



The Interface Experience of Digital Payment Apps: An Expectation - Confirmation Perspective

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ABSTRACT

The past decade has witnessed the country steadily shifting towards a cashless economy. With the launch of multiple digital payment platforms fund transfers have become just a matter of few clicks, codes and swipes. This conceptual Paper revolves around the Expectation – Confirmation Model (ECM) to analyse the user expectations on the Visual Appeal and Interface Intuitiveness of Digital Payment Apps and its subsequent influence on user behaviour. While Visual Appeal depicts the visual aesthetics and sensorial experience, intuitive interface deals with the cognitive experience of navigating through the app with ease. The proposed model highlights that the confirmation of these user expectations can positively influence the user's perceived usefulness, satisfaction and continuance intention to use the app. The paper integrates interface design to post adoption evaluation and provides insights to digital payment app developers to design efficient, appealing and interactive interfaces to foster user satisfaction and loyalty. Future research can validate these theoretical findings through empirical studies to broaden our knowledge and understanding on the user interface of digital payment apps.

Keyword: Digital Payment Apps, Visual Appeal, Interface Intuitiveness, Expectation – Confirmation Model (ECM), Financial Transactions, Perceived Usefulness, Satisfaction, Continuance Intention.

Introduction

Remembering to carry a wallet with sufficient cash and change is no more a concern today. We've almost traded coins and notes for codes and clicks. Though Unified Payment Interface (UPI) was launched in India by the early 2016, Demonetization in November 2016 and the COVID-19 pandemic in 2020 rapidly accelerated the use of digital payments in the country making India one of the world's fastest growing digital ecosystem (Ahmed & Sur, 2023).

Today we have multiple digital payment applications like Google Pay, Paytm, BHIM, PhonePe etc. accessible to both rural and urban regions contributing to financial inclusion and India's transition towards a cashless economy (Asif et al., 2023). India's growing digital

transactions even in the post pandemic times highlight the fact that users appreciate the ease, speed and convenience of digital payments.

The digital age has not just given consumers the choice of substituting cash with digital payments, but has also given them the freedom to choose between multiple competing digital applications that offer the same payment service.

While some existing studies on digital payment apps have focused on areas like user's initial adoption intention and Hedonic Motivation by adopting theories like Technology Acceptance Model (TAM) (Jawad et al., 2022) and Stimulus - Organism -Response Model (SOR Model) (Lee et al., 2022), there are only few studies that have touched upon the user's post adoption intention to use Digital Payment Apps in the light of the Expectation – Confirmation Model (ECM). This conceptual paper aims at addressing this gap by adopting the Expectation–Confirmation Model to analyze how the confirmation of user expectations in terms of Visual Appeal and Perceived Interface Intuitiveness on Digital Payment Apps has influenced their perceived usefulness, user satisfaction and continuance intention to use the app.

Literature Review

By extending the Oliver's (1980) Expectation – Confirmation Theory (ECT) to the Information System and Technology Context, Bhattacharjee (2001) proposed the Expectation – Confirmation Model (ECM) (Bhattacharjee, 2001; Oliver, 1980). According to the Expectation – Confirmation Model (ECM) users develop pre use expectations about a technology and later assess if their actual experience met their initial expectations. This confirmation of expectations combined with perceived usefulness influences the user satisfaction which further influences their continuance intention to use the technology (Bhattacharjee, 2001).

This study examines the influence of the user expectations of Visual Appeal and Perceived Interface Intuitiveness on confirmation, satisfaction, perceived usefulness and continuance intention to use the app.

- **Visual Appeal:** Visual Appeal encompasses everything that a user sees on opening a digital payment app right from the colour combinations, icons, typography, layout and spatial arrangement (Cheng, 2025). Users might be quick to judge an app's functionality just by its looks. Therefore, Visual aesthetics play an important role in immersing the users into a pleasant sensory experience that triggers emotional and perceptual reactions. Many apps also use visual designs to create distinct brand identities through consistent colour harmony and fonts. An interesting, creative and aesthetically pleasing interface, can enhance user enjoyment, comfort and confidence with the app leading to an overall positive impression thereby enabling the initial user expectations to be met (Lee et al., 2022).
- **Example:** Digital Payment Apps like Gpay and Phone Pe use multiple icons in their interface like the QR code icon, trophy icon for rewards, checkmark (tick) icon for successful payments etc. while also strengthening their brand identity through consistent colour palettes.
- **H1a:** Visual Appeal positively influences confirmation of expectations in Digital Payment Apps.
- **Perceived Interface Intuitiveness:** Perceived Interface Intuitiveness refers to the degree to which the users can effortlessly interact with the digital payment apps. Intuitive Interfaces enable users to quickly complete their payment tasks by providing them with

