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Intention to use fintech services: An investigation into the moderation effects of quality of internet access and digital skills

Roshan Ravi[1,2+]
Nirakar Nath Pandey[1]

[1]*School of Business and Management, Christ University, Bengaluru, India.*
Email: roshandaffodil@gmail.com
[2]*Department of Management and Professional Studies, Rajagiri College of Social Sciences, Cochin, India.*
Email: nirakarnath.pandey@christuniversity.in


(+ Corresponding author)

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ABSTRACT

This paper aims to investigate the moderating influence of the quality of access to internet and digital skills on the factors that influence the intention to use fintech services among the young working population in India. We use the Theory of Planned Behavior to examine the intention to adopt financial technology in a rapidly technologically transformative Indian landscape. We conducted an empirical investigation on 324 young workers in India using the survey method. The TPB model's relevance in an Indian context is validated. Attitude, perceived behavioral control, and subjective norms together accounted for 48.7% of the variation in the intention to use fintech services. The quality of internet access significantly moderated the positive effect of young workers' attitudes on their intention to use fintech. Digital skills significantly moderated the positive effects of attitude and perceived behavioral control on intentions to use fintech services. India is considered a very fast adopter of digital technology. In India, the use of electronic channels in financial service delivery is on the rise. With the wide geographic dispersion and huge population, the quality of internet access and digital skills can influence the intention to use fintech services. There can be vast differences in the behavioral mindset of people in a developing country like India compared to that of a developed one regarding the use and adoption of digital platforms for accessing financial services. Developers and regulators must adopt approaches and policies that consider these behavioral factors. This paper examines the Theory of Planned Behaviour in the context of a rapidly transforming behavioural context in India with the adoption of technology-based financial services. The importance of quality internet access and digital skills as factors moderating the adoption of technology is examined in this paper, unlike many previous studies.

Contribution/Originality: India is a fast adopter of digital technology. With a huge young population, it is important to understand what shapes young people's intention to adopt fintech services. This paper is the first ever attempt to understand the predictors and moderators of such behavioural intention in an Indian context using the Theory of Planned Behaviour.

1. INTRODUCTION

Factors determining the nature and level of adoption of technology among people in developed nations are an area of intense research (Mobarak & Saldanha, 2022). However, applying the findings of those studies directly to financial technologies or developing economies may not be feasible. Across the world, we are witnessing rapid penetration of internet facilities and the fast digitalization of financial services. As a result, understanding the drivers and limitations of people's behavioral intentions to adopt financial technology becomes necessary. In an

Indian context, such explorations are more relevant. This is because there are a number of developments that have been happening in India with regard to digitization (IBEF, 2023). One, India is witnessing rapid growth in the geographical availability of internet access (Over 50% Indians, 2023) Second, the population that can access affordable financial services is increasing due to regulators' rapid financial inclusion measures (Carriere-Swallow, Haksar, & Patnam, 2021) Three, a significant proportion of the population owns hand-held digital devices such as mobile phones. Four, a number of new ventures are competing in the market to provide financial services through digital modes using the latest technology (Deloitte, 2017a). India's population is notable for its large number of educated young people who contribute to the country's workforce (Malin & Tyagi, 2023). Thus, it is evident that the young working class in India holds the key to the success of fintech services.

The present study aims to investigate the drivers of young workers' behavioral intention to adopt fintech services in India. The study used the Theory of Planned Behavior (Ajzen, 1991) to look at people's intentions to use fintech services. This theory says that attitudes, perceived behavioral control, and subjective norms are strong predictors of behavior intention, which in turn leads to actual adoption behavior. By examining the role of quality of internet access and digital skills as moderators introduced in the TPB model, we expect the theory's utility in predicting such intentions to adopt fintech services to improve. Figure 1 presents the study's conceptual model. The study aims to answer the following research questions:

- Does personal attitude, subjective norms, and perceived behavior control have a significant impact on access to fintech services for the working class?
- Does the quality of internet access significantly moderate the effects of personal attitude, subjective norms, and perceived behavior control on the intention to sue fintech services?
- Do digital skills significantly moderate the effects of personal attitude, subjective norms, and perceived behavior control on the intention to sue fintech services?

The study highlights its significance in creating a theoretical model that explains how the younger working class in India develops their intention to use fintech services. The findings can provide important information for fintech services firms and governments to formulate and effectively execute plans and policies to ensure higher levels of digital inclusion.

The structure of the paper is as follows: the background section presents the theoretical perspective of the TPB and its four constructs. We also explore the effectiveness of the theory in elucidating the inclination towards fintech service adoption among India's young workforce. The next section discusses the research methodology used to explain the sample and survey techniques, as well as the measurement of the constructs. The fourth section presents the data analysis procedures and the study's outcomes. The fifth section deals with discussions regarding the theoretical and practical implications of the study's findings. The conclusions form the last section.

