International Information and Engineering Technology Association

Advancing the World of Information and Engineering

Exploring User Acceptance of Digital Payments in India: An Empirical Study Using an Extended Technology Acceptance Model in the Fintech Landscape

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ABSTRACT

India has experienced a significant digital payments transformation, driven by technological advancements, smartphone penetration, and government initiatives. This research explores the role of digital payments and mobile payments in India's Fintech revolution. Using an extended technology acceptance model, the study investigates user acceptance and perceived usability. The research identifies factors influencing perceived usefulness, behavioral intention, and actual usage of digital payments. Four constructs—Financial Literacy, Trust and Privacy, Service Quality, and Perceived Ease of Use—are analyzed using structural equation modeling. The results show the growing adoption of digital and mobile payment platforms like Paytm, Google Pay, and PhonePe, even among financially excluded segments. However, financial literacy does not directly impact digital payment acceptance. The study concludes that digital and mobile payments have disrupted the payment landscape in India, bringing efficiency and simplicity. Enhancing financial literacy is crucial for wider adoption. The findings contribute insights for businesses, policymakers, and users in leveraging the benefits of digital and mobile payments during India's Fintech revolution.

1. INTRODUCTION

1.1 Overview of financial technology (FinTech)

Financial technology makes the use of technology to improve and computerize the supply of various financial services. Financial technology, also known as Fin Tech, is becoming a popular trend among young people. Currently, a slew of startups are offering various Fin Tech services, and some of them are even listed on the Indian stock exchange. These companies offer a range of services on a single platform, such as wealth management, money transfer, insurance services, personal and business financing, and so on. Some companies are also attempting to obtain banking licenses from the Reserve Bank of India (RBI). The government is also promoting digitization and focusing on increasing financial inclusion among citizens, and Fin Tech firms are bringing these initiatives together. This has encouraged the growth of these Fintech ventures to build unified software platforms with the goal of taking Indian population into the digital age.

1.2 Government initiatives and growth of FinTech in India

Indian government started the Pradhan Mantri Jan-Dhan Yojana (PMJDY) in 2014 with the primary objective of promoting financial inclusion throughout the country. The scheme aimed to ensure universal access to banking services by requiring every household to have at least one bank account.

It also facilitated the direct transfer of government program benefits to individuals.

In line with this initiative, the Indian government introduced the Digital India campaign to ensure the accessibility of government services through electronic means. The campaign focused on enhancing online infrastructure, internet connectivity, and digital literacy to empower the nation digitally.

India has witnessed the highest rate of fintech adoption globally, with over 67 percent (2100+) of fintech firms established in the country in the past five years [1]. According to the Invest India report of 2022 [2], Indian fintech firms were valued at \$50 billion in the fiscal year 2020 and are projected to reach \$1.3 trillion by 2025. It is estimated that in India fintech industry will grow at CAGR (compound annual growth rate) of 31% from 2021 to 2025.

Technology for lending is anticipated to add 47 percent (\$616 billion), accompanied by insurance tech at 26 percent (\$339 billion), and electronic payments at 16 percent (\$208 billion). Insurance tech, with a CAGR of 57 percent, is the quickets expanding fintech sub division in perspective of market gains, accompanied by investment tech (44%) and fintech SaaS (40%).

Financial transactions are projected to increase by 20 percent annually from 2019 to 2023, from \$66 billion to \$138 billion [3]. The Indian fintech landscape encompasses lending, personal finance management, payments, insurance technology, wealth technology, regulatory technology, and

other sub-segments. The fintech sector in India has experienced exponential growth.

During the 2019-2021 economic slowdown, the number of new entrants into the Fin tech sector decreased. Established fin tech firms are restructuring and changing their strategy by developing super apps. Meanwhile, traditional bankers are recalibrating their strategies by expanding their digital offerings, with an emphasis on lifestyle banking and specific sub-segments such as millennial, underserved, and micro, small, and medium enterprise (MSME) customers. Fintech firms use cutting-edge technologies to innovate their products in order to create product differentiation in the market. Mobile wallets, the Internet of Things, block chain, artificial intelligence, and other technologies are examples of these technologies [4]. These technologies are expected to be more secure, user-friendly, and efficient than traditional forms of service delivery. Thanks to technological advancements, large financial transactions can now be completed without the intervention of a human [5].

1.3 Synergistic impact of external factors on India's FinTech growth and technological advancements in the banking industry

External factors such as demonetization, pandemics, and the government's digitalization efforts have collectively contributed to the growth of India's fintech sector. Fintech firms focus on technological and process innovation to deliver customized financial services, resulting in enhanced customer experiences [6, 7]. These companies are technologically advanced, processing information faster, securely, and in a cost-effective manner [8]. By offering unique products and a combination of services, fintech firms can influence customers' attitudes and behaviors towards financial services. The Financial Stability Board has defined fintech as technology-facilitated financial revolution involving innovative business simulations, applications, products, or processes that impact financial institutions and markets [9]. Technological advancements in fintech have the advantage to make fundamental financial services more accessible, convenient, and secure [10]. It has been projected that fintech has the capacity to increase emerging economies by $3.7 trillion by 2025 [11].

Fintech has made financial service consumption more convenient by providing innovative applications for various financial products and services. Consumers are increasingly interested in technology-based financial solutions, and fintech firms are responding to these demands by offering more accessible and cost-effective approaches to borrowing, transferring, and investing money. Fintech is not limited to banking or investment services; it is being embraced by a wide range of industries that seek to innovate and provide financial services within their existing systems. However, despite the numerous advanced fintech service providers, inclusion of fintech services is still relatively low.

The banking industry has historically played a significant role in driving modern developments. After the 2008 financial crisis, the use of digital communication in the banking industry increased significantly. The advancement and expansion of information and communication technology (ICT) have led to a digital revolution in banking, with financial institutions outsourcing non-core activities to other firms to maintain competitiveness and increase profitability. This has resulted in a surge in the number of fintech firms in India. Financial institutions are striving to differentiate their products from competitors by developing innovative processes that streamline and expedite their employees' tasks. Any gaps or limitations in the traditional delivery of financial services are driving the creation of new fintech processes.

