

# Reverse FinTech Socialisation: A Remedy for Financial Exclusion in the Digital Era

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## ABSTRACT

Technology has brought unprecedented changes in the financial realm, and its benefits were evident during the times of COVID-19. Nonetheless, digital divide has kept fintech out of the reach of many. Digital financial exclusion needs practical solutions to bring positive attitudes and confidence to use fintech among these segments. This is an original work that suggests reverse fintech socialisation as a tool to create such confidence within the digitally excluded. Employing a cross-sectional design, a sample of 349 middle-aged mothers was drawn from Kerala, India to examine the relationships between attitude, reverse socialisation, and confidence to deal in fintech. Findings supported the hypothesised relations between these variables and revealed that attitude predicts reverse fintech socialisation, which has a very high influence on confidence. Age, income, and income earner in the family too were found significant for confidence. Findings imply that policymakers can formulate interventions that make use of the youth to create confidence within the digital immigrants to use fintech.

## KEYWORDS

COVID-19, Digital Financial Inclusion, Digital Immigrant, Financial Socialisation, FinTech Adoption, FinTech Attitude, FinTech Confidence, FinTech Self-Efficacy, India, Reverse Socialisation

## INTRODUCTION

The 21<sup>st</sup> century witnessed rapid technological growth, and its impact is clearly visible in the world of money and finance. Fintech, which means those innovative financial services or products delivered via technology, is one of the fastest-growing segments in the technology industry (Chen, 2016). According to the Global Findex Database from World Bank Group (2017), around one-fifth of adults had mobile wallets, and more than half of the adults had made or received digital payments. However, the ‘new normal’ emerged as a result of the COVID-19 pandemic demands higher rates of adoption of digital tools and technology in finance. There was a huge disparity in the popularity of fintech and digital financial solutions among different generations before the pandemic due to the differences in their relative expertise and exposure to such products. The fear of spread of the disease during the pandemic has led to minimal visits to banks and ATM counters, and reduced the use of paper

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currency. Krivkovich et al. (2020) found that all fintech businesses grew since the crisis began, and people from all backgrounds started using them.

The usage of fintech tools is believed to grow in the future too, and it is important to ensure that everyone becomes its beneficiaries and no one is financially excluded in the digital era. Several groups of people face relative disadvantages when access to fintech and similar digital financial tools is considered. Friedline et al. (2019) state that the poor and the marginalised from rural communities have very little access to fintech. Another category that has limited access to fintech is the people born before the digital era, or “digital immigrants” as they are often called (Prensky, 2001). Digital financial inclusion is, thus, providing digital access to formal financial services to the excluded population. Access to digital financial services can promote financial inclusion by overcoming the institutional barriers of traditional finance and can increase the pace of financial inclusion by providing cost-effective financial services (Ghosh & Chaudhury, 2020). At the same time, digital financial literacy is an important prerequisite for digital financial inclusion.

Even though Baby Boomers and Generation X have gained enough knowledge and experience in managing different options in traditional finance, it is challenging for them to adapt to the revolutionary changes happening in the information technology sector. In families, younger generations enjoy greater expertise in digital technologies when compared to their parents (Ekström, 2007; Plowman et al., 2010; Setiawan et al., 2020). There arises the significance of reverse financial socialisation related to fintech products wherein children or younger generations act as socialising agents for their parents. When youngsters teach their parents how to access and use fintech products, it can improve parents’ digital financial literacy, which then leads to digital financial inclusion. Older generations would, thus, be able to accept, adopt and use fintech products and services confidently.

However, there exists hardly any literature that specifically studied how reverse socialisation can be used as a tool to generate fintech knowledge and confidence among the digital immigrants. The present study aims to bridge this research gap by analysing how reverse fintech socialisation can be used as a remedy for digital financial exclusion. The researchers, in this study, assume that there is a positive relationship between the attitude of adults towards fintech products, reverse fintech socialisation occurring to them and their confidence in using such products. The effects of variables such as the age of the adult, age of the child, family income and income earner in the family are also evaluated in this study. This is the first study that attempts to connect variables such as attitude, reverse socialisation and confidence related to fintech usage. Therefore, it also aims to contribute to the present nascent literature in this area.