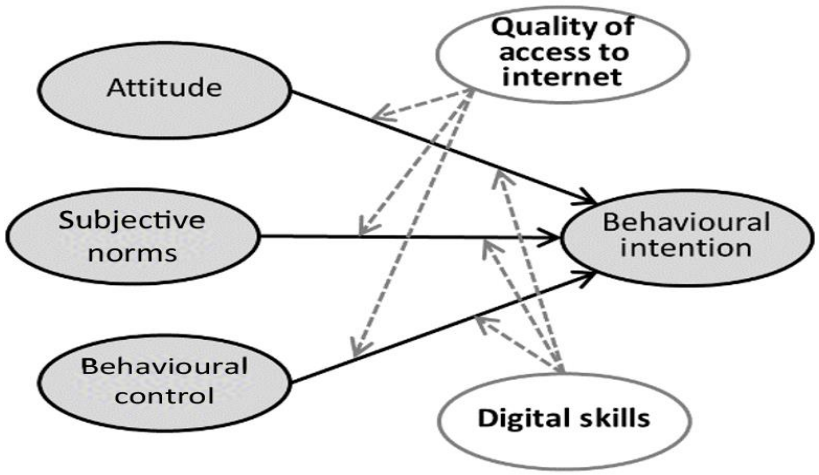

Figure 1. Conceptual model proposed.

2. REVIEW OF LITERATURE

The key to the digital economy is digital banking and the financial system. The development policy for India should prioritize achieving sustainable and equitable economic progress, specifically tailored to meet the evolving aspirations of young generations (Deloitte, 2016). One example of using digital financial platforms for equitable progress is the Jan Dhan, Aadhaar, and Mobile (JAM) scheme for the Central Government of India's direct transfer of benefits (DBT). The government directly credits subsidies, minimum wage payments, and other financial support schemes to the beneficiary account, thereby eliminating multiple mid-layers and infective distribution systems. The Pradhan Mantri Jan Dhan Yojana (PMJDY) of the Government of India is a mechanism for reducing the financial exclusion of poor or rural households. The scheme provides beneficiaries with banking, insurance, and pension facilities, as well as RuPay debit cards. On the supply side, India also sees several mobile network operators providing mobile-based banking services for easy money transfer. Digital wallets are strongly gaining market momentum in the country, with many players providing bill payment, mobile recharge, and shopping facilities.

Fintech is a fast-emerging area in banking and other financial services, making the banking experience more personalized and empowering (Limna & Kraiwanit, 2022). The synergy of combining financial services and technology is a strong pathway to building a robust digital economy (Deloitte, 2017). Indian fintech emerged as one of the world's top fintech markets in terms of capital funding and investment value, reaching US$270 million by 2016. Although financial service providers have embraced technology to improve their service delivery, the pace of adoption falls short of its potential. The young population in India, numbering nearly 440 million millennials, constitutes one of the largest populations that are productive. This group is increasingly adopting technology-based digital media to engage in market-related activities like enquiring, purchasing, and paying for merchandise. The presence of a number of application programming interfaces, expanding digital and internet infrastructure, expanding e-commerce marketplaces, and strong mobile phone penetration are going to drive the growth of digital financial services in India (Deloitte, 2017a; Ernst & Young, 2022). The availability of unique digital biometric identities of individuals through Aadhaar can also be a driver in assisting financial service providers to reduce customer acquisition costs, service costs, and distribution costs, thereby expanding their customer base with limited physical presence (Das, 2015). Driven by the ecosystem, the number of fintech startups in India reached 7,300 by July 2022, with a value of US$ 30.2 billion in funding (Ernst & Young, 2022).

Thus, evidence suggests that fintech is gaining tremendous momentum in India, aided by a number of factors such as digital infrastructure, mobile phone usage, a large young population, and so on. Ultimately, the perception of fintech by its users and beneficiaries, particularly the young generation, largely determines its success, despite the sector's tremendous growth in terms of firms and funding. Thus, it is important to understand the factors that shape and control the adoption of fintech in India among the youth. Intention to adopt a specific behaviour has been extensively examined using the Theory of Planned Behaviour in a variety of spheres (Ajzen & Driver, 1991; Ajzen, Joyce, Sheikh, & Cote, 2011; Asare, 2015; Bosnjak, Ajzen, & Schmidt, 2020; Cooper, Barkatsas, & Strathdee, 2016; Sniehotta, 2009)). Many researchers (eg. (Lee, Cerreto, & Lee, 2010; Lynne, Casey, Hodges, & Rahmani, 1995; Morris, Venkatesh, & Ackerman, 2005; Pavlou, 2017; Teo, Zhou, & Noyes, 2016)) found that TPB could be used to explain intentions to engage in technology-related behaviours with very high explanatory power for the predictors in the model.

Despite the increasing and significant role of fintech services and the active use of financial technology by young people, no study in India has examined how young people develop their intentions to use these services. There has been no attempt to develop a theoretical model that can explain the development of such intentions. Hence, the present study attempts to fill the existing research gap.

3. THEORY AND HYPOTHESES DEVELOPMENT

The Theory of Planned Behaviour is an extension of the Theory of Reasoned Action of Fishbein and Ajzen (1975) and Ajzen and Fishbein (1980). The theory posits that individuals engage in behaviour logically and reasonedly, guided by their personal attitudes, beliefs about the ease of performing such actions, and the perspectives of important individuals (Ryan & Carr, 2010). Arafat and Ibrahim (2018) use this widely applied behavioural model to predict deliberate behaviour, which can explain nearly half of the variance in intention and adherence behavior.