This paper focuses on financial technology adoption behavior of individuals using a technology acceptance model (TAM). This paper studies the role of various factors affecting their association to acceptance of Fin tech services in general. Technology acceptance model best explains the user adoption of technology-based products and therefore the same is used here. The study findings can help various fin tech companies develop marketing strategies for deepening their product reach. This will also help these companies understand how to change users' behavioural intentions by regulating influencing aspects when providing technological products to them.

2. LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

Technology advancements, such as e-financing and mobile technology, have given a push for financial system reformation, resulting in a paradigm shift in the finance industry. As a result, firms in this industry are increasingly inclined toward technologically driven processes that are fraught with opportunities and challenges. FinTech services now go across banking and other outdated financial services. They are currently focusing on various innovative technologies to understand customer's needs and demands and to customize the products to meet those needs. In a nutshell, they are now focusing more on the consumer. FinTech services are carrying the potential to increase productivity, minimize risk, increase accuracy, and support inclusive growth as per the RBI report 2020 [12].

Furthermore, these kinds of technological advancements have the potential to significantly affect traditional business representations in the highly controlled financial services business [12]. This is straightforwardly accomplished through the use of unpretentious and real-time insights, easy-to-understand design, and better openness in delivering information. Technology Adoption Model (TAM) gives insight to measure accurately and efficiently in forecasting and clarifying the adoption of information technology, Internet-based information organizations, B2B & B2C e-services, and C2C e-services. TAM theories are suitable to investigate employer perception for FinTech service acceptance and use, as they are significant factors of technology use [13, 14]. The TAM model focuses on the antecedents of technological use, which are social attributes, technological attributes, and adoption characteristics. It considers mental attitude, succeeding recognition and use of knowledge to derive the behavioral characteristics of perception of ease of use and usefulness of technology. Previous researchers also concluded that user initiative toward new technology adoption and intention to use it were primarily affected by two major factors: perceived usefulness and perceived ease of use. Several researches have validated the TAM as a strong background for thoughtful user adoption of technology in variable settings, containing banking technology, online games, e-commerce, online games, email, school information, and communication technology incorporation educational technology and email, etc. [15].

According to TAM model, individuals' usage pattern highly

depends on their behavioral intention. The rate of technological innovation in financial services, in comparison to the degree of consumer consciousness, has a substantial impact on a person's behavioral intention. Furthermore, FinTech firms may be unable to realize the advantages of innovation to gain revenues will raise if technological innovation outpaces consumer awareness and use. Other factors that influence behavior intentions include performance expectations, effort expectations, and social influences. The current study's behavioral attribute of social influence is derived from the unified theory of technology acceptance and usage of technology model [16].

2.1 Financial literacy

Financially knowledgeable individuals are those who possess a comprehensive understanding of various personal finance concepts and facts [17]. Being financially literate involves the ability to read and evaluate financial statements, allowing individuals to effectively manage and communicate financial scenarios [18]. In societies, particularly in developing countries, there is a pressing need to educate young people about non-debt financial instruments available in the market. This can only be achieved through financial literacy education, as it equips individuals with the required knowledge and abilities [19].

Individuals with low levels of financial literacy and limited knowledge about different financial products often refrain from utilizing such products [20]. This poses challenges for economically disadvantaged segments of the Indian population, who struggle with financial obligations and face difficulties accessing and utilizing available financial services. Due to their lack of financial literacy, these individuals become vulnerable to non-standard financial services provided by money lenders. Raising awareness among rural youth can facilitate a transition from non-standard financial services to standard financial services, increasing their understanding of conventional and derived financial services [21].

Financial literacy empowers individuals with the knowledge and skills needed to evaluate complex financial products and make informed decisions, enabling them to make the most of available opportunities. Financially literate individuals are better equipped to select the best financial offerings in the market and utilize fintech services more effectively than those who lack financial literacy. Therefore, it can be hypothesized that:

H1: Financial literacy of Fintech services has a significant impact on Perceived ease of use of Fintech services

2.2 Trust and privacy

Privacy can be defined as the right of individuals, institutions, and groups to control the transmission of data about them, including when, how, and to what extent it is conveyed [22]. It is a legal concept that relates to an individual's right to be left alone. Due to the value individuals place on privacy, most customers are hesitant to disclose all of their personal information to online service providers unless they have established trust. Davies identified four types of privacy: communicative privacy, territorial privacy, informational privacy, and bodily privacy [23]. Many online service providers have been found to violate informational privacy, which refers to an individual's ability to manage information about themselves. Invasion of privacy occurs

when individuals lack significant control over their personal information and how it is used. Different individuals may have varying reactions to privacy concerns, which can be influenced by cultural differences, personal experiences, and perceptions of technology and privacy protection measures [24].

Information security is crucial in the online environment due to threats such as misuse of personal and financial information and phishing attacks. The three main components of information security are confidentiality, integrity, and availability. These components form the foundation of the CIA (Confidentiality, Integrity, and Availability) security model, which serves as a benchmark for evaluating information security systems, including e-commerce transactions [25]. Breaches in the security system can occur due to intentional or unintentional actions of individuals or technical vulnerabilities. Confidentiality ensures that authorized users are provided with identification and access controls to prevent unauthorized access or disclosure of information. Integrity focuses on the reliability and accuracy of information, while availability ensures that information can be delivered, processed, and stored so that it is accessible when needed [26].

As FinTech firms aim to create leaner and more efficient organizations through initiatives like retrenchment, outsourcing, and distributed architecture, the security of information systems becomes increasingly important. Organizations must ensure that their systems are well-developed to protect user information and establish trust. Users need to be made aware of the security measures in place to instill confidence in the systems [27].

Based on the above arguments, we can develop the hypothesis that:

H2: Trust and Privacy of Fintech services has a significant impact on Perceived ease of use of Fintech services

2.3 Service quality

Effective communication plays a crucial role in building strong relationships between fin tech firms and consumers. Prompt resolution of any customer issues through customer service support is essential. By providing assistance, fin tech firms can alleviate customer anxieties, especially in potential problem situations such as financial risks or losses. Maintaining the safety of customer investments is a priority for fin tech firms to enhance customer trust and loyalty. Developing checkpoints based on past experiences can help prevent customers from unintentional errors, further strengthening their confidence in fin tech firms. Superior service, customization, and timeliness are key factors that differentiate fin tech firms from traditional financial institutions. Service assurance is another aspect that customers seek when dealing with fin techs, particularly in terms of the security of their personal information and financial transactions. Fin tech firms continuously enhance their technologies to reduce perceived risks, fraud, and data breaches. They employ various secure measures such as encryption, virtual keyboards, biometric identification, and one-time password generation. Instilling trust in users involves transparently disclosing security measures, including credentials from regulatory or third-party service providers. Safety and trust significantly influence the perception of a relevant customer experience.

