



Financial Technology Adoption of Bank Customers: A Review

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Abstract

The adoption and use of information technology and information system innovations in banking sector have been a key apprehension for research and practice. Many studies have used approaches such as Theory of Reasoned Action, Technology Acceptance Model and Unified theory of acceptance and use of technology to study the adoption of financial technology. The aim of this study to present the critical review on previous studies which are focusing on adoption of financial technology and the finding on influence of constructs on using the available technologies in banking sectors to get services. Specifically, it is focused on bank customer's financial technology adoption. Results from previous studies on financial technology adoption reveals that constructs of Theory of Reasoned Action, Technology Acceptance Model and Unified theory of acceptance and use of technology contributed to Behavioral Intention to adopt and use its applications.

Key Words: Financial Technology, Adoption, Bank Customers

I. Introduction

The public and financial sectors are quickly adopting the digital era, now enhancing operational activity efficiency and customer service quality. Information technology has completely changed the way that banks function and provide customer care in the banking sector. Banks have made significant investments in ICT to supply a variety of value-added goods and services to keep up with global growth, enhance customer service, and lower transaction costs. It significantly influences the creation of more adaptable and user-friendly financial services (Aliyu & Tasmin, 2012).

Information and financial technologies have been combined to develop Financial Technology as a result of technological advancement. Digital technology known as fintech, which has big data, smart investment counseling, and a block chain core, is extensively employed in the financial industry. It offers new financial service points that boost transactional payment schemes' efficiency. The financial services sector undergoes a transformation from conventional financial services to Fintech-based innovation offerings. Consequently, it offers a wider variety in the area of financial services, ranging from designed items to existing services and marketplaces. (Hoang et.al., 2021)

Financial services are now made available to the public at a lesser cost than with traditional banking techniques because to the utilization of information technology developments in

banking through digital platforms. The emerging financial sector known as "fintech" uses technology to enhance financial operations (Schueffe, 2016). The emergence of fintech, which is seen as disruptive innovation, has transformed the market and revolutionized the operations of conventional financial institutions (Mutiara et.al., 2019). Integration of e-finance innovation, internet technology, social networking services, social media, artificial intelligence, and large analytic data was a defining feature of the evolution of financial technology (Suryono et.al., 2020).

The customer has desired to conduct personal banking transactions in a convenient manner without physically visiting the bank, and they must be confidence in the services offered by the banks. Conducive, adaptable, and secure elements are influencing customers' attitudes towards adopting financial technology (Lal, et.al.,2020). Therefore, the aim of this study is to assess the studies those have investigated the factors influencing on adoption financial technology of bank customers.

II. Materials and Methods

This paper has used Systematic Literature Review aiming to gather and assess the available related literatures to the subject area of interest. The goal of a systematic literature review is to create evidence-based recommendations that will aid professionals working in the field of study, not only to compile the current works on the subject (Kitchenham, 2004). A comprehensive literature review should look into the state of the art with regard to the research subject in order to show how the study adds to the body of information already known (Levy and Ellis, 2006). To this end, previous studies are identified and examined from differed sources of databases by considering their relevancies. For this review work methods and major finding 36 literatures are assessed.

III. Previous Studies

This study uses 36 articles that were identified from electronic databases/sources. We found that financial technology adoption correlated with variables such as Perceived usefulness Social influence, Trust, Perceived ease of use, Personal Innovativeness, Security Concern, Performance Expectancy, Effort Expectancy, social influence, Facilitating Condition, Hedonic Motivation, Perceived value, Habit, Awareness, Social influence, Compatibility, Trialability , Observability, Financial risk, Legal risk , Operational risk, Security risks, Attitude, Financial literacy, User innovativeness, Utility, Socio-Economic Influencers , Mobile Device Trust, Youth, Organizational Factor, Technological Factor, Strategic Factor, Functional Factor , Economic Factor, Brand Image and Subjective norm.