According to Khrais and Alghamdi (2021) enabling conditions have a considerable beneficial effect on perceived ease of use, which leads to increased behavioral intention towards digital learning platforms. An external control factor pertinent to the discussion of facilitating resources is known as an enabling condition (Taylor & Todd, 1995). Thus, we assume that quality of internet access is a significant facilitating condition in the adoption of fintech services and hence, we hypothesise that:

H_1: Quality of internet access moderates the relation between attitude and behavioral intention to use fintech services

H_2: Quality of internet access moderates the relation between subjective norms and behavioral intention to use fintech services

H_3: Quality of internet access moderates the relation between behavioral control and behavioral intention to use fintech services

Yu, Lin, and Liao (2017) argued that digital personal skills have a moderating effect on the relationship between behavioural intention and the use of information and communication technology. Researchers have examined the significant correlation between digital skills and technology adoption (Acemoglu, Hazell, & Restrepo, 2020; Brynjolfsson, Rock, & Syverson, 2019; Felten, Raj, & Seamans, 2021). Thus, we are proposing that:

H_4: Digital skills moderate the relationship between attitude and behavioral intention to use fintech services.

H_5: Digital skills moderate the relation between subjective norms and behavioral intention to use fintech services.

H_6: Digital skills moderate the relation between behavioural control and behavioral intention to use fintech services.

4. RESEARCH METHODOLOGY

To measure the variables included in our theoretical model, we have used a structured questionnaire with constructs drawn from the Theory of Planned Behaviour. We measured the constructs under study using a multiple-item scale. We adapted the constructs forming the TPB model, behavioural intention, subjective norms, perceived behaviour control, and personal attitude from Ajzen (1991) to the study's context, drawing from Mathieson (1991) and Baker, Al-Gahtani, and Hubona (2007). The moderating variables were the quality of internet access and digital skills. We adapted a three-item scale from Yoo and Donthu (2001) to measure the quality of internet access. Digital skill was measured using a four-item scale adapted from Van Deursen, Helsper, and Eynon (2014). We developed all the survey questionnaire items in English. We measured all the items on a five-point Likert-type scale, anchored from strongly disagree to strongly agree.

Population: The population included the young working population in India, who were users of fintech services. This study defines a young working professional as someone who works full-time in organizations and is under the age of 35.

Sampling and Sample Size: The survey method was used for data collection. A total of 400 questionnaires were distributed among young workers of various organisations in India. The workers belonged to public and private sector enterprises involved in education, banking, merchandising, and IT industries. We distributed the sample across fifteen different locations across India, specifically in the four states of Kerala, Karnataka, Maharashtra, Uttar Pradesh, and the Union Territory of Delhi. We approached the offices of various institutions and requested them to administer the survey instrument. The employees were approached during their leisure times, without disturbing their work environment. We excluded foreign employees from the sample. 376 questionnaires, out of the total,

returned as responses. After a careful screening of the filled questionnaires, we eliminated 52 since they contained inconsistent and missing data. Thus, the final sample size of this study consists of 324 young working professionals.

Tools used: The collected data was examined for its descriptive statistics, including mean, standard deviation, skewness, and kurtosis. The reliability of the data was examined using Cronbach's alpha and composite reliability scores. Convergent validity was examined using Average Variance Explained and Item Loadings. Discriminant validity was examined using cross-loadings and the HTMT ratio.

To test the theoretical model and the related hypotheses, the study adopted Partial Least Square (PLS) based Structural Equation Modelling (SEM) using the SmartPLS software. To explore the behavioural intention of young workers to adopt fintech services, we have done a path analysis among the variables. We have estimated the hypothesized paths between exogenous and endogenous variables through the lens of the Theory of Planned Behaviour.

The final respondents comprised of 198 (61 percent) employees in the private sector and 126 (39 percent) employees in the public sector. Overall, 55.9 percent or respondents were women, and 44.1 percent were men. Table 1 Table 1 provides the descriptive statistics of the scales.

Table 1. Descriptive statistics.

Constructs	Mean	SD	Skewness	Kurtosis
Attitude	4.033	0.705	-0.475	0.145
Subjective norms	3.478	0.661	0.512	0.276
Perceived behavioral control	3.667	0.820	-0.423	-0.458
Behavioral intention	4.110	0.852	0.512	0.404
Quality of access to internet	3.559	0.471	0.712	0.622
Digital skills	3.770	0.527	0.668	-0.365

Source: Analysis results.

5. DATA ANALYSIS AND RESULTS

The research model specified in Figure 1 was analysed using SmartPLS Version 4, which is a Structural Equation Modelling (SEM) tool based on Partial Least Squares (PLS). The psychometric properties of the measurement model and the parameters of the structural model (paths between variables in the model and their significance) are evaluated in the analysis.

Table 2 presents the reliability results from the evaluation of the measurement model. The study's variables have Cronbach's alpha values of 0.874 for attitude, 0.796 for subjective norms, 0.851 for perceived behavior control, 0.826 for behavioural intention, 0.845 for quality of access, and 0.823 for digital skills. The Cronbach's alpha values are above the minimum level of 0.70 suggested by Nunnally and Bernstein (1978). The composite reliability values are 0.877 (attitude), 0.865 (subjective norms), 0.889 (perceived behaviour control), 0.847 (behavioural intention), 0.862 (quality of access), and 0.879 (digital skills), which are above the recommended minimum of 0.60 (Henseler & Sarstedt, 2013). These results show that the measures are acceptable as regards their internal consistency and reliability.