In today's fast-paced, technologically driven world, time is highly valued. Customers increasingly prefer fin tech services over traditional brick-and-mortar stores due to the ease, speed,

and security associated with new technologies. Timeliness in service delivery is an important component of customer satisfaction. The speed at which customer issues are resolved reflects the productivity and efficiency of fin tech firms. The quality of services provided by fin tech firms positively influences customers' behavioral intentions to engage with these firms.

H3: Service quality of Fintech services has a significant impact on Perceived ease of use of Fintech services

2.4 Perceived ease of use

Perceived ease of use implies to degree to which customers believe at ease and put up an effort to learn and use fin tech services. Fin tech service providers are primarily concerned with providing better and faster service with agility to fulfil customers needs. One of the best important aspects of TAM is perceived ease of use. The primary factor determining user adoption of Fin tech is the financial institution's business weakness in meeting customized needs and the ease of use of Fin tech [28], Earlier studies have shown that perceived ease of use is having considerable effect on users behavioral intentions toward adopting new technology [29]. Customers are more probable to practice fin tech services if the technology used by fin tech firms is more convenient, user-friendly, and simple to use [30]. The behavioral intent to use any technology has a negative impact on the technology's complexity of use. During implementation, TAM, Theory of Planned Behavior, and Decomposed Theory of Planned Behavior models discovered that perceived ease-of-use is having a positive effect on perceived usefulness [31].

H4: Perceived ease of use has a positive impact on perceived usefulness while using Fin tech services

2.5 Perceived usefulness

Perceived usefulness, as defined in the Technology Acceptance Model (TAM), refers to a person's conviction that employing technology will help them perform better [32]. It is a crucial construct in the TAM model, as it determines the adoption of technology. Previous research has consistently demonstrated the significant influence of perceived usefulness on technological adoption. Individuals assess the utility of the technology and, if convinced that its adoption will bring benefits in terms of effort, time, and cost, they are more willing to embrace and employ technology. In the context of FinTech, researchers have found that perceived usefulness has a positive impact on users' intentions to adopt FinTech services [33].

One of the key advantages of FinTech is its ability to extract customer data and create customer profiles, enabling a better understanding of customer needs [34]. Studies have shown that factors such as life expectancy and financial literacy significantly influence millennials' intentions to adopt FinTech services [35]. Perceived usefulness encompasses the benefits that customers perceive and the long-term advantages they derive from shopping online. In a competitive market, customers have the power to choose from a variety of substitutes, prompting them to seek products with more attributes, high quality, and low cost. The advantages of online shopping, such as convenience and the ability to compare different virtual stores easily, contribute to perceived usefulness. FinTech firms offer various applications, software, and services on their platforms that assist users in extracting meaningful information and making informed decisions,

ultimately leading to purchase intentions.

2.6 Behavioral intentions to use

The introduction and expansion of FinTech, along with its integration with traditional financial institutions, significantly influences users' willingness to adopt and adapt to FinTech services [36]. Financial institutions are increasingly implementing green policies and transitioning to paperless operations, relying on FinTech services for efficient and accurate service delivery. Individual behavioral intentions has a critical role in the actual implementation and use of FinTech services. Previous research has supported the significance of behavioral intentions in shaping usage patterns, as justified by the TAM model. Consumer awareness and the pace of technological innovation in financial services are important factors influencing behavioral intentions. Consumer awareness indirectly relates to the rate of technological innovation in financial services. If technological advancements outpace consumer awareness and use, FinTech firms may not fully realize the benefits of innovation if the time required to generate profits increases [37].

Various factors influence behavioral intentions, including information about product usage and utility, direct costs associated with adopting FinTech services, and access to technology, which contribute to the formation of secure behavioral intentions for using and continuing with the service in the future [38]. According to Venkatesh et al. [16], effort expectancy, performance expectancy, and social influences are other factors that impact individuals' behavioral intentions. Users are more likely to utilize FinTech services when the technology utilized by FinTech firms is convenient, user-friendly, and straightforward. Previous research has demonstrated the significant influence of perceived ease of use on users' behavioral intentions toward adopting new technology.

Based on the above arguments, we can develop the hypothesis that:

H5: Perceived usefulness has a positive impact on Behavioural intention of the user for the adoption of Fintech services.

2.7 Actual usage

To capture acceptance, leading technology approval and application models have strengthened the relationship between behaviour use and intention [39]. As a result, the majority of current research studies are more concerned with examining behaviour intention to forecast use. The information technology perspective dominates major investigations for the technology approval and use. Primary goal of this research is comprehending the impact of behaviour intention on real usage from the standpoint of corporate accomplishment due to factual use of FinTech facilities, as well as to investigate the considerations influencing consumer perception of the advanced FinTech services. Actual use is defined in this study as the rate and estimated multiple times a FinTech service is utilized in a undertaken time. Hence from the above discussion we can determine that:

H6: Behavior intention has significant impact on actual use of Fin Tech services.

Concluding the review of literature, financial literacy refers to the knowledge and understanding of personal finance

concepts. It involves the capacity to read and measure financial statements and make informed decisions. Lack of financial literacy can lead to limited approach to financial services and vulnerability to non-standard financial providers. Trust and privacy are crucial in the context of fintech services, as customers value their privacy and hesitate to share personal information without trust. Service quality, including communication, support, and security, is important for customer satisfaction and loyalty. Perceived ease of use refers to customers' conviction that using fintech services is convenient and user-friendly, which influences their adoption and usage. Perceived usefulness is the perception of the benefits and value derived from using fintech services. Behavioral intentions are affected by factors like awareness, perceived ease of use, and perceived usefulness, leading to the actual usage of fintech services. We further analyse impact of these variables on actual usage of fintech product in accordance to conceptual framework (Figure 1).