easily understandable navigation structures and transaction flows(Rahardja et al., 2023). When users are able to easily scan QR codes, transfer funds, check receipts and transaction history without much cognitive load they tend to form favourable perceptions on the app(Lee et al., 2022). Such straight forward and dependable user interfaces boost the effectiveness and efficiency of the system leading to enhanced confirmation of user expectations.

- **Example:** Paytm, Gpay and other digital payment apps have user friendly interfaces that require only a few clicks and swipes. They maintain a quickly accessible list of the recently transacted people, provide a one click QR code scan or message or pay option, successful payment alerts etc. thereby making the transactions smooth and seamless.
- **H1b:** Perceived Interface Intuitiveness positively influences confirmation of expectations in Digital Payment Apps.

Perceived Usefulness, a construct adopted from the Technology Acceptance Model (TAM) indicates the extent to which a user considers that a technology boosts their task performance or productivity. According to the Expectation – Confirmation Model (ECM), when the pre usage expectations and anticipations about a technology is met by the actual usage experience then the user perceives the technology to be useful (Bhattacharjee, 2001). The Model also states that when a user finds a technology to meet or exceed the initial expectations then the user is generally satisfied with the overall functional benefits of the application (Bhattacharjee, 2001).

In the context of Digital Payment Apps, when the users believe that the app's interface is both visually appealing, and intuitive to use and navigate thereby confirming to their initial expectations they are bound to perceive the application to be useful and remain satisfied with their overall experience with it(Lee et al., 2022).

H2: Confirmation of Expectations (Visual Appeal and Perceived Interface Intuitiveness) positively influences Perceived Usefulness of Digital Payment Apps.

H3: Confirmation of Expectations (Visual Appeal and Perceived Interface Intuitiveness) positively influences Satisfaction with Digital Payment Apps.

Perceived Usefulness is a crucial predictor for satisfaction. When a user believes the digital payment applications to be helpful in making convenient, hassle- free financial transactions with just a few clicks they are more likely to be satisfied with the functional benefits offered by the application (Nurdin, 2023). This would further elicit emotional and affective responses leading to a higher level of satisfaction with digital payment apps.

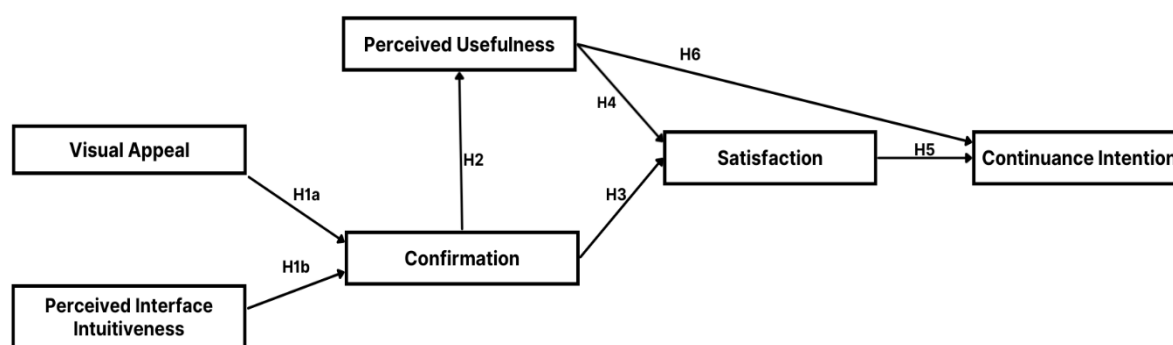
H4: Perceived Usefulness positively influences satisfaction with Digital Payment Apps.