The convergence validity of the model is examined using the Average Variance Extracted (AVE) and the Item loadings (Table 3 and 4) as recommended by Hair, Ringle, and Sarstedt (2013). AVE of all the six constructs under study is 0.715 (attitude), 0.749 (subjective norms), 0.691 (perceived behaviour control), 0.720 (behavioural intention), 0.738 (quality of access), and 0.717 (digital skills). In all cases, the values are above the recommended minimum of 0.50 (Bagozzi & Yi, 1988). Table 3 provides the item loadings of the indicators against their respective latent constructs. Item loadings range from 0.741 to 0.913 (attitude); 0.841 to 0.920 (subjective norms); 0.786 to 0.844 (perceived behaviour control); 0.812 to 0.903 (behavioural intention); 0.818 to 0.902 (quality of access); and 0.776 to 0.913 (digital skills). Based on the recommendations of Hair, Hult, Ringle, and Sarstedt (2017), item loadings above 0.708 indicate the achievement of convergent validity.

Table 2. Reliability statistics.

Constructs	No. of items	Cronbach's alpha	Composite reliability
Attitude	4	0.874	0.877
Subjective norms	3	0.796	0.865
Perceived behavioral control	3	0.851	0.889
Behavioral intention	3	0.826	0.847
Quality of access to internet	3	0.845	0.862
Digital skills	4	0.823	0.879

Source: Analysis results.

Table 3. Convergent validity (AVE) of measurement model.

Constructs	AVE
Attitude	0.715
Subjective norms	0.749
Perceived behavioral control	0.691
Behavioral intention	0.720
Quality of access to internet	0.738
Digital skills	0.717

Source: Analysis results.

Table 4. Convergent validity (Item loadings) and discriminant validity (Cross loadings) of measurement model.

Items	Att	SuNor	PBCon	BehInt	QuAcc	DiSk
Att01	0.807	0.336	0.335	0.184	0.273	0.267
Att02	0.908	0.289	0.344	0.235	0.407	0.328
Att03	0.913	0.264	0.221	0.180	0.394	0.372
Att04	0.741	0.324	0.172	0.400	0.422	0.312
SuNor01	0.204	0.918	0.320	0.427	0.411	0.328
SuNor02	0.403	0.920	0.295	0.281	0.308	0.234
SuNor03	0.174	0.841	0.361	0.375	0.257	0.374
PBCon01	0.240	0.308	0.844	0.388	0.214	0.277
PBCon02	0.406	0.345	0.786	0.272	0.227	0.221
PBCon03	0.309	0.186	0.805	0.417	0.417	0.316
BehInt01	0.236	0.188	0.311	0.812	0.198	0.294
BehInt02	0.409	0.207	0.178	0.903	0.320	0.292
BehInt03	0.308	0.341	0.306	0.827	0.205	0.390
QuAcc01	0.260	0.313	0.434	0.412	0.818	0.204
QuAcc02	0.198	0.230	0.343	0.320	0.902	0.185
QuAcc03	0.168	0.271	0.313	0.283	0.856	0.350
DiSk01	0.423	0.234	0.402	0.379	0.370	0.776
DiSk02	0.204	0.420	0.421	0.304	0.255	0.854
DiSk03	0.403	0.191	0.411	0.173	0.345	0.913
DiSk04	0.174	0.189	0.335	0.237	0.367	0.839

Source: Analysis results.

We tested the discriminant validity of the model using Cross-loadings (Table 4) and Heterotrait-Monotrait (HTMT) Ratio (Table 5). Gefen and Straub (2005) recommended that coefficients below 0.40 are indicative of low loadings with a factor they do not measure. The results show that cross-loadings are very low in all cases. HTMT is the ratio between (i) the average correlations of the indicators across constructs measuring different phenomena) and (ii) the average correlations of indicators within the same construct (Henseler, Ringle, & Sarstedt, 2015). The Threshold value for HTMT is 0.85 (Clark & Watson, 1995; Kline, 2011), with higher values indicating a lack of discriminant validity (Henseler et al., 2015). Table 4 shows that the computed HTMT values are low. Thus, the discriminant validity of the scales is established.

Table 5. Discriminant validity (Heterotrait-monotrait ratio) of measurement model.

Components		1	2	3	4	5	6
Att	1	--					
SuNor	2	0.603	--				
PBCon	3	0.414	0.374	--			
BehInt	4	0.339	0.444	0.362	--		
QuAcc	5	0.323	0.327	0.397	0.282	--	
DiSk	6	0.511	0.636	0.607	0.317	0.512	--

Source: Analysis results

Figure 2 presents the results of the structural model assessment, where path coefficients indicate the direct effect of the three predictors on the outcome construct. All the path coefficients are statistically significant and positive. Perceived behavioral control (β = 0.627; t-statistic = 14.581; p<0.001) had the strongest effect on behavioral intention, followed by subjective norms (β = 0.401; t-statistic = 10.282; p<0.001) and attitude (β = 0.359; t-statistic = 7.978; p<0.001). Table 6 shows the direct effects of attitude, perceived behavioral control, and subjective norms on behavioral intention.