Keeping these objectives in mind, the remaining part of the paper is divided as follows. A thematic review of the theoretical background and literature related to attitude towards fintech, confidence to use fintech and reverse fintech socialisation are given in the next section, followed by the background of the research model and hypotheses. The research methodology is elaborated in detail in the subsequent section. The findings are presented in tables and their interpretations are given in the results section, followed by a discussion on the findings. Finally, the paper concludes by giving theoretical and practical implications, limitations, and directions for future research.

## **BACKGROUND**

India’s fintech market is fast growing with the highest global fintech adoption rate (Invest India, 2021). Even though there exists an efficient technical infrastructure and system for financial matters in India from the supply side (Saroy et al., 2020), the real problem lies in the levels of financial literacy and inclusion that remain comparatively low among adults (OECD, 2020). Research suggests that women are more prone to financial exclusion, are highly likely to display lower levels of financial literacy than men and possess less confidence in their financial knowledge and skills (Bucher-Koenen et al., 2021). Digitisation of finance can bring down the cost of service delivery and speed up the pace of financial inclusion (Ghosh & Chaudhury, 2020; Saroy et al., 2020), and improve financial

knowledge, skills, attitudes and behaviours (McKillop et al., 2020). Though digital financial literacy has positive effects on actual behaviours, Setiawan et al. (2020) found that it can also be affected by socio-economic characteristics such as age, income and education.

### **Attitude to Fintech Adoption**

The digital divide and other concerns with fintech need constructive interventions by imparting education in digital financial tools and providing institutional support which would create positive attitudes to adopt fintech products and services (Das & Das, 2020; Vally & Divya, 2018). Several researchers argue that the attitudes of end-users to any technology play a great role in the adoption of that technology (Akinwale & Kyari, 2020; Baptista & Oliveira, 2016). Al-Dmour et al. (2021) found that age and gender play insignificant roles in the intention to adopt e-payment systems compared to education levels which they found significant. Yaokumah et al. (2017) identified that customers of the male gender and younger age possess better skills to use e-payment services. Younger generations have positive attitudes toward fintech products and use them more often when compared with baby boomers and Gen X, who are showing keen interest to embrace such services lately (Das & Das, 2020; Krivkovich et al., 2020).

### **Confidence in Fintech**

Individuals' confidence in using fintech can be better related to fintech self-efficacy, as self-efficacy is a domain or situation-specific self-confidence (Bandura, 1977). According to Bucher-Koenen et al. (2021), one-third of the gender gap in financial literacy can be explained by the lower confidence levels of women and not due to the lack of actual knowledge. Self-efficacy related to technological products have positive effects on their perceived usefulness (Chen et al., 2011), intention to use (Yoon & Lim, 2020) and actual usage (Burkhardt & Brass, 1990). According to Compeau and Higgins (1995), high levels of technological self-efficacy make people confident to use such tools in everyday life, and they can easily adapt to technological innovations. Shiau et al. (2020) argue that self-efficacy related to fintech involves self-efficacies in two domains, namely financial self-efficacy and technological self-efficacy. They found that both these variables directly affect perceived usefulness and have indirect effects on an individual's intention to continue fintech usage. Healthy attitudes and self-efficacy in financial matters also positively affect actual behaviours (Serido et al., 2013).

### **Reverse Fintech Socialisation**

Socialisation has its origins in consumer studies where it is recognised as a process by which youngsters acquire knowledge, skills, and attitudes (KSAs) to function as consumers in the marketplace (Ward, 1974). Even though there are several socialising agents, most of the studies focus on parental socialisation as they are the first people with whom children interact, and they exert relatively greater influence on children's learning and behaviour (Grohmann et al., 2015; Pinto et al., 2005). In financial socialisation, one internalises knowledge, attitudes and behaviours as well as values, norms and standards related to money and finance from socialising agents. Past studies suggest that financial skills obtained by an individual during childhood affect his or her financial behaviour and well-being during adulthood (Jorgensen & Savla, 2010; Serido et al., 2010; Shim et al., 2010).

Reverse socialisation is more significant in the era of the digital revolution as the millennials have more expertise about these innovations when compared with their parents (Ekström, 2007; Plowman et al., 2010). Jiao and Wei (2020) define reciprocal or reverse socialisation as the "process in which children influence and alter their parents' attitudes and behaviours." The idea of reverse socialisation was introduced by Mead (1970), who argued that, in prefigurative societies, cultural socialisation occurs in the opposite direction, i.e., from youngsters to parents. Children's influence on parents can be found across all ranges of products including inexpensive ones such as food items to expensive ones such as cars (Dotson & Hyatt, 2005; Marquis, 2004).