Table 1: Variables on Previous Studies

| Name and Year | Variables |
|----------------------|--|
| Lien, et al. (2020) | Perceived usefulness, Social influence, Trust and Perceived ease of use |
| Tun-Pin et al.(2019) | Perceived Ease of Use, Perceived Usefulness, Social Influence, Personal Innovativeness, Security Concern and Perceived Enjoyment |
| Raza, et al. (2018) | Performance Expectancy, Effort Expectancy, social influence, Facilitating Condition, Hedonic Motivation , |

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| | Perceived value and Habit |
| Saksonova & Merlino (2017) | Awareness |
| Jin. et al. (2018) | Perceived usefulness, Ease of use, Relative advantage, Perceived risk, Perceived cost, and Awareness |
| Hasan, et al. (2021) | Safety, Risk , Trust, Perceived Ease of Use, Perceived Usefulness, Perceived value earned and Perceived value loss |
| Chan et.al. (2022) | Performance expectancy , Effort expectancy, Perceived risk , Initial trust and Social influence |
| Tiong (2020) | Perceived usefulness, Perceived ease of use, Social influence, Compatibility, Trialability and Observability |
| Keong, et al. (2020) | Financial risk, Legal risk, Operational risk and Security risks |
| Slazus & Bick, (2022) | Utility , Socio-Economic Influencers, Mobile Device, Trust, Youth, Perceived Risks and Associated Costs |
| Setiawan et.al (2021) | Attitude, Financial literacy and User innovativeness |
| Kurniawan (2019) | Trust, Perceived benefit , perceived risk, Usefulness and Ease of Use |
| Mwiya et.al.(2017) | Perceived usefulness, Perceived ease of use, Trustworthiness and Attitudes |
| Abu-Shanab(2011) | Performance expectancy , Social influence, Self-efficacy , Perceived trust and Locus of control |
| Jerene & Sharma (2019) | Perceived financial risk , Perceived ease of use, Perceived usefulness, Perceived financial trust, Subjective norm and Awareness |
| Lule, et.al (2012) | Perceived ease of use, Perceived usefulness, Attitude, Perceived credibility, Transaction cost and Perceived self-efficacy |
| Shaikh et.al (2020) | Perceived ease of use , Perceived usefulness, Consumer innovativeness, Self-efficacy and Subjective norms |
| Kallanmarthodi & Vaithyanathan, (2012) | Perceived Usefulness, Perceived Ease of Use and Perceived Risk |
| Yu (2012) | Performance expectancy, Effort expectance, Social influence, Perceived credibility, Perceived financial cost and Facilitating conditions |
| Chitungo & Munongo (2013) | Perceived ease of use, perceived usefulness, Relative advantages, Perceived risk, Personal innovativeness, |

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|-------------------------------|---|
| | Social norms, and Perceived cost |
| Hakkak, et al. (2013) | Quality of the internet connection, Awareness, Social influence, Computer self-efficacy, Trust and Resistance |
| Amin (2009) | Perceived usefulness, Perceived ease of use Perceived credibility, social norm, and perceived enjoyment |
| Abdinoor & Mbamba (2017) | Individual awareness, perceived usefulness, perceived benefits and cost effects |
| Al-Ajam & Md- Nor, (2013) | Perceived ease of use, Perceived usefulness, Compatibility ,Trialability and Attitude |
| Raza & Hanif (2013) | Perceived usefulness Information , Perceived risk Security and privacy and Government support |
| Saleem & Rashid, (2011) | Organizational Factor, Technological Factor, Strategic Factor, Functional Factor and Economic Factor |
| Roy & Sinha (2014) | Perceived Ease of Use, Perceived Usefulness, Perceived Credibility, Perceived Risk and Customer Attitude |
| Hsu, et al. (2011) | Perceived Usefulness, Perceived security, Perceived cost Subjective norms |
| Sair & Danish (2018) | Performance Expectancy, Effort Expectancy and Personal Innovativeness |
| Khatun & Tamanna (2020) | Performance Expectancy , Effort Expectancy, Social Influence , Facilitating Condition ,Perceived Reliability, Added Value , Self, Efficiency, and Nervousness |
| Slazus & Bick, (2022) | Perceived Usefulness, Perceived Ease of Use, Trust, Self-Efficiency, Economic Benefit, Social Influence, Perceived Risk and Perceived Use of Cost |
| Porselvi, et.al (2018) | Perceived usefulness, Perceived ease of use, Attitude , Social Influence and Awareness |
| Kiranga & Chotiyaputta (2021) | Performance Expectancy, Effort Expectancy Social Influence, Facilitating Conditions and Culture |
| Al-Smadi (2012) | Perceived usefulness, Perceived usefulness, Perceived ease of use, Attitude and Uncertainty avoidance |
| Yaghoubi & Bahmani(2010) | Perceived ease of use, Subjective norm, Perceived behavioral, Perceived usefulness, and Attitude variables |
| Hoang et.al (2021) | Brand Image, Trust, Perceived usefulness, Perceived ease of use, Perceived risk, User innovativeness and Attitude |