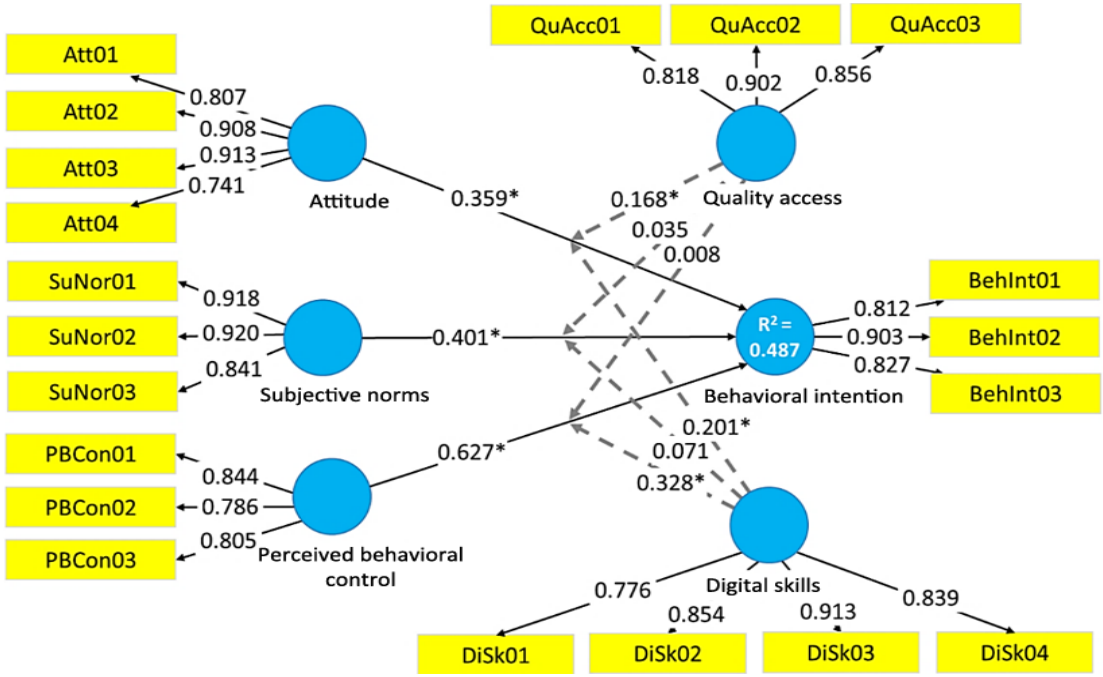

Figure 2. Structural model assessment results.

Note: *denotes path coefficient significant at five percent level.

Table 6. Path coefficients of direct effects.

Constructs	Path (β)	T-statistic	p-value	CI (95%)	
				Lower	Upper
Attitude → Behavioral intention	0.359	7.978	<0.001*	0.271	0.447
Subjective norms → Behavioral intention	0.401	10.282	<0.001*	0.325	0.477
Perceived behavioral control → Behavioral intention	0.627	14.581	<0.001*	0.543	0.711

Note: *Significant at five percent level.
Source: Analysis results.

For the moderating effects of quality of internet access (Table 7), the only significant moderation effect (β = 0.168; t-statistic = 3.925; p<0.001) was on the positive effect of attitude on behavioural intention. Specifically, higher levels of quality internet access positively moderated the effect of attitude on behavioral intention. The quality of internet access had no significant moderating effect on the predictive effect of subjective norms and perceived behavioural control on intention. For the moderating effects of digital skills (Table 8), a significant

moderation effect was observed on the positive effect of attitude (β = 0.201; t-statistic = 4.061; p<0.001) and perceived behavioral control (β = 0.328; t-statistic = 8.432; p<0.001) on behavioural intention. Higher levels of digital skills positively moderated the effects of attitude and perceived behavioral control on intention. All the predictors together accounted for 48.7 percent variation in the behavioral intention to use fintech as is revealed by the R^2 in the model (Cohen, West, Cohen, & Aiken, 2003).

Table 7. Moderation effect of quality of access to internet.

Constructs	Path (β)	T-statistic	p-value
Quality of access to internet * (Attitude → Behavioral intention)	0.168	3.925	0.000*
Quality of access to internet * (Subjective norms → Behavioral intention)	0.035	0.686	0.494
Quality of access to internet * (Perceived behavioral control → Behavioral intention)	0.008	0.170	0.865

Note: *Significant at five percent level.
Source: Analysis results.

Table 8. Moderation effect of digital skills.

Constructs	Path (β)	T-statistic	p-value
Digital skills * (Attitude → Behavioral intention)	0.201	4.061	0.000*
Digital skills * (Subjective norms → Behavioral intention)	0.071	1.363	0.173
Digital skills * (Perceived behavioral control → Behavioral intention)	0.328	8.432	0.000*

Note: *Significant at five percent level.
Source: Analysis results.

6. DISCUSSION

The study's findings confirmed the predictive role of attitude, subjective norms, and perceived behavioral control on individuals' behavioral intentions in the Theory of Planned Behavior. Using the theory, we examined the effect of an individual's attitude towards technology in financial services, subjective norms, and perceived behaviour control on the behavioural intention of individuals to use fintech services. We found all predictors to be significant and positive determinants of behavioral intention. The effect of subjective norms on intention to use fintech services is particularly important in India, where rapid digitization and technology-based banking service delivery are gaining momentum. Even in cases where people are not very familiar with using technology-based services on a daily basis, the effect on their intention to use technology can be enormous. In peer and family circles, the people that are important to young individuals play a vital role in enhancing their intention to adopt technology through their support and encouragement. .