Figure 1. Conceptual framework

3. METHODOLOGY

3.1 Sampling and data collection

Digital payments are the most common form of Fintech innovations touching our daily lives. Total operational value through digital payments division is expected to get US\$8,562,932m in FY 2022. Total operational value is projected to appear with annual growth rate from 2022 to 2026 of 12.76% developing in estimated total amount of US\$13,845,526m by 2026 [40]. Through present study we wish to understand how digital payments are used in India and to what level have Indian consumers accepted this model of payments. We even wish to understand whether such a growth of digital payments is sustainable in future. Extended technology acceptance model is used to realize the user acceptance of digital payments and perceived usability of these services. The study is done across three age groups, young generation aged 18-25 years, middle aged population aged 25-40 years and population above 40 years of age as shown in Table 1. The COVID-19 pandemic has altered the payments landscape, with digital payments becoming the most popular method among young people. Over 250 million teenagers prefer digital payments to other modes of payment,

according to a Fampay survey [41]. But in words of Anna Maria Lusardi, director, Global Financial Literacy Excellence Center at George Washington University, Washington, D.C, "Fintech is not a substitute for financial literacy" [42].

Hence in our research we took several variables which have an impact on the actual usage of digital payments and financial literacy is one of them. Researchers have identified that how lack of financial literacy and continuous use of mobile payments can lead to acute financial mismanagement. A study of 50 respondents in pilot form was performed first and on the basis of this pilot study the reframing of final questionnaire was done. Final questionnaire comprised of two segments. The first segment focused on demographic profile questions and another segment included of questions related to constructs in the suggested conceptual model in Figure 1. Then final questionnaire contained of 25 questions across 7 constructs. The data was collected using snowball sampling as population list was not accessible. The questionnaire was both circulated online via Facebook and Gmail and offline through field visit by the researchers. Facebook is a powerful communication tool [43]. hence we employed this technique to receive random responses. Researchers also went on field and got some questionnaire filled by random people whom they met in market areas and malls. Detailed interview was also done to understand the constructs which have an impact on digital payments usage and non-usage. At the end, 426 filled questionnaires were received, and 32 survey instruments were rejected on basis of incomplete responses. Finally, 394 responses were considered for analysis. The sample size is adequate as per [44]. The questionnaires were filled by males and females above 18 years of age from both rural and urban population.

Table 1. Respondents' demographic

Gender	Male 229 (58.1%)	Female 165 (41.8%)	
Age (in Years)	18-25 179 (45.43%)	25-40 136 (34.15%)	40 and above 79 (19.79%)
Education	Undergraduate 116 (29.44%)	Postgraduate 278 (70.55%)	
Area of Residence	Rural 127 (32.23%)	Urban 267 (67.76%)	

3.2 Measurement

The researcher utilized a five-point Likert scale. The items used in the study were drawn from various sources including financial literacy [45], trust and privacy [46], service quality [47], perceived usefulness [33], perceived ease of use [33], behavioral intention to use [48], and actual usage [49]. The specific items are recorded in Table 2 below.

Table 2. Descriptive analysis of measurement items

Construct	Item	Mean	Std Dev	Median	Skewness	Kurtosis
Financial Literacy	Risk Diversification: I believe it is safer to invest my money in multiple investment options rather than in one investment option	2.13	1.18	2.00	-0.01	-0.27
	Inflation: If I can buy 1 kg of wheat at Rs 50 today then I will be able to buy lesser in same amount 10 years later.	2.45	1.28	3.00	-0.09	-0.48

Construct	Statement					
	Numeracy (Interest): The 10% interest rated on my investment will grow my Rs 100 to Rs 110 in 1 year	2.67	1.34	2.00	-0.10	-0.59
	Compound Interest: If I put money in the bank for two years and the bank agrees to add 10 percent per year to my account. Then the bank will add more money to my account the second year than it did the first year.	2.30	1.33	3.00	-0.09	-0.35
Trust and Privacy	I am concerned about privacy of my bank account whenever I make a mobile payment	3.15	1.312	2.00	-.848	-.430
	Due to safety issues, I use mobile payments only when I don't have ready cash.	2.72	1.443	3.00	.147	-1.357
	I don't use mobile payments due to fear of losing money.	2.13	1.202	2.00	-.640	-.546
	I have fear of making wrong payment through mobile payments.	2.70	1.293	3.00	-.395	-.951
	I think Indian mobile payment systems are less safe and secure.	2.55	1.283	2.00	-.048	-.881
Service Quality	It is easy and fast to make payment through mobile payment systems	3.36	1.365	4.00	.392	-1.061
	Many Financial instruments can be bought or sold using mobile payments	3.83	1.298	3.00	.969	-.176
	It is easy to get refund when any transaction fails.	3.73	1.314	4.00	.337	-.976
Perceived Ease of Use	I can efficiently manage my bank accounts with Mobile Banking	3.56	1.169	4.00	.513	-.369
	I was able to manage all my purchases during lockdown due to mobile payments	3.45	1.228	3.00	-.336	-.829
	UPI payments are easier than internet banking and credit card payments	3.83	1.373	4.00	-.947	-.354
	UPI payments are user friendly	3.62	1.483	4.00	-.875	-.722
Perceived Usefulness	Mobile payments are great time saver	3.28	1.432	4.00	-.687	-.855
	It is easy to not carry cash or card and make mobile payments	3.44	1.381	3.00	-.430	-1.127
	Mobile payments help me track my past payments easily Mobile payments have made my bank and ATM visits minimum	3.38	1.298	3.00	-1.047	-.007
Behavioural Intention to Use	I prefer to make mobile payments even if I am carrying cash.	3.92	1.246	3.00	-.782	-.124
	I had initial inhibitions to use mobile payments but now I am very comfortable using it.	3.84	1.322	4.00	-.388	-.963
	I find it flexible and fun while using mobile payment system	3.89	1.227	4.00	-.612	-.429
Actual Usage	I like the idea of making mobile payments as it is safe not to carry cash always	3.55	1.335	4.00	-.514	-.859
	I have favorable attitude towards making mobile payments	4.07	1.251	4.00	-1.008	-.004