When any technology is appealing both rationally and emotionally to a user then they have a strong tendency to continue using it in future. By ensuring extremely safe and seamless fund transfers within seconds with very minimal cognitive effort the digital payment apps offer practical value for the users (Rahardja et al., 2023). In addition to effective task performance the apps also provide the users with a very easy, pleasant, creative and interactive interface making them feel that there are zero burdens in the process. Why would any user not want to continue making such cashless, quick, and safe and smooth fund transfers every time?

Such consistent positive interactions with the digital payment apps would ultimately foster loyalty thereby making the user return to the application for all future transactions leading to a continuance intention to use digital payment apps (Nurdin, 2023).

H5: Satisfaction positively influences continuance intention to use Digital Payment Apps.

H6: Perceived Usefulness positively influences continuance intention to use Digital Payment Apps.



Practical Implications

This conceptual paper offers several practical insights and observations to digital payment applications, fintech companies, app developers and Use Interface (UX/UI) designers.

While designing digital payment apps, developers must maintain a harmony between interface intuitiveness, visual aesthetics and functionality. The interface should be designed with creative and congruous icons, typography and colour schemes (Cheng, 2025). The fintech companies can also use this as a canvas to create their brand identity through a coordinated and consistent visual appeal.

By prioritizing the visual appeal to create the user's first impression the app designers should not miss on the intuitiveness and interactivity of the interface. While the users try to operate and navigate through the app, they should experience an extremely uninterrupted flow without much cognitive load. The entire process should feel seamless without the need for much learning or thinking (Lee et al., 2022; Rahardja et al., 2023).

While creating user satisfaction through sensory (Visual appeal) and cognitive (Interface Intuitiveness) experience, developers should not forget the core purpose of a digital payment app. They should ensure proper functioning of their primary features – quick fund transfers, accurate QR code scanning, easily accessible transaction status and history etc (Nurdin, 2023). Thus, all the 3 facets of a digital payment app – Interface Intuitiveness, Visual Appeal and Functionality have to complement each other and work hand in hand to ensure user satisfaction, perceived usefulness and continuance intention to use the app.

Scope for Future Research

This conceptual paper has highlighted theoretical observations on the adoption of Expectation – Confirmation Model (ECM) to digital payment apps by analysing evidences from the existing literature. Future research can undertake empirical studies to test the hypothesized relationship using quantitative and qualitative data.

Beyond visual appeal and interface intuitiveness of digital payment apps, future research can further extend the Expectation – Confirmation Model (ECM) to test the other aspects of digital payment apps such as Security & Privacy, Gamification, Loyalty Programmes and Customer Support to name a few (Rahardja et al., 2023). Studies on Digital Payment Apps can be undertaken by adopting other theories such as the Task Technology Fit Theory or the IS Success Model.

Digital Payment Apps contain a lot of sensitive financial information of the users such as their bank account details. Research on the user's perceived risk and safety expectations can be pursued (Zhang et al., 2019). Studies on the accessibility of digital payment apps throughout the country and the technological infrastructure and internet connectivity required for the same can be conducted (Florence Sophia Ezech et al., 2023; Rahardja et al., 2023).

Research can be undertaken on the use of Artificial Intelligence and Augmented Reality in the User Interface of Digital Payment Apps in the forms of AI enabled Chatbots or AI enabled personalization etc. (Florence Sophia Ezech et al., 2023).

Conclusion

This conceptual paper elucidates the integration of the sensory and cognitive aspects of user interface design in digital payment apps. This paper has adopted the Expectation – Confirmation Model (ECM) to depict the influence of the confirmation of user expectations on Digital Payment Apps (Pleasant visual appeal and Intuitive Interface) on the perceived usefulness, satisfaction and continuance intention to use the app (Lee et al., 2022; Rahardja et al., 2023).

Presence of multiple service providers has forced Digital Payment apps to emphasize not just on whether the transactions are made (functionality) but also on how conveniently and effortlessly they can be made by users. This study highlights the role of sensory and cognitive User Interface design in post adoption evaluation and thus UI/UX designers and digital payment app developers have to focus on these aspects right from the app development and designing stage (Cheng, 2025).

To conclude, it is important for digital payment platforms to take a holistic approach by combining Visual Aesthetics, Interface Intuitiveness and Functionality to enhance user satisfaction and loyalty in the long run (Lee et al., 2022; Nurdin, 2023).

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