



EXAMINING THE ANTECEDENTS OF FINTECH ADOPTION AMONG COLLEGE STUDENTS USING UTAUT2 MODEL

Brian Benny¹, Anoop Tom Thomas², Joel James³, Sanjose Joseph⁴

^{1,3,4} B. Com Student, Department of Commerce, St. Dominic's College, Kanjirappally, Kottayam, Kerala, India

² Anoop Tom Thomas, Assistant Professor, Department of Commerce, St. Dominic's College, Kanjirappally, Kottayam, Kerala, India,

Abstract: Fintech companies use technology and innovation to provide fast, convenient, and secure financial services. However, its adoption is uneven across various demographics, affecting financial accessibility and gender equality. Antecedents of fintech adoption among Generation Z who are mostly college-going students are vacant in prior literature. This study aims to fill this gap by examining factors influencing college students' adoption of fintech. Using the UTAUT2 framework, it considers time-saving and security aspects. It also highlights new insights into college students' fintech usage.

Index Terms - Fintech, financial inclusion, gender gap, generation Z, time-saving, Unified Theory of Acceptance and Use of Technology (UTAUT2)

I. INTRODUCTION

Fintech has transformed financial transactions for individuals and businesses, offering cutting-edge systems for efficient economic transactions (Knewtson & Rosenbaum, 2020). Digital platforms and mobile devices have made fintech more accessible, offering services like online banking and investment management. Fintech products include digital financing, investments, money, payments, insurance, and financial advising (Gomber et al., 2017). Investments in fintech are projected to reach US\$210 billion by 2021 and surpass US\$305 billion by 2025 (Business Insider, 2022).

Fintech has revolutionized finance, moving from traditional to online intermediaries, enabled by internet banking (Buchak et al., 2018). Advancements like blockchain, AI, and mobile banking are reshaping the industry. The Ernst & Young Fintech Adoption Index revealed high fintech adoption rates in India and China, with 87 out of 100 consumers embracing it, compared to lower rates in France and Japan, indicating India's substantial potential for digital financial services adoption.

Fintech revolutionizes consumer finance with fast, secure alternatives to traditional payments (Thakor, 2020). It has been a disruptive force in finance since the 2000s (Leong et al., 2017). Fintech's adoption varies by demographic, impacting financial inclusion and gender gaps. This study examines fintech adoption among Generation Z college students, who are essential for fintech adoption but whose adoption factors need to be better understood. It uses the Extending Unified Theory of Acceptance and Use of Technology as a theoretical framework to investigate variables affecting their adoption, including fintech's time-saving and security aspects and its role in financial inclusion.

Some of the happenings that led to fintech adoption in India are Covid-19, demonetization, 5G technology, etc. India became the world's second-largest developing hot spot for fintech after the Covid-19 pandemic, behind the United States (Bhasin & Gulati, 2021). According to fintech companies, the number of fintech users and transactions has significantly increased throughout the lockdown period (KPMG report, 2020). The introduction of 5G technology is anticipated to alter India's banking and financial sector and give rise to a new ecosystem of fintech enterprises (Mohanasundaram et al., 2021). This study is carried out with the following research objectives:

RO1: To understand the factors that influence college students' adoption of fintech

RO2: To validate UTAUT2 as the theoretical framework while analyzing the factors contributing to fintech adoption among college students

It is anticipated that the study's conclusions would provide insightful information about the several factors influencing college students' adoption of fintech. The study's conclusions are anticipated to provide insightful information about the several factors influencing college students' adoption of fintech. Subsequent sections of this paper encompass a comprehensive review of the principal constructs, the presentation and discussion of their possible relationship, the managerial implications, and the conclusion.

2. THEORETICAL BACKGROUND AND HYPOTHESES FORMULATION

2.1 Extended Unified Theory of Acceptance and Use of Technology (UTAUT2)

The study utilizes the UTAUT2 model, which includes constructs like Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Hedonic Motivation, Price Value, and Habit. Previous studies have predominantly employed the UTAUT framework to examine the adoption of payments (Thakur, 2013). We also find that time-saving and security are important elements supporting the fintech inclusion among college students.

2.2 Review Discussion:

Fintech aids financial inclusion among college students (Ritchie, entrepreneur.com). Experts foresee Generation Z as future fintech leaders (Gomber, 2018; Prime & Carr, 2012). Our study highlights the need for more time-saving and security considerations in the UTAUT2 model, which is crucial for college students' adoption of fintech. We propose integrating Time Saving and Security alongside Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Hedonic Motivation, Price Value, and Habit to enhance understanding of fintech adoption among college students. The study's proposed framework is demonstrated in Figure 1.