Foxman et al. (1989) identified knowledge as an important factor determining adolescents' influence on their parents. Children's family characteristics and environment affect their learning and decision-making process the most, and their influence over parents increased with their age and resource ownership, and differed based on product class (Beatty & Talpade, 1994; Ekström et al., 1987; Wang et al., 2007). Watne et al. (2011) investigated how children influence parents' decisions regarding the purchase of computers and high-tech products and they found children to be important secondary socialisation agents. The study also found that men are likely to possess more knowledge when compared to women, because of which mothers seek their children's advice.

Ekström et al. (1987) state that a person who is more related to a product would be more active in the decision process related to it. The higher technological exposure of the younger generations helps them to learn and use the new technology better than their parents. Their faster rates of learning and comfort levels with new technology also give them an edge over the previous generation (Grossbart et al., 2002). However, young generations not only bring social, cultural and technological innovations into the family but also become teachers and promoters of practices related to such innovations. Kalmus (2007) discovered that children of the information technology era help their parents and teachers use the internet and computers. Similarly, when technology is involved in managing finance, we may witness reverse socialisation where younger generations act as socialising agents of fintech products.

## **RESEARCH MODEL AND HYPOTHESES**

Several models have tried to explain technology acceptance and adoption by individuals. Even though the Technology Acceptance Model (TAM) by Davis et al. (1989) is the most researched one among all, a lot of such models, including the TAM itself, are inspired from the Theory of Reasoned Action (TRA) by Fishbein and Ajzen (1975). According to TRA, actual behaviour is influenced by behavioural intention which itself is a product of attitude towards that behaviour and subjective norms. Thus, TRA asserts that any factor that influences behaviour initially influences attitude and subjective norms that would then have their weights on behaviour.

TAM (Davis et al., 1989) also builds on these assumptions and believes that both perceived usefulness of a new technology and its perceived ease of use are key to influencing an individual's attitude towards using it. TAM focuses on the individual's attitude as a predictor of behavioural intention and leaves out subjective norms from the start. Patil et al. (2020) argue that TAM, even though predominantly used in existing fintech studies, was developed primarily in organisational context, has a deterministic approach and has little consideration for users' characteristics. In the Extended TAM or TAM2 (Venkatesh & Davis, 2000), the attitude component was removed and the individual's perceptions of technology were given central roles, along with social influences (for subjective norms). They were believed to influence the intention to use the technology.

Later, Venkatesh et al. (2003) integrated several models of technology acceptance to form the Unified Theory of Acceptance and Use of Technology (UTAUT). This model has four major constructs to predict an individual's acceptance of new technology. These are performance expectancy (for perceived usefulness), effort expectancy (for perceived ease of use), social influence and facilitating conditions. 70 percent of the usage intention was found to be explained by these constructs. However, van Raaij and Schepers (2008) criticised that the UTAUT is less parsimonious than TAM and TAM2 as its high  $R^2$  is achieved only when moderating key relationships with up to four variables. They also found problems in the grouping and labelling of items and constructs, especially for facilitating conditions and social influence.

Considering the drawbacks of TAM, TAM2 and UTAUT, the researchers chose to build upon basic model, i.e. TRA, in the context of the present study for our conceptual model. Li (2020) argues that simple and practically implementable models having research targets that are sampled and segmented properly can achieve reasonable predictive power. The researchers consider attitude to fintech in place of attitude, reverse fintech socialisation in place of subjective norms or social influences, and

