adopting UPI.
- To explore the association between user perception and behavioral intention among users in adopting UPI as a digital payment tool in Dubai.

Review of Literature

The adoption of UPI and digital payments has become increasingly common in recent years, owing to the rapid advancement of technology in financial banking services. According to Agarwal et al. (2022), consumer perception of digital payment platforms depends on aspects like trust, reliability, familiarity, and prior experience. The study revealed that positive perceptions and confidence in the digital platforms motivate customers to use and continue using UPI services. In the same way, Singh (2021) noted that the increased governmental support, infrastructure development, and awareness campaigns have promoted

the adoption of UPI among customers. Convenience and ease of transactions were identified as key motivational factors for cashless payments.

Kumar et al. (2021) investigated the behavioural intention of consumers in relation to digital payments and found out that perceived usefulness, speed, convenience, and cost effectiveness motivate positive customer perception. Moreover, the study indicated that trust and security are key determinants of the continued use of digital payments. In this regard, Dwivedi et al. (2020) pointed out that the acceptance models like TAM and UTAUT are important in understanding digital payment adoption behaviour. Social influence, ease of use, and technological readiness were identified as key determinants influencing customer intention in adopting digital payment services.

The other issue identified by Gupta & Arora (2020) is that privacy concerns, fear of fraud, and lack of knowledge about cybersecurity lower the level of confidence among users when it comes to making payments digitally. Nevertheless, the authors argued that sufficient security measures and proper customer support can enhance trust and increase the rate of adoption. Similarly, Patil et al. (2020) conducted an analysis of customer attitudes toward mobile payment apps and found that interface design, accessibility, and ease of use play an important role in enhancing customer satisfaction and encouraging their intentions of using the service in the long term. From the review of literature above, one can identify several factors that shape customer perception and adoption of UPI services.

Research Methodology

The research is descriptive in nature and deals with the intention for adoption of Unified Payments Interface (UPI) among residents of Dubai. The study focuses on understanding how the selected factors influence users' intention to adopt UPI systems. The study depends on primary data collected through a structured questionnaire, which includes statements related to the perceived usefulness and ease of use of UPI technology. Journals, books, bank websites, reports, and other similar sources were used to give context for the study, which is basically the secondary data for the research.

Analysis and Discussions

Objective 1: To determine the key determinant factors affecting user perception toward the Unified Payments Interface (UPI) in Dubai.

For determining the factors affecting users' perception about UPI, mean score analysis was used for each factor that was considered. The factors considered in this study are perceived Usefulness, perceived ease of use, trust, security, and social influence. For this, a five-point Likert scale was used to measure the responses; the mean scores enable us to understand the tendencies of the respondents towards each factor.

Table: Mean score analysis of key determinants

Factors	N	Minimum	Maximum	Mean	Std. Deviation
Perceived usefulness	250	1.75	5.00	3.8010	.78876
Perceived ease of use	250	1.25	5.00	3.6880	.87706
Trust	250	1.33	5.00	3.6053	.83475
Security	250	1.00	5.00	3.6013	.86361
Social	250	1.33	5.00	3.5320	.83653

(Source: Primary Data)

Interpretation

The analysis provided us with a clear view of perceptions of various factors related to UPI. From all the factors analysed, perceived usefulness was found to have the highest mean score of 3.80 suggesting that the respondents consider the advantages of UPI for it being able make faster transactions and less of a hassle to use compared to conventional means. Therefore, the practicality of UPI seems to be the factor affecting respondent impression. perceived ease of use showed a high but slight relative lower score of 3.68. This suggests that the basic principle and functioning of UPI apps are easy for the users to understand, making users satisfied with the easiness of the system. After this comes trustworthiness and security respectively, with a rather similar but moderate scores of 3.61 and 3.60. It seems to be that the respondents are confident in UPI but not too much considering the rather average mean scores. Social influence is shown to have the lowest score of 3.53 compared to other factors. In this case, external factors (such as friends, family and social circles of individuals) affect the usage of UPI systems.

In summary, respondent’s perception towards the use of UPI is affected by several factors. However, perceived usefulness showed the most considerable score. At the same time, perceived ease of use, trust, security showed a relative tendency of being notable as well. Nevertheless, social influence turned out to be the least significant.

Objective 2: Examine the effect of factors such as perceived usefulness, ease of use, trust, security, and social influence on users’ intention of adopting UPI.

H0: Factors such as perceived usefulness, ease of use, trust, security, and social influence do not have any significant effect on users’ intention to adopt UPI.

H1: Factors such as perceived usefulness, ease of use, trust, security, and social influence have a significant effect on users’ intention to adopt UPI.

To analyse the effect of the various factors relating to the behavioral intention to adopt UPI, linear regression analysis was used. In this case, the dependent variable was behavioral intention, and the other independent variables used were perceived Usefulness, perceived ease of use, trust, security, and social influence.