2.3 Hypotheses Development

2.3.1 Performance Expectancy

Venkatesh et al. (2003) state that performance expectation predicts how using a system will improve job performance. It is a key predictor in mobile banking, e-commerce, and e-learning (Chauhan et al., 2022). Performance expectation is crucial for college students using fintech for finance and academics. Thus, performance expectancy is anticipated to positively impact college students' intention to use fintech services.

H₁: Performance expectancy has a significant effect on college students' behavioural intention to adopt fintech

2.3.2 Effort Expectancy

"Effort expectancy" refers to how simple a system is to use (Venkatesh et al., 2003). It links to intentions in mobile banking, e-commerce, and e-learning. Factors include user experience and interface simplicity (Venkatesh et al., 2012). A simple, convenient, user-friendly interface is crucial for college students using fintech. Thus, effort expectancy positively influences their fintech usage intention.

H₂: Effort expectancy has a significant effect on college students' behavioral intention to adopt fintech

2.3.3 Social Influence

Social influence refers to an individual's perception of others' expectations regarding system use (Thomas & Joseph, 2021). Social-cognitive factors, like considering significant individuals' opinions, predict behavior (Venkatesh et al., 2003). In fintech, social influence, including normative pressure and subjective norms, shapes college students' intentions to adopt fintech services. Overall, social influence is likely to positively impact students' inclination toward utilizing these financial technologies.

H₃: Social influence has a significant effect on college students' behavioural intention to adopt fintech

2.3.4 Facilitating Conditions

Facilitating conditions refers to the extent to which individuals believe in organizational and technological frameworks supporting system use (Venkatesh et al., 2003). In fintech, conditions include reliable internet, mobile devices, accessible platforms, and technical support, leading to college student adoption (Chan et al., 2022). However, the adequacy of facilitating conditions can vary depending on fintech service types and students' preferences. Thus, Facilitating Conditions positively influences their fintech usage intention.

H4: Facilitating conditions has a significant effect on college students' behavioural intention to adopt fintech

2.3.5 Hedonic Motivation

Hedonic motivation refers to the pleasure or delight one gets from using technology (Brown & Venkatesh, 2005). It is a critical element of the UTAUT2 model, explaining consumer behavior (Kokkinou et al., 2021). Fintech, offering features like gamification and personalization, can enhance user experience. With features like gamification and personalization, Fintech enhances user experience, predicting the intention to use mobile banking and e-commerce (Zhou, 2012; Chen et al., 2019; Al-Adwan et al., 2013). Thus, hedonic motivation likely positively influences college students' intention to use fintech services.

H5: Hedonic motivation has a significant effect on college students' behavioural intention to adopt fintech

2.3.6 Price Value

Price has been recognized as a critical factor in determining whether people will adopt mobile technology (Venkatesh et al., 2012). Perceptions of price reductions vary, with some viewing them as fixed and others as relative (Tak & Panwar, 2017). In fintech, price value is assessed by cost savings, convenience, and rewards compared to traditional financial services (Alalwan et al., 2020). Customers are likely to find the price reasonable if the benefits outweigh the costs (Teo et al., 2014), positively impacting their intention to use fintech services.

H6: Price Value has a significant effect on college students' behavioural intention to adopt fintech

2.3.7 Habit

The introduction of habit as a factor in technology usage, alongside behavioral intention, is a key advancement in UTAUT2 (Tamilmani et al., 2019). Habit refers to learned behaviors that can influence technology usage independently of intention (Limayem et al., 2007). In the context of technology acceptance, the habit can influence the use of technology beyond the intention or motivation of the user (Tamilmani et al., 2019). Hence, the habit will positively shape the intention of college students to utilize fintech services.

H7: Habit has a significant effect on college students' behavioural intention to adopt fintech

2.3.8 Time Saving

We include time-saving in UTAUT2, which is crucial for fintech adoption among college students. Unlike banks, Fintech offers quick access to money (Banu, Sep 2022). Time-saving is the perceived efficiency gain from using a system compared to traditional methods. It stems from fintech's features like instant transactions and automation. In fintech adoption, time-saving impacts perceived usefulness and user intention (Tamilmani et al., 2021). Thus, time-saving is expected to positively influence college students' intention to use fintech services.

H8: Time-saving has a significant effect on college students' behavioural intention to adopt fintech

2.3.9 Security

Finally, we added security to UTAUT2. Studies on mobile payments show a robust positive link between perceived security and trust (Khalilzadeh et al., 2017). Security is closely tied to trust and inversely related to risk (Harris et al., 2016; Kim et al., 2008). Students who perceive fintech services as secure and protective of their personal and financial information are more likely to adopt them. Conversely, adoption is less likely if they see services as insecure and prone to cyberattacks or fraud. Thus, security significantly influences college students' intention to use fintech services.