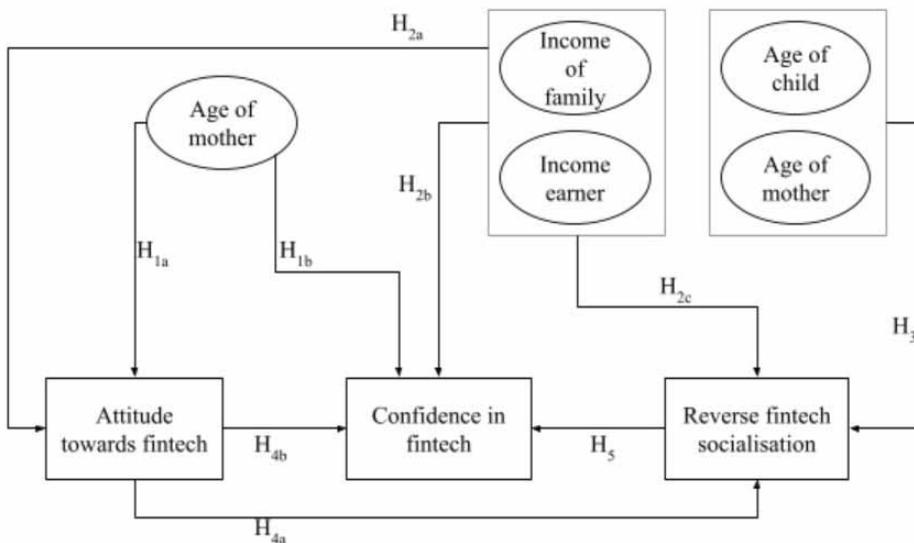
confidence to use fintech for behavioural intention to use technology. Since the study is contrived as a pioneering work in the fintech area, devising a simple model that operationalises equivalent variables from a well-established model in the study’s particular context was considered ideal.

Technology acceptance and confidence in technological products are related to attitude towards it (Erdem, 2015; Pan, 2020). Patil et al. (2020) also found that the intention to use fintech is significantly influenced by attitude and social influence. Akinwale and Kyari (2020) argue that social influence positively and significantly impacts users’ attitude towards fintech which in turn is significant in adopting fintech. Past research also suggests that socialisation interactions with parents help develop domain-specific self-confidence (Lee & Mortimer, 2009) and thereby affect actual actions (Wachs et al., 2020). Since older generations started developing keen interest and positive attitudes towards fintech during the pandemic (Krivkovich et al., 2020), studying the relationship between their fintech attitude, reverse fintech socialisation and confidence in using fintech would help in introspecting the assumption that reverse fintech socialisation leads to the effective application of such tools by adults in their lives and thereby help minimise the digital financial exclusion.

As the literature suggests that children have relatively better levels of knowledge and experience with technological products than their parents (Das & Das, 2020; Krivkovich et al., 2020), the researchers assume that reverse socialisation in fintech would act as a solution to digital financial exclusion and bring down the digital divide between generations. Since women were found to have lower levels of experience with technology products (Watne et al., 2011), the scope of the study is confined to reverse socialisation occurring between child and mother. Based on the literature review, the researchers have developed a conceptual model for the study and hypothesised the relationships between the study variables. Figure 1 shows the research model with directions of relationships between variables.

The researchers propose that the age of the mother, income of the family and income earner in the family have an influence on both parent’s attitudes towards fintech and their confidence to use it, and age of both mother and child, income levels and income earner have an influence on reverse fintech socialisation. The researchers also propose that reverse fintech socialisation is influenced by parent’s attitudes towards fintech, and parent’s confidence to use fintech is influenced by both parent’s attitudes and reverse socialisation. The research hypotheses are set in the following manner:

Figure 1. Conceptual Framework



- H<sub>1</sub>**: Age of the mother is significant in their attitude to fintech and confidence in fintech.
- H<sub>2</sub>**: Income of the family and income earner in the family are significant in mothers' attitude to fintech, confidence in fintech and reverse fintech socialisation.
- H<sub>3</sub>**: Age of the mother and age of the child are significant in the reverse fintech socialisation happening to the mother.
- H<sub>4</sub>**: Mothers' attitude to fintech has a positive influence on reverse fintech socialisation and their confidence in fintech.
- H<sub>5</sub>**: Reverse fintech socialisation has a positive influence on mothers' confidence to deal in fintech.

## METHODOLOGY

### Sample and Data Collection

The data for this study were obtained from a household-based survey conducted among middle-aged women having children aged between 16 to 30 years, drawn from the state of Kerala in India, from January to April, 2021. A multi-stage sampling technique was employed where the state is divided into three geographical zones initially, and one district is chosen randomly from each zone. The three districts selected are Thiruvananthapuram, Kottayam and Malappuram. Three local self governing bodies - two rural and one urban - each were shortlisted from these three districts. Subsequently, three panchayat/municipal wards each were selected using simple random sampling from these nine local bodies. The total number of households in each of these 27 wards were identified from administrative records. From them, a total of 405 households were selected using simple random sampling, with 15 households from each ward. As this study is a pioneering work in understanding the impact of reverse fintech socialisation on fintech inclusion, the researchers planned to limit the scope of the initial research only to the three main variables and to a small and accessible geographical area.