IV. Discussion

Previous studies identified that Perceived ease of use, perceived usefulness, social influence, personal innovativeness, security concern, trust, risk, safety, Self Efficacy, Perceived Credibility and perceived enjoyment have a positive and significant relationship with intention to adopt financial technology adoption (Lien, et al., 2020; Tun-Pin et.al., 2019; Hasan, et al., 2021; Kurniawan, 2019; Jerene & Sharma 2019; Lule, et al., 2012; Shaikh et.al., 2020).

The empirical evidence of studies shows that variables such as performance expectancy, effort expectancy, social influence, facilitating Condition, hedonic motivation, perceived value, habit except for social influence have a significant positive effect on the intention which results in actual usage of banking technologies (Raza, et al., 2018; Chan et.al., 2022; Abu-Shanab,2011; Khatun & Tamanna, 2020).

Awareness of bank customers on the implementation of information technologies has significant role. An investigation by (Saksonova & Merlino, 2017) revealed that, there is weak adoption of the innovation because of lack of awareness of bank customers on new financial technology products. In addition to this, compatibility, observability and adaptability are identified as influencing factors on the behavioral intention to adopt digital banking services (Tiong, 2020) (Al-Ajam & Md-Nor, 2013). Factors such as financial risk, legal risk and operational risk have identified as a significant and negative effect on the intention to use FinTech (Keong, et al. 2020).

A study by Slazus & Bick, (2022) revealed that, the enabling factors that are positively influenced FinTech acceptance of customers were utility, socio-economic influencers, mobile device trust and youth whereas the inhibiting factors are Perceived Risks and Associated Costs. Customer's Innovativeness and attitude including financial literacy are identified as a predictor and have effect on the adoption of Fintech. Improvement of ICT infrastructure is crucial for fintech inclusiveness. So, the government needs to accelerate the ICT infrastructure. (Setiawan et.al, 2021).

Individual intention to adopt mobile banking was significantly influenced by Performance expectancy, Effort expectance, Social influence, Perceived credibility, Perceived financial cost, facilitating conditions, Social norms, Personal innovativeness, financial literacy, attitude and Relative advantages but self-efficacy and subjective norms are found not to be influential (Kallanmarthodi & Vaithiyanathan, 2012; Yu ,2012; Chitungo & Munongo, 2013; Amin ,2009; Abdinoor & Mbamba, 2017; Roy & Sinha, 2014; Hsu, et al., 2011; Kiranga & Chotiyaputta, 2021; Shaikh et.al , 2020)

Information of internet banking, perceived risk, security, privacy, Economic Benefit, Attitude, Brand Image, Trust, Uncertainty avoidance and government support have effect on customers in adoption of internet banking services (Raza & Hanif, 2013; Slazus & Bick, 2022; Porselvi, et al., 2018; Al-Smadi, 2012; Yaghoubi & Bahmani, 2010; Hoang et.al, 2021; Hakkak, et al., 2013). Factors such as organizational, technological, strategic, functional and economic have influence on adoption of banking technologies (Saleem & Rashid, 2011).

V. Conclusion

Most of the studies has used structural equation model to study the relationship between financial technology adoptions and factors that have influencing on it. This previous studies

have used constructs of different approaches such as Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM) and Unified theory of acceptance and use of technology (UTUAT). External and internal factors also have influence on using technologies. The identified factors have significant influence on behavioral intention and actual usage of banking technologies of bank customers. Therefore, as investigated the finding of studies shows those explained factors have association with adoption of financial technologies.

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