In many cases, the immediate circle of important people may prove to be a source of normative expectation for the young working class, where the group expects young individuals to use financial technology. This is evident when young people find it very rewarding to check their CIBIL (Credit Information Bureau (India) Limited, which is an individual's credit score that financial institutions use to evaluate credit applications in India) score through mobile payment platforms, which was never possible before. Moreover, the rapid move towards digital services can serve as a factor in developing positive attitudes towards people's intentions to use fintech services. Such positive attitudes do not necessarily come from good and long-term experiences with using technology on a daily basis. Even people with less experience can develop positive attitudes, particularly where physical banking outlets and their services are geographically scattered and difficult to access. On the other hand, a positive attitude may find its root in the perceived value that an individual can associate with the use of technology-based financial services. With experiences gained regarding the significant benefits of using technology, the positive attitude ultimately becomes a source of influence to use such technology in the future. Young users of technology also significantly contribute to the development of positive attitudes through cognitive and affective feelings. Not only the rational component of

using technology, but the emotional satisfaction or enjoyment of doing so may also influence their decisions to use technology in the future. In a developing country like India, the digitization of services has spread to almost all spheres of human life. People from all walks of life, and the young working population in particular, are gaining more and more experience and exposure to getting their daily needs done through electronic means. The faster they gain experience, the more confident they are that they can easily complete their digital tasks. Thus, it is not surprising that in India, the working young class exhibits high levels of behavioural control in the use of financial technology services.

Conversely, Teo and Lee (2010) found that behavior control was not an important predictor of technology use among student teachers. Young workers may even be confident enough to prefer digital financial services over traditional over-the-counter services. Young individuals may also feel that they are capable of managing the complex nature and features of technology. When they are confident that these services are consistent with their financial requirements, they develop positive intentions towards active use. Furthermore, as their usage increases and their actual experiences surpass their perceptions, their positive affinity for technology-based financial services may strengthen..

One very important finding of the study is that quality of access to the internet has a significant moderating effect on the positive relationship between attitude and intention to use fintech services. Reliability and speed of internet access are positive factors that promote positive attitudes towards technology and thereby lead to future behavioural intentions. Such access can foster a soothing usage experience and make meeting their financial requirements easier. Such experiences contribute to higher satisfaction, enhancing their perceptions of the utility of technology adoption. In India, free connectivity in public spaces is on the rise. In addition, the increase in speed of data transfer, lowering of data usage costs, and easing of restrictions on usage have surely contributed to positive effects. Probably, another important factor is the deep penetration of compatible hand-held devices like mobile phones, which allows hassle-free and convenient access to connectivity and services. Higher digital literacy among the young working class may also enable them to choose connectivity solutions more effectively. It is unsurprising that the influence of subjective norms on behavioural intentions is not significantly moderated by connectivity availability. With digital and connectivity solutions being almost equal among various service providers in the market, it is hardly convincing to think that peer groups can exert moral or emotional pressure regarding choosing service providers or technology usage. On the other hand, we were surprised to find that quality and access to connectivity were not significant moderators of the cause-and-effect relationship between perceived behavior control and intention to use financial technology. It may be logical to hypothesize that better access to internet connections may strongly influence individuals' beliefs about doing technology-based activities with confidence and positive outcomes. Probably, because the study sample includes only young working people, their long experience with hand-held devices and active use of social media platforms may have instilled in them ways to manage connectivity issues. A different sample with a higher age group may reveal a different picture. In this context, it is important to note that Wang, Wang, and Li (2022) found that the internet and its use can have a mediating and moderating effect, promoting perceived behavior control over actual behavior.

When we tested the moderation effect of digital skills, the findings were slightly different. The cause effects of attitude and perceived behaviour control on behavioural intention to use fintech services were significantly positively moderated by digital skills. Higher levels of digital skills, resulting from increased use of digital devices, can enhance the digital skills of individuals. Moreover, frequent upgrades to hardware devices and software packages would necessitate the acquisition of the necessary skills to stay updated, particularly among the younger class. Upgrading their digital skills would result in a better perception of the ease of using financial technology services. Evidence shows that people with higher digital skills are better able to navigate through interfaces in technology-based applications and, as a result, perceive these systems as user-friendly. Therefore, digital skills play a positive role in shaping attitudes towards actual usage of these services. Higher digital skills, particularly among

young people, can increase their awareness of accessing new opportunities. This would help them develop positive attitudes towards using technology in the future. Improved digital skills can also be a significant contributor to digital self-efficacy, whereby an individual has self-belief in his ability to perform the activities in fintech services. Such people can possess greater skills of adaptability to the new demands of change, thereby exhibiting greater intentions to adopt and use new technology-based financial services.

7. CONCLUSION

Researchers investigated the usefulness of the Theory of Planned Behaviour in explaining the intention of young working people in India to adopt digital financial technology. The study employed attitudes, subjective norms, and perceived behaviour control as predictors of behavioural intention from the Theory of Planned Behaviour (TPB) model, while the quality of internet access and digital skills served as moderators. The importance of the study lies in the fact that India is largely recognized as a technologically transformative landscape. The study, which used 324 Indian young employed people as a sample, confirmed the effectiveness of the TPB model. The predictors accounted for 48.7 percent of the variation in behavioural intention to use financial technology. Moreover, we found that the quality of internet access significantly moderated the positive effect of young workers' attitude on their intention to use fintech; however, access to the internet did not significantly influence the effects of perceived behaviour control and subjective norms on the intention to use financial technology. The study found that digital skills significantly moderated the positive effects of attitude and perceived behavioural control on the intention to use fintech services, while the effect of subjective norms on intention was not significant. With wireless access to the internet improving with time and with increasing penetration of connectivity, we assume that the quality of access to the internet may not be very important in creating self-belief among young users about how the usage is under their control. India, once considered a traditional country, has been slow to adopt Western technology. The Government of India's digital inclusion initiatives have created a tremendous push for the adoption of the latest technology in service delivery, even for the rural poor. The development of digital infrastructure, the delivery of government services through digital channels, and efforts at improving digital literacy can prove to create positive outcomes in terms of the adoption of digital and technology-based financial services. The economic reforms of the past have now given way to digital reforms.