Table 3. Reliability, factor loading and AVE

Construct	Indicator	Factor Loadings	Cronbach's Alpha α	CR	AVE
Financial Literacy (FL)	FL1	0.574	0.64	0.822	0.45
	FL2	0.575			
	FL3	0.513			
	FL4	0.545			
Trust and Privacy Factors (TPF)	TPF1	0.844	0.84	0.863	0.58
	TPF2	0.856			
	TPF3	0.813			
	TPF4	0.757			
	TPF5	0.825			
Service Quality (SQ)	SQ1	0.858	0.83	0.905	0.68
	SQ2	0.834			
	SQ3	0.879			
Perceived Ease of use (PEU)	PEU1	0.769	0.81	0.860	0.58
	PEU2	0.757			
	PEU3	0.830			
	PEU4	0.818			
Perceived Usefulness (PU)	PU1	0.902	0.92	0.837	0.67
	PU2	0.766			
	PU3	0.918			
Behavioral Intention to use (BIU)	BIU1	0.887	0.87	0.84	0.76
	BIU2	0.946			
Actual Usage (AU)	AU1	0.760	0.83	0.815	0.65
	AU2	0.775			
	AU3	0.824			

Table 4. Correlations

Constructs		1	2	3	4	5	6	7
1.	FL	-						
2.	TPF	.44**	-					
3.	SQ	0.381**	-0.324*	-				
4.	PEU	0.305*	-0.407*	0.870*	-			
5.	PU	0.432**	-0.335*	0.802**	0.858**	-		
6.	BIU	0.232**	-0.358*	0.725**	0.769**	0.714*	-	
7.	AU	0.260*	-0.344*	0.722**	0.850**	0.800**	0.825**	-

Note: ** denotes significant at 1% level, * denotes significant at 5% level

Table 5. Model fit summary of structural equation model

Indices	Value	Suggested value
Chi-square value	1791.864	-
DF	528	-
Chi-square value/DF	3.392	< 5.00 [50]
GFI	0.92	> 0.90 [51]
AGFI	0.90	> 0.90 [52]
NFI	0.93	> 0.90 [51]
CFI	0.97	> 0.90 [52]
RMSEA	0.043	< 0.08 [52]
R Square	0.464	

Table 6. Structural model results

	Hypotheses	Standardised Coefficient (Beta)	t-statistic	P Value	Inference
H1	FL → PU	0.109	5.78	>0.05	Not supported
H2	TPF → PU	0.242	3.16	<0.001**	Supported
H3	SQ → PU	0.392	2.19	<0.001**	Supported
H4	PEU → PU	0.382	2.47	<0.001**	Supported
H5	PU → BIU	0.106	2.75	<0.001**	Supported
H6	BIU → AU	0.297	3.71	<0.001**	Supported

Note: ** denotes significant at 1% level

3.3 Data analysis

Data was found to be normal as skewness and kurtosis values were in the range of ±3 [53]. All skewness and kurtosis values are mentioned in Table 2. Reliability, factor loadings and AVE values have been shown in Table 3. Variables were correlated but no multicollinearity is observed as per values in Table 4. The values of VIF (Variance inflation factor was found to be less than 10 i.e. 8.7 [54]. The values of VIF were checked for all the variables during assessment of formative model. The values for VIF for FL, TPF, SQ, PEU, PU, BIU and AU are found to be 4.78, 5.69, 1.25, 3.32, 1.78, 1.89 and 2.32 respectively. As no multicollinearity was found therefore all the variables were further considered for CFA. For data analysis, SPSS AMOS was used. Harmans single factor test is used to check common method biases. In these data, there is no common system bias because the total variance acquired by one factor is 38.56%, which is less than the required criterion of 50%.

3.3.1 Measurement model

Confirmatory factor analysis i.e., CFA was applied to evaluate the measurement model and results are shown in Table 5. The model exhibits a good fit as chi square value is 1791.864 at 528 degrees of freedom and this value is significant as p < .01; RMSEA is 0.043 , NFI= 0.93, CFI= 0.97, GFI= 0.92, AGFI= 0.90. The overall reliability of research constructs is 0.835 which is reasonably higher than required value of 0.70. The independent constructs have a correlation of less than 0.8, indicating discriminant validity [55]. The R

square value is 0.464, hence it can be said that 46.4% variation in actual usage of fintech products can be contributed to Financial Literacy(FL), Trust and Privacy Factors (TPF), Service Quality (SQ), Perceived Ease of use (PEU), Perceived Usefulness (PU) and Behavioural Intention to use (BIU). Henceforth there are many other variables which can be affecting the usage of fintech products and digital literacy for example can be one of it.

3.3.2 Structural model

Structural Model was presented to check the hypothesis. The structural model shows a good fit with chi square value is 1893.864 at 528 degrees of freedom and this value is significant as p < .01; RMSEA is 0.044 , NFI= 0.92, CFI= 0.90, GFI= 0.92, AGFI= 0.91. All indices show good fitness model. As exhibited in Table 6, Financial literacy does not support perceived ease of use (H_1 is accepted) , trust and privacy has negative impact on perceived ease of use (H_2 is rejected), service quality and perceived usefulness has positive impact on perceived ease of use (H_3 and H_4 are rejected). Perceived ease of use has positive impact on behavioural intention to use, and behavioural intention to use has positive impact on actual usage (H_5 and H_6 are rejected). The initial conceived model did not support the impact of financial literacy on Perceived ease of use of Fintech services like digital payments. This means people use digital payments even if their financial literacy level is quite low. This gives a great insight into the habit of Fintech services. The implications of this are discussed in Discussion section.