Before beginning the data collection, some conditions have been laid down for the households to be eligible for the survey: 1) There should be at least one member who is between 16 and 30 years who would act as the primary socialising agent for fintech products or services, and 2) The mother of the person specified in the first condition is alive. Thus, during the data collection phase, those households forming part of the selected sample that did not qualify for these conditions are replaced with new units which satisfied both these conditions. Each of these households were approached and asked for the willingness of the mother to participate in the survey. From the 405 households, 367 mothers committed to the study. Even though data were collected from these 367 respondents using a structured interview schedule, a careful inspection and data cleansing identified only 349 valid responses, which were selected for further analysis.

### Measures

The researchers employed an empirical cross-sectional research design to observe the relationships between different variables under study. Data were collected using a schedule having four segments, namely demographic characteristics of the respondents in the form of age, family income and income earner, parent's attitude towards fintech (PAF), reverse fintech socialisation (RFS) and parent's confidence in fintech (PCF). Among these, PCF is the major outcome variable. The items used to measure the variables under study were self-developed after an extensive literature review of the previously established scales in related areas. Since all these three variables are unique to this study, the researchers, instead of adopting any related scale, built upon them new scales after several rounds of deliberations.

The study used five statements for measuring PAF, six statements for PCF and seven statements for RFS on five-point Likert type scales ranging from "strongly disagree" ('1' point) to "strongly agree" ('5' point). These statements are given in the Appendix. After selecting the items, content validity was ensured by seeking help from experts who rated all of them as clearly representative

of the variables under study. The tools used for analysis included mean, standard deviation (SD), correlation, linear regression and ANOVA. Reliability of the scales was tested using Cronbach's alpha, in which all variables had good internal consistency with alpha coefficients above 0.8. The Cronbach's alpha scores obtained for PAF, PCF and RFS respectively were 0.857, 0.948 and 0.918. Confirmatory Factor Analysis also fetched favourable results for all three variables indicating that the scales effectively capture what they intend to capture. Construct validity of the scales were ensured using convergent and nomological validities within and between the variables respectively. Item-total correlation obtained in case of PAF were between 0.64 and 0.71, that of PCF were between 0.78 and 0.89, and it was between 0.62 and 0.82 for RFS. Significant correlations were obtained between the variables, namely attitude, reverse socialisation, and confidence, as per literature (see Table 3).

## RESULTS

Table 1 shows the mean and SD scores of the attitude of parents towards fintech (PAF), their confidence in using fintech (PCF) and the levels of reverse fintech socialisation occurring between them and their children (RFS), classified based on age. On the whole, an average mother exhibited PAF, RFS and PCF scores well above the median value of three. Mothers above 50 years of age had the lowest levels of PAF, PCF and RFS, while mothers below 40 years scored the highest in all these three variables. When the age of children is considered as the independent variable for RFS, those who are between 21 and 25 years of age are the most helpful in socialising with their mothers and teaching them how to handle financial technology products. It is followed by children between 16 to 20 years of age, and RFS scores are least for those mothers whose children are between 26 to 30 years of age. Altogether, PAF, RFS and PCF scores of mothers tend to decrease with their age.

One-way ANOVA tests were carried out to check whether the differences in mean PAF and PCF scores based on mothers' age were significant or not (Hypothesis  $H_{1a}$ ), and the results are given in Table 3. Mothers' age was found to be a significant factor affecting their confidence in using fintech products (PCF) at 1 percent level (Hypothesis  $H_{1b}$ ), whereas it had no such effect on their attitude towards fintech (PAF) (Hypothesis  $H_{1a}$ ). Two-way ANOVA was proposed to test the significance of mean differences in RFS scores based on the age of the mother and age of the child (Hypothesis  $H_3$ ). Levene's Test of Equality of Error Variance also supported this proposition. Results of the Two-way ANOVA from Table 3 reveal that both the age of the mother and age of the child neither independently nor jointly predict RFS scores at significant levels. Thus, the tests did not support researchers' hypotheses in the cases of  $H_{1a}$  and  $H_3$ , while it was supported in the case of  $H_{1b}$ .