Future studies on the intention to adopt digital services can also focus on how government initiatives have acted as a vehicle for the rapid digitization of the Indian economy. A focus may also be made on whether there is a digital divide among the rural and urban populations and to gain insights into its causes.

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REFERENCES

Acemoglu, D., Hazell, J., & Restrepo, P. (2020). *AI and jobs: Evidence from online vacancies.* NBER Working Paper Series, No. 28257.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behaviour and Human Decision Processes, 50*(2), 179-211. https://doi.org/10.1016/0749-5978(91)90020-T

Ajzen, I., & Driver, B. L. (1991). Prediction of leisure participation from behavioral, normative, and control beliefs: An application of the theory of planned behavior. *Leisure Sciences, 13*(3), 185-204. https://doi.org/10.1080/01490409109513137

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behaviour*. Englewood Cliffs, NJ: Prentice-Hall.

Ajzen, I., Joyce, N., Sheikh, S., & Cote, N. G. (2011). Knowledge and the prediction of behavior: The role of information accuracy in the theory of planned behavior. *Basic and Applied Social Psychology, 33*(2), 101-117. https://doi.org/10.1080/01973533.2011.568834

Arafat, Y., & Ibrahim, M. I. M. (2018). The use of measurements and health behavioral models to improve medication adherence. In Social and administrative aspects of pharmacy in low-and middle-income countries. *Social and Administrative Aspects of Pharmacy in Low- and Middle-Income Countries*, 53-69. https://doi.org/978-0-12-811228-1

Asare, M. (2015). Using the theory of planned behavior to determine the condom use behavior among college students. *American Journal of Health Studies, 30*(1), 43-50. https://doi.org/10.47779/ajhs.2015.168

Bagozzi, R., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Sciences, 16*, 74-94. http://dx.doi.org/10.1007/BF02723327

Baker, W. E., Al-Gahtani, S. S., & Hubona, G. S. (2007). The effects of gender and age on new technology implementation in a developing country: Testing the theory of planned behavior (TPB). *Information Technology & People, 20*(4), 352-375. https://doi.org/10.1108/09593840710839798

Bosnjak, M., Ajzen, I., & Schmidt, P. (2020). The theory of planned behaviour: Selected recent advances and applications. *Europe's Journal of Psychology, 16*(3), 352-356. https://doi.org/10.5964/ejop.v16i3.3107

Brynjolfsson, E., Rock, D., & Syverson, C. (2019). Artificial intelligence and the modern productivity paradox: A clash of expectations and statistics. In Agarawal A., Gans J. and Goldfarb (Eds.), The Economics of Artificial Intelligence: An Agenda. In (pp. 23–57): University of Chicago Press.

Carriere-Swallow, Y., Haksar, V., & Patnam, M. (2021). *Stacking up financial inclusion gains in India. Finance & Development. Internationa Monetary Fund.* Retrieved from https://www.imf.org/external/pubs/ft/fandd/2021/07/india-stack-financial-access-and-digital-inclusion.html

Clark, L., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment, 7*, 309-319.

Cohen, J., West, S. G., Cohen, P., & Aiken, L. (2003). *Applied multiple regression/correlation analysis for the behavioural sciences* (3rd ed.). Hillsdale, NJ: Lawrence Erlbaum.

Cooper, G., Barkatsas, T., & Strathdee, R. (2016). *The theory of planned behaviour (TPB) in educational research using structural equation modelling (SEM). In: Barkatsas, T., Bertram, A. (Eds.), Global Learning in the 21st Century. Global Education in the 21st Century Series.* Rotterdam: Sense Publishers. https://doi.org/10.1007/978-94-6300-761-0_9.

Das, S. K. (2015). *Aadhaar-based financial inclusion for the poor. Making the poor free? India's unique identification number*. Retrieved from https://doi.org/10.1093/acprof:oso/9780199453290.003.0014

Deloitte. (2016). *Digital: A revolution in the making in India: Confederation of Indian industry*. Retrieved from https://www2.deloitte.com/content/dam/Deloitte/in/Documents/technology-media-telecommunications/in-tmt-digital-revolution-in-making-cii-noexp.pdf

Deloitte. (2017). *Fintech in India: Ready for breakout. Internet and Mobile Association of India.* Retrieved from https://www2.deloitte.com/content/dam/Deloitte/in/Documents/financial-services/in-fs-fintech-india-ready-for-breakout-noexp.pdf

Deloitte. (2017a). *Fintech in India: Ready for breakout.* Retrieved from https://www2.deloitte.com/content/dam/Deloitte/in/Documents/financial-services/in-fs-fintech-india-ready-for-breakout-noexp.pdf

Ernst, & Young. (2022). *The winds of change trends shaping India's fintech sector: Edition II. payments council of India, fintech convergence council, Ernst & Young. The winds of change - trends shaping India's FinTech sector.* Retrieved from https://globalfintechfest.com/theme/default/doc/GFF-winds-of-change.pdf

Felten, E., Raj, M., & Seamans, R. (2021). Occupational, industry, and geographic exposure to artificial intelligence: A novel dataset and its potential uses. *Strategic Management Journal, 42*(12), 2195-2217. https://doi.org/10.1002/smj.3286

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behaviour: An introduction to theory and research.* Reading, MA: Addison-Wesley.