4. DISCUSSION

The current study identifies the impact of financial literacy, Trust and Safety factors, Service Quality and Perceived usefulness on Perceived ease of use of FinTech services and further on Behavioural intention to use of FinTech facilities and Actual use of FinTech services. These results compliments the observations [56, 57] which found that financial literacy amongst youth is on a lower side of 40% and they are weak in comprehending the risk associated with financial investment avenues. In the areas of risk understanding and insurance, both younger and older millennials have the lowest financial literacy. Insuring is a problem for younger millennials in particular; it is the area where their financial literacy gap is the highest when compared to older millennials. While the majority of millennials handle their personal accounts using their cellphones, financial technology (fin-tech) does not always help their financial management habits rather lack of financial literacy may result in cybercrimes and overdrawing their account. Financial literacy is the most cruical factor for usage of FinTech applications and any lacunae at financial literacy levels can result in scary financial problems for an individual. Next is Trust and Safety factors which affect the actual usage of FinTech products. Most of the non-users accounted for lack of Trust and safety factors as one of the factors for not participating in FinTech applications and digital payments. Trust and Safety is an important construct which is indeed a restraining factor for penetration of Digital payments. Both policy makers and FinTech service providers should take this factor seriously and work towards providing safe and secure services to users. Service Quality is indeed an enabling factor for digital payments adoption. The service quality and promptness of services of digital payments is indeed commendable. Users find these payment systems very high quality and easy to use. Perceived usefulness also shows a high positive impact on the adoption of digital payments systems in India. This suggest that individuals indulge in digital payments due to good service quality of services, high perception on usefulness of these services and this further impacts the perceived ease of use and continued intention to use and finally outcomes in high actual usage of digital payments.

5. THEORETICAL AND PRACTICAL IMPLICATIONS

The fintech industry is experiencing instant shifts with the introduction of innovative technologies on a daily basis. This dynamic environment requires customers to constantly adapt to new offerings. From a theoretical perspective, the current research influences to the existing academic sources on technology acceptance. It extends the understanding by incorporating both traditional behavioral attributes and key technological attributes as primary motivators for individuals to adopt and use fintech services. The findings show practical effects for fintech firms and policymakers. Fintech service contributors want to precisely identify and combine consumer requirements and insights to achieve successful adaptation and business profitability. By considering the identified interface attributes, they can maximize user behavior and improve service adoption.Additionally, the study examines the influence of demographic characteristics on the suggested conceptual framework. It reveals that age is a substantial consideration that inhibits the adoption of fintech services, particularly among individuals over the age of 40. Fintech

firms targeting this age group should prioritize security and perceived ease of use to address their concerns. Interestingly, the research findings indicate that financial literacy does not affect perceived ease of use.Practical recommendations for fintech service providers include focusing on raising awareness of their products and building trust among older individuals to expand their reach in this demographic. Moreover, the study acknowledges the unique characteristics of the post-millennial generation, who are more knowledgeable about fintech services and exhibit different behaviors compared to previous generations. To attract more customers, there is a requirement for sizable customization of critical services. From a practical standpoint, the study provides insights for fintech firms and policymakers on designing effective interfaces, addressing age-related barriers, leveraging financial literacy, and adapting to the preferences of the post-millennial generation.

6. LIMITATION

Although the study's sample size of 426 Maharashtra residents was adequate and met the minimum requirements, it is important to note that the generalizability of the findings to the broader Indian population may be limited. This limitation arises from the fact that the samples were drawn solely from a single state, Maharashtra, and do not encompass the diversity and variations present across India as a whole. Second, we used a cross-sectional research method in this study, which has the disadvantage of only capturing information about individuals' behaviour for a specific period of time rather than following them over time. As a result, people's attitudes toward fin tech have shifted, and the temporal sequence of the link between the variables cannot be determined. The mediating variable is not included in this study since it directs exclusively on the direct correlation between the independent and dependent variables.Supplementary mediating factors that might have a substantial influence on actual behaviour and digital literacy are not considered. As a result, the research's accuracy and reliability may suffer in the absence of mediating factors. Because people may alter their responses to emphasize their personalities, this study may encounter issues such as personal bias and subjective self-assessments. They may fail to report accurately in order to conceal their own failures during the learning process. As a result, the validity of the argument may suffer. Although respondents are sometimes willing to report themselves honestly, self-reported emotional intelligence may be based on a self-perception of emotional aptitude. As a result, the study's consistency may be jeopardized population.

7. CONCLUSION

The current study investigates the influence of financial literacy, trust and safety factors, service quality, and perceived usefulness on the perceived ease of use, behavioral intention to use, and actual usage of FinTech services. The findings align with previous research, indicating minimum financial literacy among youth, particularly in understanding the problems concerned with financial investments and insurance. Lack of financial literacy can lead to cybercrimes and financial problems. Trust and safety factors emerge as significant barriers to the adoption of FinTech services, with non-users

citing these concerns. Service quality and perceived usefulness play crucial roles in fostering the adoption of digital payments, indicating that individuals are motivated by high-quality and useful services, which impact their perceived ease of use and continued intention to use. Financial literacy is important for economic well-being, according to a growing body of evidence, and variances in financial knowledge acquired early in life can account for a significant amount of adult financial and social well-being. FinTech (financial technology) is accelerating the transformation of the financial services industry. On the potential impact of FinTech on personal financial development, well-being, and societal welfare, various viewpoints exist. In an era of rapidly greater (digital) financial inclusion, student debt, and concerns arising from examples of (online) financial fraud, financial education and educated financial counselling are appropriate strategic incursions that improve financial and general well-being. The research gives an important insight into the user behaviour of digital payments(FinTech) and that people with less understanding of financial terms and implications are also very frequently making use of digital payments services. Superficially this is good news, but it can surely have long term implications on financial wellbeing of an individual and can result in financial scams and frauds. Also, Users seem to be very concerned about the trust and privacy of these financial digital payments and this indeed is one thing which Policy makers, Government and RBI should make a note of. regulations in digital payments are the most important policy intervention which needs to be put in place properly. However, FinTech users look for high service quality, ease of use and flexibility which to a great extent FinTech companies are able to cater. Hence increasing the trust and privacy and increased level of financial knowledge can lead to increased adoption of these services.

ACKNOWLEDGMENT

REFERENCES

[1] MoC&I. (2021). Ministry of Commerce & Industry. https://pib.gov.in/PressReleaseIframePage.aspx?PRID= 1759602.

[2] Invest India. (2022). India - A Global FinTech Superpower. https://www.investindia.gov.in/sector/bfsi-fintech-financial-services.

[3] Sandeep Singh. (2022). Decoding $1.3 Tn Fintech Market Opportunity For Indian Startups. New Delhi: Inc42. https://inc42.com/features/decoding-1-3-tn-fintech-market-opportunity-for-indian-startups/.