Table: Model Summary

R	R ²	Adjusted R ²	Std. Error
0.848	0.719	0.713	0.566

(Source: Primary Data)

The model shows that there is a strong relationship between the dependent and independent variables” which is shown by the R value. The R value being 0.719 says that about 71.9% of variability in behavioral intention can be attributed to these given factors. So, the model is quite an explanatory one.

The adjusted R square value is 0.713, showing the model holds its ground when adjusted according to the number of variables used. Thus, it can be inferred that these factors are quite significant in suggesting the users’ intention to use UPI.

Table: ANOVA Results

Model	Sum Squares	of	df	Mean Square	F	Sig.
Regression	200.531		5	40.106	124.870	.000 ^b

Residual	78.369	244	.321		
Total	278.900	249			

(Source: Primary Data)

According to the result of ANOVA, the model is statistical considerable since the significance value is to be shown less than 0.05. This makes the variables in the right threshold and means that the independent variables taken collectively doesn't affect the behavioral intention of the users. So, in simple terms, the model is actually reliable and can be implemented for further analysis.

Table: Coefficient Table

Variable	B	Beta	Sig.
Perceived Usefulness	0.323	0.241	0.000
Perceived Ease of Use	0.103	0.085	0.042
Trust	0.245	0.193	0.000
Security	0.402	0.328	0.000
Social Influence	0.321	0.254	0.000

(Source: Primary Data)

Findings from the above table i.e.; the coefficient table provides us with a clean explanation of the relationship between the variables in contributing towards the behavioral intention. Out of all the variables under discussion, security proves to be the most influential since it has a high beta value. This means users consider security reasons when using UPI as a payment tool.

Similarly, social influence and perceived usefulness also is proved t be highly significant meaning that external motivation as well as usefulness contribute towards behavioral intention.

Trust has proved to be notably positive as well contributing to intention to adopt UPI by users as they tend to use the service which they believe in.

Finally, perceived ease of use received the lowest coefficient compared to other variables, but it too remains significant statistically. This shows that users like something that's less constraining to use but at the same time other decision processes hold weight as well.

From this we know that all the variables discussed hold some positive contribution towards the behavioral intention and are statistically significant

Interpretation

Obviously, from the results of the above regression analysis, it can be inferred that all the independent variables have significance value below 0.05 which is in the right margin. It simple indicates that all the factors used in the model have some effect on behavioral intention.

Moreover, the model itself is statistically significant because it is indicated by the ANOVA results. In this case, the R square value is high showing that most of the variation in behavior intention can be linked to these factors.

So, from the above discussion, it maybe stated that here exists sufficient evidence regarding the importance of these factors in influencing users' intention to adopt UPI.

As a result, the null hypothesis is rejected, and the alternative hypothesis is accepted.

Hence, based on the analysis, the users' motive to use UPI depends upon a list of factors including the variables discussed above namely security, ease of use, usefulness, social influence, trust. Security turned out to be the most influencing factor out of all the others in regards to the behavioral intention.

Objective 3: Explore the association between user perception and behavioral intention among users in adopting UPI as a digital payment tool in Dubai.

H0: There is no significant association exists between user perception and behavioural intention to adopt UPI.

H1: There is a significant association exists between user perception and behavioural intention to adopt UPI.

To establish whether the overall perception of the users in regards to UPI technology influences their behaviour pattern to use it, correlation analysis was performed. The approach for thus study was Person Correlation was it helps examine the connection between user perception and behavioral intention.

Table: Correlation Table

Variables	Pearson Correlation	Sig. (2-tailed)
Overall Perception & Behavioural Intention	0.836	0.000

(Source: Primary Data)

A very strong positive correlation between the overall perception of UPI and its behavioral intention with a correlation coefficient of 0.836 can be depicted from the results of the analysis. In essence, it means that the users tend to have more favourable perception about UPI and the possibility to use it will significantly improve.

Significance value retrieved from the analysis is 0.000, which is well below the threshold of 0.05. Therefore, it affirms the validity of the results and makes the relationship more statistically considerable.

When taking into account the practicality point of view, the results evidently show that users are much more receptive towards the systems when it comes to the convenience, efficiency, security and usefulness. Making sure that they are willing to use it in the foreseeable future and recommend it to others as well.

With the significance value being lower than 0.05 as well as the correlation coefficient having a prominent value and indicating positive, it is clear that there exists a significant correlation between these two variables. It enables us to learn that the impression of UPI is significant in relation to behavioral intention of the users. With increasing perception, we can assume that behavioral intention will tend to increase.

Consequently, the null hypothesis is rejected and the alternative hypothesis is accepted.

Alas, from the findings of the analysis, we get to know that the overall perception of users is considerably related to their behavioral intention with respect to UPI platforms.

Findings

- **Balanced demographic distribution**

The research incorporates almost an even distribution of male and female respondents ensuring that the results are not biased towards any specific gender.