Gefen, D., & Straub, D. (2005). A practical guide to factorial validity using pls-graph: Tutorial and annotated example. *Communications of the Association for Information Systems, 16*, 91-109. https://doi.org/10.17705/1CAIS.01605

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). Thousand Oaks, CA: Sage Publications Inc.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Planning, 46*, 1-12. https://doi.org/10.1016/j.lrp.2013.01.001

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science, 43*, 115–135. https://doi.org/10.1007/s11747-014-0403-8

Henseler, J., & Sarstedt, M. (2013). Goodness-of-fit indices for partial least squares path modeling. *Computational Statistics, 28*, 565-580. https://doi.org/10.1007/s00180-012-0317-1

IBEF. (2023). *Science and R&D industry report.* Retrieved from https://www.ibef.org/industry/science-and-technology

Khrais, L. T., & Alghamdi, A. M. (2021). Investigating of mobile learning technology acceptance in companies. *Ilkogretim Online, 20*(3), 1382-1393.

Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). New York: Guilford Press.

Lee, J., Cerreto, F. A., & Lee, J. (2010). Theory of planned behavior and teachers' decisions regarding use of educational technology. *Journal of Educational Technology & Society, 13*(1), 152-164.

Limna, P., & Kraiwanit, T. (2022). The rise of fintech: A review article. *STOU Academic Journal of Research and Innovation (Humanities and Social Science), 2*(2), 35-46.

Lynne, G. D., Casey, C. F., Hodges, A., & Rahmani, M. (1995). Conservation technology adoption decisions and the theory of planned behavior. *Journal of Economic Psychology, 16*(4), 581-598. https://doi.org/10.1016/0167-4870(95)00031-6

Malin, S., & Tyagi, A. (2023). *India's demographic dividend : Key to unlocking its global intentions. S& P Global.* Retrieved from https://www.spglobal.com/en/research-insights/featured/special-editorial/look-forward/india-s-demographic-dividend-the-key-to-unlocking-its-global-ambitions#:~:text=India%20is%20home%20to%20more,is%20expected%20to%20hit%2059%25

Mathieson, K. (1991). Predicting user intentions: Comparing the technology acceptance model with the theory of planned behavior. *Information Systems Research, 2*(3), 173-191. https://doi.org/10.1287/isre.2.3.173

Mobarak, A. M., & Saldanha, N. A. (2022). Remove barriers to technology adoption for people in poverty. *Nature Human Behaviour, 6*(4), 480-482. https://doi.org/10.1038/s41562-022-01323-9

Morris, M. G., Venkatesh, V., & Ackerman, P. L. (2005). Gender and age differences in employee decisions about new technology: An extension to the theory of planned behavior. *IEEE Transactions on Engineering Management, 52*(1), 69-84. https://doi.org/10.1109/tem.2004.839967

Nunnally, J., & Bernstein, I. (1978). *Psychometric theory.* New Delhi: Tata McGraw-Hill.

Over 50% Indians. (2023). *Over 50% Indians are active internet users now; base to reach 900 million by 2025: Report. Hindu.* Retrieved from https://www.thehindu.com/news/national/over-50-indians-are-active-internet-users-now-base-to-reach-900-million-by-2025-report/article66809522.ece

Pavlou, P. A. (2017). What drives electronic commerce? a theory of planned behavior perspective. In Academy of management proceedings. In (Vol. 2002, pp. A1-A6). Briarcliff Manor, NY 10510: Academy of Management. https://doi.org/10.5465/apbpp.2002.7517579.

Ryan, S., & Carr, A. (2010). Applying the Biopsychosocial model to the management of rheumatic disease. IN K. Dziedzic & A. Hammond (Eds.), Rheumatology. In (pp. 63-75). Edinburgh: Churchill Livingstone.

Sniehotta, F. (2009). An experimental test of the theory of planned behavior. *Applied Psychology: Health and Well-Being*, *1*(2), 257-270. https://doi.org/10.1111/j.1758-0854.2009.01013.x

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

Teo, T., & Lee, C. B. (2010). Explaining the intention to use technology among student teachers: An application of the theory of planned behavior (TPB). *Campus-Wide Information Systems*, *27*(2), 60-67. http://dx.doi.org/10.1108/10650741011033035

Teo, T., Zhou, M., & Noyes, J. (2016). Teachers and technology: Development of an extended theory of planned behavior. *Educational Technology Research and Development*, *64*, 1033-1052. https://doi.org/10.1007/s11423-016-9446-5

Van Deursen, A. J. A. M., Helsper, E. J., & Eynon, R. (2014). *Measuring digital skills. From digital skills to tangible outcomes project report*. Retrieved from www.oii.ox.ac.uk/research/projects/?id=112

Wang, X., Wang, Z., & Li, Y. (2022). Internet use on closing intention–behaviour gap in green consumption—a mediation and moderation theoretical model. *International Journal of Environmental Research and Public Health*, *20*(1), 365. https://doi.org/10.3390/ijerph20010365

Yoo, B., & Donthu, N. (2001). Developing a scale to measure the perceived quality of an internet shopping site (SITEQUAL). *Quarterly Journal of Electronic Commerce*, *2*(1), 31-45.

Yu, T.-K., Lin, M.-L., & Liao, Y.-K. (2017). Understanding factors influencing information communication technology adoption behavior: The moderators of information literacy and digital skills. *Computers in Human Behavior*, *71*, 196-208. https://doi.org/10.1016/j.chb.2017.02.005