[4] Suseendran, G., Chandrasekaran, E., Akila, D., Sasi Kumar, A. (2020). Banking and FinTech (financial technology) embraced with IoT device. In Data Management, Analytics and Innovation. Advances in Intelligent Systems and Computing, vol 1042. Springer, Singapore. https://doi.org/10.1007/978-981-32-9949-8_15.

[5] Weichert, M. (2017). The future of payments: How FinTech players are accelerating customer-driven innovation in financial services. Journal of Payments Strategy & Systems, 11(1): 23-33. https://www.ingentaconnect.com/content/hsp/jpss/2017/00000011/00000001.

[6] Gomber, P., Kauffman, R.J., Parker, C., Weber, B.W. (2018). On the fintech revolution: Interpreting the forces of innovation, disruption, and transformation in financial services. Journal of management information systems, 35(1): 220-265. https://doi.org/10.1080/07421222.2018.1440766

[7] Nangin, M.A., Barus, I.R.G., Wahyoedi, S. (2020). The effects of perceived ease of use, security, and promotion on trust and its implications on fintech adoption. Journal of Consumer Sciences, 5(2): 124-138. https://doi.org/10.29244/jcs.5.2.124-138

[8] Meyliana, M., Fernando, E. (2019). The influence of perceived risk and trust in adoption of fintech services in Indonesia. CommIT (Communication and Information Technology) Journal, 13(1): 31-37. https://doi.org/10.21512/commit.v13i1.5708.

[9] Financial Stability Board. (2017). Financial Stability Implications from FinTech. Supervisory and Regulatory Issues that Merit Authorities' Attention, Basel, June. http://www.fsb.org/wp-content/uploads/R270617.pdf.

[10] Leong, C., Tan, B., Xiao, X., Tan, F.T.C., 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. https://doi.org/10.1016/j.ijinfomgt.2016.11.006.

[11] Manyika, J., Lund, S., Singer, M., White, O., Berry, C. (2016). Digital finance for all: Powering inclusive growth in emerging economies. McKinsey Global Institute, 1-15. http://surl.li/kjbiz.

[12] Leong, C., Tan, B., Xiao, X., Tan, F.T.C., 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. https://doi.org/10.1016/j.ijinfomgt.2016.11.006.

[13] Davis, F.D., Bagozzi, R.P., Warshaw, P.R. (1989). User acceptance of computer technology: A comparison of two theoretical models. Management Science, 35(8): 982-1003. https://doi.org/10.1287/mnsc.35.8.982.

[14] Gefen, D., Straub, D. (2003). Managing user trust in B2C e-services. e-Service, 2(2): 7-24. https://doi.org/10.2979/esj.2003.2.2.7.

[15] Alalwan, A.A., Dwivedi, Y.K., Rana, N.P. (2017). Factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with trust. International Journal of Information Management, 37(3): 99-110. https://doi.org/10.1016/j.ijinfomgt.2017.01.002.

[16] Venkatesh, V., Morris, M.G., Davis, G.B., Davis, F.D. (2003). User acceptance of information technology: Toward a unified view. MIS Quarterly, 27(3): 425-478. https://doi.org/10.2307/30036540.

[17] Garman, E., Forgue, R. (1997). Personal Finance. Boston, Mass: Houghton Miffl in Company. http://surl.li/kjbon.

[18] Anthes, W.L. (2004). Financial illiteracy in America: A perfect storm, a perfect opportunity. Journal of Financial Service Professionals, 58(6). https://www.proquest.com/docview/209616118

[19] Anthes, W.L., Most, B.W. (2000). Frozen in the headlights: The dynamics of women and money. Journal

of Financial Planning, 13(9): 130. https://www.proquest.com/docview/217556124.

[20] Cole, S., Sampson, A., Zia, B. (2010). Prices or knowledge? What drives demand for financial services in emerging markets? Harvard Business School Finance Working Paper Series, 66(3): 1933-1967. https://doi.org/10.1111/j.1540-6261.2011.01696.x

[21] Braunstein, S., Welch, C. (2002). Financial literacy: An overview of practice, research, and policy. Fed. Res. Bull., 88: 445. https://www.federalreserve.gov/pubs/bulletin/2002/1102lead.pdf

[22] Westin, A.F. (1967). Special report: Legal safeguards to insure privacy in a computer society. Communications of the ACM, 10(9): 533-537. https://doi.org/10.1145/363566.363579

[23] Davies, S. (1996). Big Brother: Britain's web of surveillance and the new technological order. Pan. https://www.google.co.in/books/edition/Big_Brother/7QMVAQAAIAAJ?hl=en

[24] Malhotra, N.K., Kim, S.S., Agarwal, J. (2004). Internet users' information privacy concerns (IUIPC): The construct, the scale, and a causal model. Information Systems Research, 15(4): 336-355. https://doi.org/10.1287/isre.1040.0032.

[25] Cheung, C.M., Lee, M.K. (2006). Understanding consumer trust in Internet shopping: A multidisciplinary approach. Journal of the American Society for Information Science and Technology, 57(4): 479-492. https://doi.org/10.1002/asi.20312.

[26] Parker, D.B. (2012). Toward a new framework for information security? Computer Security Handbook, pp. 3-1. https://doi.org/10.1002/9781118851678.ch3.

[27] Dhillon, G., Torkzadeh, G. (2006). Value-focused assessment of information system security in organizations. Information Systems Journal, 16(3): 293-314. https://doi.org/10.1111/j.1365-2575.2006.00219.x.

[28] Chau, V.S., Ngai, L.W. (2010). The youth market for internet banking services: Perceptions, attitude and behaviour. Journal of Services Marketing, 24(1): 42-60. https://doi.org/10.1108/08876041011017880.

[29] Akturan, U., Tezcan, N. (2012). Mobile banking adoption of the youth market: Perceptions and intentions. Marketing Intelligence & Planning, 30(4): 444-459. https://doi.org/10.1108/02634501211231928.

[30] Riquelme, H.E., Rios, R.E. (2010). The moderating effect of gender in the adoption of mobile banking. International Journal of Bank Marketing, 28(5): 328-341. https://doi.org/10.1108/02652321011064872.

[31] Taylor, S., Todd, P.A. (1995). Understanding information technology usage: A test of competing models. Information Systems Research, 6(2): 144-176. https://doi.org/10.1287/isre.6.2.144.