H_9 : Security has a significant effect on college students' behavioural intention to adopt fintech

Figure 1 shows the proposed hypothetical model.

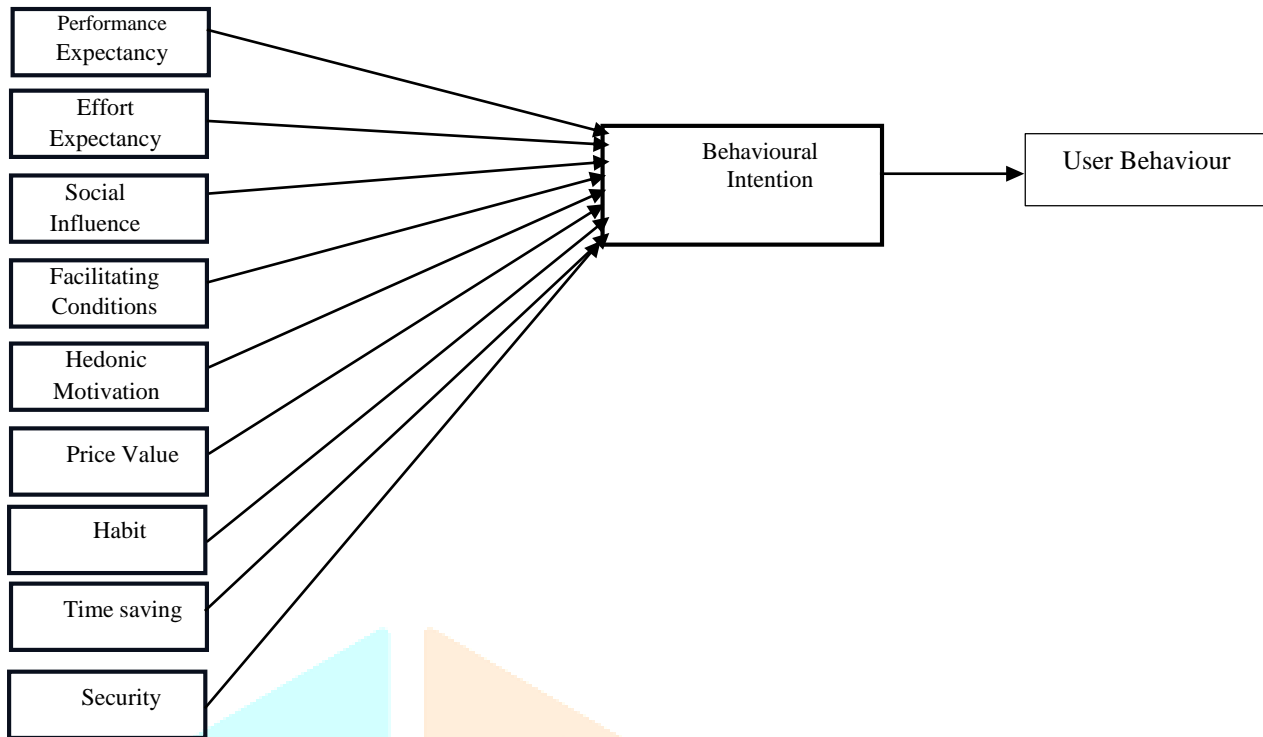


Figure 1: Research Model
Source: authors

3. MANAGERIAL IMPLICATIONS

The study highlights the importance of performance expectancy, effort expectancy, social influence, hedonic motivation, price value, habit, time-saving, and security in influencing college students' intention to use fintech services. Managers should focus on enhancing these factors to increase adoption. They can emphasize simplicity, effectiveness, security, and cost savings, provide user-friendly interfaces, and leverage social influence. Making services enjoyable, offering competitive pricing, providing incentives, and encouraging habit formation are also effective strategies. Behavioral intention moderates the relationship between these factors and usage, so managers should improve intention and support usage with feedback and support. These implications can guide managers in developing and promoting fintech services for college students.

4. CONCLUSION

The paper investigates the factors leading to fintech adoption among college students by enhancing the UTAUT2 model with time and security as new factors and behavioral intention as a moderating variable. It proposes a conceptual framework based on literature studies and theoretical analysis, setting forth a series of hypotheses.