The mean scores and SD of PAF, RFS and PCF classified based on family income and income earner are given in Table 2. A careful analysis of the table shows that as the annual income of the family increases, these scores improve. Moreover, the attitude, reverse socialisation and confidence scores increase as the earning member changes from 'husband only' to 'me only' to 'both me and husband'. Having a higher income for the family, especially when the respondent is an earning member, can be an important factor in showing a positive attitude and confidence towards adopting technology in personal finances and reverse fintech socialisation. Women who are the sole breadwinners in families with very low income scored the least on the PAF scale, whereas mothers who belong to households that earn very low income solely by their husbands exhibited the lowest scores in RFS and PCF.

As Levene's Test of Equality of Error Variances fetched favourable results with  $p > 0.05$  in the cases of both PAF and RFS, Two-way ANOVA tests were taken up to know whether the differences in mean scores in these variables are significant or not, based on family income and income earner. The results of the Two-way ANOVA are given in Table 3, and they prove that both family income and income earners independently have significant effects on the attitude of mothers towards fintech (Hypothesis  $H_{2a}$ ) and their reverser fintech socialisation (Hypothesis  $H_{2c}$ ). However, they do not jointly predict both these variables. Since Levene's Test of Equality of Error Variances did not support Two-way ANOVA in the case of PCF (Hypothesis  $H_{2b}$ ), One-way ANOVA tests were carried out to test

Table 1. Age-wise Distribution of Mean and SD Scores of PAF, PCF and RFS

Age of Mother		PAF	PCF	RFS			Overall RFS
				Age of Child			
				16-20	21-25	26-30	
Upto 40 years	n	44		43	1	-	44
	Mean	3.3591	3.5871	3.5150	3.8571	-	3.5227
	SD	0.5617	1.0495	0.8606	-	-	0.8521
41-45 years	n	82		34	45	3	82
	Mean	3.2902	3.3252	3.0714	3.5238	3.9524	3.3519
	SD	0.6727	1.0563	0.7413	0.8324	0.5774	0.8193
46-50 years	n	157		33	90	34	157
	Mean	3.2522	3.3949	3.3247	3.6000	3.0378	3.4204
	SD	0.7251	1.0854	0.9565	0.6643	0.7028	0.7722
Above 50 years	n	66		4	32	30	66
	Mean	3.0424	2.9192	3.6071	3.3929	2.7333	3.1061
	SD	0.7496	1.1710	0.7319	0.7148	0.8243	0.8316
Total	n	349		114	168	67	349
	Mean	3.2350	3.3128	3.3308	3.5417	2.9424	3.3578
	SD	0.7034	1.1055	0.8631	0.7207	0.7915	0.8122

Table 2. Income and Income Earner-wise Distribution of Mean and SD Scores of PAF, RFS and PCF

Annual Income of the Family		Income Earner									Overall		
		My husband only			Me only			Both me & husband					
		PAF	RFS	PCF	PAF	RFS	PCF	PAF	RFS	PCF	PAF	RFS	PCF
Below Rs 1,00,000	n	39			7			-			46		
	Mean	2.487	2.095	1.667	2.171	2.408	1.881	-	-	-	2.439	2.143	1.699
	SD	0.4124	0.3742	0.3355	0.4957	0.3240	0.6215	-	-	-	0.4354	0.3810	0.3907
Rs 1,00,000 to Rs 2,00,000	n	47			24			2			73		
	Mean	2.575	2.632	2.082	2.650	2.708	2.514	3.100	3.000	2.833	2.614	2.667	2.244
	SD	0.4266	0.4168	0.5570	0.4501	0.3963	0.4421	0.4243	0.0000	0.0000	0.4376	0.4070	0.5584
Rs 2,00,000 to Rs 4,00,000	n	28			34			44			106		
	Mean	3.171	3.250	3.327	3.429	3.424	3.574	3.577	3.789	3.905	3.423	3.530	3.646
	SD	0.6247	0.4306	0.6690	0.5972	0.4017	0.6682	0.4340	0.3951	0.5976	0.5625	0.4636	0.6772
Above Rs 4,00,000	n	8			26			90			124		
	Mean	3.450	3.786	4.063	3.754	4.000	4.058	3.756	4.113	4.330	3.736	4.068	4.255
	SD	0.6392	0.3741	0.3326	0.4572	0.3741	0.5675	0.4206	0.3928	0.3689	0.4465	0.4051	0.4300
Total	n	122			91			136			349		
	Mean	2.741	2.678	2.365	3.220	3.322	3.302	3.688	3.992	4.170	3.235	3.358	3.313
	SD	0.5839	0.6531	0.9235	0.7267	0.6773	0.9189	0.4360	0.4350	0.5194	0.7034	0.8122	1.1055