[32] 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, 36(1): 157-178. https://doi.org/10.2307/41410412.

[33] Cheng, T.E., Lam, D.Y., Yeung, A.C. (2006). Adoption of internet banking: An empirical study in Hong Kong. Decision Support Systems, 42(3): 1558-1572. https://doi.org/10.1016/j.dss.2006.01.002.

[34] Carlin, B., Olafsson, A., Pagel, M. (2017). Fintech adoption across generations: Financial fitness in the information age (No. w23798). National Bureau of Economic Research. https://doi.org/10.3386/w23798.

[35] Barkhi, R., Wallace, L. (2007). The impact of personality type on purchasing decisions in virtual stores. Information Technology and Management, 8(4): 313-330. https://doi.org/10.1007/s10799-007-0021-y.

[36] Feng, T.T., Tien, C., Feng, Z.Y., Lai, P.J. (2014). Web site quality and online trading influences on customer acceptance of securities brokers. Asia Pacific Management Review, 19(1): 25-45. https://doi.org/10.6126/APMR.2014.19.1.02.

[37] Abbasi, T., Weigand, H. (2017). The impact of digital financial services on firm's performance: A literature review. arXiv preprint arXiv:1705.10294. https://doi.org/10.48550/arXiv.1705.10294.

[38] Kaba, B., Touré, B. (2014). Understanding information and communication technology behavioral intention to use: Applying the UTAUT model to social networking site adoption by young people in a least developed country. Journal of the Association for Information Science and Technology, 65(8): 1662-1674. https://doi.org/10.1002/asi.23069.

[39] Dwivedi, Y.K., Rana, N.P., Chen, H., Williams, M.D. (2011). A meta-analysis of the unified theory of acceptance and use of technology (UTAUT). In: Nüttgens, M., Gadatsch, A., Kautz, K., Schirmer, I., Blinn, N. (eds) Governance and Sustainability in Information Systems. Managing the Transfer and Diffusion of IT. TDIT 2011. IFIP Advances in Information and Communication Technology, vol 366. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-642-24148-2_10.

[40] Statista. (2022). www.statista.com. Retrieved from https://www.statista.com/outlook/dmo/fintech/digital-payments/worldwide.

[41] Times, E. (2021). Are teens rising stars in the digital payments space? Find out. Economic times. Retrieved from https://bfsi.economictimes.indiatimes.com/news/fintech/are-teens-rising-stars-in-the-digital-payments-space-find-out/86089209.

[42] Drake, D. (2018). Mobile payments: A cautionary tale. Business Journal Articles, Your Money. https://globalyouth.wharton.upenn.edu/articles/your-money/making-mobile-payments-cautionary-tale/.

[43] Eghdam, A., Hamidi, U., Bartfai, A., Koch, S. (2018). Facebook as communication support for persons with potential mild acquired cognitive impairment: A content and social network analysis study. PLoS One, 13(1): e0191878. https://doi.org/10.1371/journal.pone.0191878.

[44] Glenn, D.I. (1992). Determining sample size. A series of the program evaluation and organizational development. University of Florida, Publication date: November. https://www.psycholosphere.com/Determining%20sample%20size%20by%20Glen%20Israel.pdf.

[45] Lusardi, A., de Bassa Scheresberg, C. (2013). Financial literacy and high-cost borrowing in the United States (No. w18969). National Bureau of Economic Research. http://www.nber.org/papers/w18969.

[46] Featherman, M.S., Pavlou, P.A. (2003). Predicting e-services adoption: A perceived risk facets perspective. International Journal of Human-Computer Studies, 59(4): 451-474. https://doi.org/10.1016/S1071-5819(03)00111-3.

[47] Kang, J. (2018). Mobile payment in Fintech environment: trends, security challenges, and services. Human-centric Computing and Information Sciences, 8(1): 1-16. https://doi.org/10.1186/s13673-018-0155-4.

[48] Wu, L., Chen, J.L. (2005). An extension of trust and TAM model with TPB in the initial adoption of on-line tax: an empirical study. International Journal of Human-Computer Studies, 62(6): 784-808. https://doi.org/10.1016/j.ijhcs.2005.03.003.

[49] Yiu, C.S., Grant, K., Edgar, D. (2007). Factors affecting the adoption of Internet Banking in Hong Kong—implications for the banking sector. International Journal of Information Management, 27(5): 336-351. https://doi.org/10.1016/j.ijinfomgt.2007.03.002.

[50] Hair, J.F., Anderson, R.E., Tatham, R.L., Black, W.C. (1998). Multivariate Data Analysis. 5th Edn Prentice Hall International. Upper Saddle River, NJ. https://dl.acm.org/doi/10.5555/207590

[51] Hu, L.T., Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. Structural Equation Modeling: A Multidisciplinary Journal, 6(1): 1-55. https://doi.org/10.1080/10705519909540118.

[52] Hair Jr, J.F., Matthews, L.M., Matthews, R.L., Sarstedt, M. (2017). PLS-SEM or CB-SEM: Updated guidelines on which method to use. International Journal of Multivariate Data Analysis, 1(2): 107-123. https://doi.org/10.1504/IJMDA.2017.087624.

[53] George, D., Mallery, P. (2019). An overview of IBM® SPSS® Statistics. IBM SPSS Statistics, 26: 1-7. https://doi.org/10.4324/9780429056765.

[54] Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E. (2019). Multivariate datA ANalysis. Cengage Learning. Hampshire, United Kingdom. https://www.google.co.in/books/edition/Multivariate_Data_Analysis/0R9ZswEACAAJ?hl=en.

[55] Brown, T.A. (2015). Confirmatory Factor Analysis for Applied Research. Guilford Publications. http://www.kharazmi-statistics.ir/Uploads/Public/book/Methodology%20in%20the%20Social%20Sciences.pdf

[56] Lusardi, A. (2019). Financial literacy and the need for financial education: Evidence and implications. Swiss Journal of Economics and Statistics, 155(1): 1-8. https://doi.org/10.1186/s41937-019-0027-5.

[57] Yakoboski, P.J., Lusardi, A., Hasler, A. (2018). Millennial financial literacy and Fin-tech use: Who knows what in the digital era. https://gflec.org/initiatives/millennial-financial-literacy-and-fin-tech-use/.