- **Prevalence of younger and middle-aged participants**
Most of the respondents fall in the age category of 25 to 35 years implying that people familiar with technology comprise the core group of users.
- **Educated respondents**
Most of the respondents are either undergraduates or postgraduates showing that education plays a vital role in enhancing knowledge about digital payment.
- **Core salaried participants**
Most of the respondents are employed hence digital payments are frequently used for financial transactions.
- **Prevalence of middle-class income**
The survey participants belong to the middle class this socio-economic class constitutes an integral element in the successful implementation of digital finance.
- **Presence of high level of awareness**
The respondents know about the Unified Payment Interface UPI reflecting the digital payment methods are popular among consumers.
- **Usage of digital payment systems**
The majority of you the survey respondents use digital payment methods regularly indicating that they have been integrated into their daily transactions.
- **Digital readiness of the respondents**
The survey participants own a smartphone and bank account which are the two key prerequisites for initiating the UPI transaction process.
- **Reliability of data and measurement scale**
The results of the reliability test suggest that there are Cronbach's Alpha value for all the values variables which prove the reliability of the gathered information.
- **Perceived usefulness**
The respondents regard the UPA system as useful and convenient before these factors become significant for forming perception of users.
- **Ease of use**
Ease of use is also an important component it becomes obvious that people like when systems are easy to operate but at the same time it has lower priority compared to usefulness.
- **Trust and security**
The impact of trust and security has moderate confidence in the digital technology.
- All the variables greatly affect adoption induction perceived usefulness ease of trust security and social influence were found to play a central role in determining behavioural intentions by regression analysis.
- **Safety** is the most influential factor for adoption intention. Security of online transactions and confidentiality of personal information are critical issues in the user's mind.
- **Positive correlation between perception and behavioural intention**
The analysis reveals that when users have a positive perception of UPI, they are more likely to adopt the technology

SUGGESTIONS

- **Upgrade security system**
As security becomes the most important aspect is necessary to implement advanced mechanism for securing transactions through encryption authentication and fraud prevention.
- **Cultivate trust in users**
Trust can be generated through reliable and consistent services that provide reliable transaction services and excellent consumer service.
- **Raise awareness**
Educating users about UPI and its advantages is essential through awareness programs.
- **Convey practical advantages of UPI**
Advantages such as convenience and speed need to be highlighted to influence users' perception.
- **User interface and experience**
To achieve user confidence and satisfaction ensure that the platform is easy to use.
- **Customer support service**
Efficient customer support services are important for gaining customer confidence.
- **Use social influence**
Refer a friend scheme and referral programs would be useful in attracting users to UPI.
- **Local system integration**
UPI needs to be compatible with local systems to gain acceptance in Dubai.
- **Regulatory and compliance**
Aligning UPI with the regulatory framework of the country will be useful.

CONCLUSION

Overall, the study demonstrates that adoption of Unified Payment Interface (UPI) in Dubai is driven by such factors as technology, psychology and society. The results revealed that respondents are highly aware, use and ready to adopt the innovation, which creates a good basis for the launch of UPI. Out of all the listed factors perceived usefulness is one of the most critical determinants of user perception, whereas security is revealed as the most critical determinant impacting users' intention to engage. In addition, the research proves "that there exists a strong positive relationship between user perception and adoption intention that means improving the perception of users can result in higher adoption. Overall UPA has good prospects in Dubai if some matters like security and trust are properly considered.

References

1. Agarwal, S., et al. (2022). User perception of digital payment systems: Evidence from convenience, trust, and security dimensions. *Journal of Digital Banking*.
2. Ashok, S., Nair, S. S., & Krishna, M. B. (2019). The Impact of Financial Inclusion in the successful implementation of Pradhan Mantri Jan Dhan Yojana (PMJDY) Schemel. *International Journal of Innovative Technology and Exploring Engineering*, 8, 406-410.
3. Rajani, K. G., Krishna, M. B., & Sujith, T. S. (2026). Work–Life Balance as a Determinant of Job Satisfaction: An Empirical Evaluation of Employees of Private Sector Banks in Kerala.
4. Singh, N. (2021). Behavioural intention towards UPI adoption: Role of perceived usefulness, ease of use, and social influence. *Indian Journal of Commerce and Management Studies*.

5. Kumar, A., et al. (2021). Adoption of Unified Payments Interface (UPI) in India: Convenience, speed, trust, and security perspectives. *Journal of Payments Strategy & Systems*.
6. Dwivedi, Y. K., et al. (2020). Re-examining technology adoption models in digital payment and financial technology research. *International Journal of Information Management*.
7. Gupta, A., & Arora, N. (2020). Understanding determinants and barriers of mobile payment adoption: Trust, perceived risk, and security concerns. *Journal of Retailing and Consumer Services*.
8. Patil, P., Rana, N. P., Tamilmani, K., & Dwivedi, Y. K. (2020). Consumer adoption of digital payments and UPI services. *Information Systems Frontiers*.