Table 3. Summary Results of Hypotheses Tests

		PAF	RFS	PCF
Age of Mother	F	2.332	0.687	4.091**
Age of Child	F	-	1.089	-
Age of Mother * Age of Child	F	-	1.662	-
Family Income	F	32.436***	76.412***	373.019***
Income Earner	F	3.464*	8.721***	168.249***
Family Income * Income Earner	F	1.931	1.278	-
PAF	R	1	0.771	0.792
	Adj R <sup>2</sup>		0.593***	0.627***
RFS	R	-	1	0.918
	Adj R <sup>2</sup>	-		0.843***
PAF * RFS	R	-	-	0.928
	Adj R <sup>2</sup>	-	-	0.860***

\* p<0.05, \*\* p<0.01, \*\*\* p<0.001

the significance of the differences in mean PCF scores of mothers based on both family income and income earner, and the results are provided in Table 3. They suggest that both the independent variables are significant in influencing the confidence of mothers towards the adoption of fintech products into their daily finances. Thus, the tests partially supported the researchers' hypothesis related to H<sub>2</sub>.

Table 3 shows the correlation and simple linear regression coefficients of the relationships between PAF, RFS and PCF. Significant positive correlations were found between PAF and RFS, PAF and PCF, and RFS and PCF. ANOVA was used to test the significance of regressions, and the tests supported researchers' hypotheses H<sub>4</sub> and H<sub>5</sub>. PAF, when taken alone, has significantly good effects on both RFS and PCF (Hypothesis H<sub>4</sub>), and RFS, when taken alone, also has significant positive associations with PCF (Hypothesis H<sub>5</sub>). However, RFS has a much bigger effect on PCF than what PAF has on PCF. RFS single-handedly predicts 84.3 percent variation in PCF. Also, PAF has almost similar effects on both RFS and PCF. The coefficient scores of the correlation and regression analyses of the effects of both PAF and RFS taken together on the confidence of mothers to deal with fintech products are also given in Table 3. 86 percent of PCF are predicted by both PAF and RFS. This effect was found to be significant at a 1 percent level of significance. The test also revealed that RFS plays a more prominent role in influencing PCF than PAF, with a beta coefficient value of 1.031 as against 0.327, when p < 0.001.

## DISCUSSION

This study sought to evaluate the relationship of factors such as attitude towards fintech (PAF), reverse fintech socialisation (RFS) and confidence in the adoption of fintech (PCF) of middle-aged mothers. Other than PAF, the relatively new element incorporated in the study, namely RFS, based on subjective norms in TRA (Fishbein & Ajzen, 1975), was expected to have an effect of PCF. The authors first investigated how various demographic characteristics such as the age of the mother, income of the family and income earner influence these three variables and the impact age of the child has on RFS. Results suggest that the mother's age and the child's age are not significant in

RFS. This finding is significant because it confirms that RFS occurs almost equally among mothers of all age groups and children of all age groups, and therefore, it is a good method to impart fintech literacy. The analysis also revealed that mothers who are relatively younger have more confidence to deal with fintech products, even though their attitude towards fintech is not significantly different from that of older mothers.

Younger mothers may have better exposure to modern technological equipment like smartphones when compared with older mothers, which might be why they have more confidence in dealing with fintech products. On the contrary, a better attitude towards technology emerges due to various other factors, including levels of education, income etc., and age may only have very little impact on it. Concomitantly, attitude towards fintech is more related to perceived usefulness of technology, which is what a user believes that using a particular technology will be helpful to him/her in enhancing his/her performance (Davis, 1989), and therefore is relatively more abstract a concept. On the contrary, confidence in using fintech is related more to perceived ease of use, which is the degree to which the user thinks that learning and using the system would be easy for him/her and is free from effort (Davis, 1989), and therefore would have more impact on actual behaviour. Therefore, younger mothers may perceive fintech as easier to learn and use, whereas they may not have significantly higher levels of belief in its usefulness.