The study contributes to fintech adoption research by extending the UTAUT2 model with under-researched topics, defining and examining the new elements of time and security, and exploring behavioral intention's moderating role. These factors are significant for college students' fintech adoption.

For managers and practitioners, the paper implies that improving performance expectancy, facilitating conditions, effort expectancy, social influence, hedonic motivation, price value, habit, time-saving, and

security can influence students' behavioral intention and actual fintech service usage. It also advises on the importance of converting behavioral intention into use behavior.

In summary, the research examines fintech adoption antecedents among college students using an expanded UTAUT2 model. It finds that behavioral intention significantly moderates the relationship between the identified factors and usage behavior and that these factors positively affect behavioral intention. The paper acknowledges its limitations and discusses the potential value of its findings for future research and practical fintech applications.

5. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

The paper has a few drawbacks that offer ideas for future research possibilities. While it offers a conceptual approach, utilizing real data from college students through quantitative or qualitative methods could enhance understanding. Exploring additional theoretical frameworks like TAM or DOI alongside the existing ones could enrich the analysis. Expanding the focus beyond college students to include professionals, entrepreneurs, and consumers would offer a broader perspective on fintech adoption.

REFERENCE

- Adikari, K. E., Shrestha, S., Ratnayake, D. T., Budhathoki, A., Mohanasundaram, S., & Dailey, M. N. (2021). Evaluation of artificial intelligence models for flood and drought forecasting in arid and tropical regions. *Environmental Modelling & Software*, 144, 105136.
- Al-Adwan, A., Al-Adwan, A., & Smedley, J. (2013). Exploring students' acceptance of e-learning using Technology Acceptance Model in Jordanian universities. *International Journal of Education and Development using ICT*, 9(2).
- Bhasin, N. K., & Gulati, K. (2021). Challenges of COVID-19 During 2020 and Opportunities for fintech in 2021 for Digital Transformation of Business and Financial Institutions in India. In *E-Collaboration Technologies and Strategies for Competitive Advantage Amid Challenging Times IGI Global*, 282-299
- Buchak, G., Matvos, G., Piskorski, T., & Seru, A. (2018). FinTech, regulatory arbitrage, and the rise of shadow banks. *Journal of Financial Economics*, 130(3), 453–483.
- Chauhan, V., Yadav, R. & Choudhary, V. Adoption of electronic banking services in India: an extension of UTAUT2 model. *J Financ Serv Mark* 27, 27–40 (2022).
- Gomber, P. (2018). On the FinTech revolution. *Journal of Management Information Systems*, 35(1), 220–265.
- Harris, M. A., & Chin, A. G. (2016). Consumer trust in Google's top developers' apps: An exploratory study. *Information and Computer Security*, 24(5).
- Khalilzadeh, J., Ozturk, A. B., & Bilgihan, A. (2017). Security-related factors in extended UTAUT model for NFC based mobile payment in the restaurant industry. *Computers in Human Behavior*, 70(2017), 460–474.
- Kim, D. J., Ferrin, D. L., & Rao, H. R. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision Support Systems*, 44(2), 544–564.
- Knewton, H.S. and Rosenbaum, Z.A. (2020), Toward understanding FinTech and its industry, *Managerial Finance*, Vol. 46 No. 8, 1043-1060.
- Leong, C., Tan, B., Tan, C., Xiao, X., & Sun, Y. (2017). Nurturing a FinTech ecosystem: The case of a youth microloan startup in China. *International Journal of Information Management*, 37(2), 92–97.
- Tak, P., & Panwar, S. (2017). Using UTAUT 2 model to predict mobile app-based shopping: evidences from India. *Journal of Indian Business Research*
- Tamilmani, K., Rana, N. P., Wamba, S. F., & Dwivedi, R. (2021). The extended Unified Theory of Acceptance and Use of Technology (UTAUT2): A systematic literature review and theory evaluation. *International Journal of Information Management*, 57, 102269.
- Teo, T., & Noyes, J. (2014). Explaining the intention to use technology among pre-service teachers: a multi-group analysis of the Unified Theory of Acceptance and Use of Technology. *Interactive Learning Environments*, 22(1), 51-66.
- Thakor, A. V. (2020). Fintech and banking: What do we know? *Journal of Financial Intermediation*, 41,

Thomas, A. T., & Joseph, A. K. (2021). Role of tie strength in word-of-mouth receptiveness and movie promotion: Evidence from Indian motion picture industry. *J. Tianjin Univ. Sci. Technol*, 54, 556-573. DOI: 10.17605/OSF.IO/Y9CM4

Venkatesh, V., Thong, J. Y., & Xu, X. (2012). Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology. *MIS quarterly*, 157-178.