Another major finding was that higher income groups have better attitudes towards fintech and higher degrees of reverse fintech socialisation. One factor for this may be the lower levels of access to financial products in general, and fintech products in particular, for people from lower economic backgrounds. At the same time, wherever the mother is an earning member, there occurs better attitudes and reverse fintech socialisation. Having income gives women greater financial freedom to make decisions related to money, and therefore such women tend to have practical usages of money. However, their relative lack of access to fintech products resulting from the digital divide when compared with younger generations pushes them to seek help from children.

At the same time, those women from high-income backgrounds generally have better education and may also encounter their children being exposed to smartphones, computers and other technical equipment. This could help in developing a positive attitude towards technology within them. This might be the major reason behind higher earning and co-earning women exhibit better levels of reverse fintech socialisation. Since income is a major limiting factor for access, use and literacy related to technological products, children from lower economic backgrounds may find it difficult to use fintech products and share them with their parents. People from higher income brackets were also found to exhibit more confidence in the adoption of fintech, confirming the findings of Friedline et al. (2019).

The researchers also evaluated how parents' attitude towards fintech affects reverse fintech socialisation and hypothesised that this attitude predicts reverse socialisation. Results revealed that mothers who show positive attitudes towards fintech tend to have better levels of reverse fintech socialisation. Reverse fintech socialisation was also found to have stronger effects on the confidence of mothers to use technology than the direct impact of attitude on confidence. This suggests that reverse fintech socialisation can lead to better confidence levels to use fintech even though attitude towards fintech is not that good. The finding that both attitudes to fintech and reverse fintech socialisation have significant influence on the confidence of parents to use fintech confirms the relationships established between attitude, subjective norms and behavioural intention as per TRA (Fishbein & Ajzen, 1975).

The research shed light on the significance of reverse fintech socialisation in the confidence of middle-aged mothers regarding the acceptance and adoption of fintech products and the role their attitude towards fintech plays in it. Positive effects of reverse socialisation on confidence were found across all age and income groups. These findings suggest educating less tech-savvy parents by their children as the most simple and cost-effective method for imparting confidence in them regarding the adoption and use of fintech products. As there is sparse literature on reverse socialisation in fintech and its relationship with people's attitude and confidence to use fintech, this study could shed some light on the topic. The study confirms the findings of other research which found positive attitude as an important precursor

of confidence. Simultaneously, evidence for the significance of external reinforcements in bringing such positive outcomes is strengthened by this study. The study also adds to the literature on financial socialisation, reverse socialisation, digital financial inclusion and fintech adoption.

## **CONCLUSION**

The difficulty of older generations or digital immigrants to adapt to new technology raised the significance of reverse fintech socialisation and led to this study. Children can be teachers to their parents the same way parents act as socialising agents for their children. The study revealed that the attitude of older generations regarding fintech has an effect on their confidence in using them, especially when reverse fintech socialisation occurs between the child and the parent. It also supports the assumptions of TRA which say that both attitude towards a behaviour and subjective norms has an influence on the intention of individuals to engage in that behaviour. Based on these findings, the researchers propose that interventions aimed at improving attitude of the digitally excluded towards technology and reinforcing social influence from the side of the digitally included would help in creating confidence and behavioural intentions to use fintech among the elderly.

For the first time, it gave empirical evidence for the importance of attitude towards fintech in predicting reverse fintech socialisation, which in turn has significant effects on the confidence to deal in fintech. Demographic variables like age of the parent, family income and income earner were also found to be significant in their confidence to use fintech. Even though reverse socialised parents have better levels of confidence, this understanding of demographic differences implies the need for more effective tools for imparting fintech education. Evolving efficient mechanisms for reverse fintech socialisation would also help fintech companies to increase their business volumes by bringing more digital immigrants to their network.

## **Theoretical and Practical Implications**

These findings contribute to a broader discourse in digital financial inclusion, especially regarding the role the younger generations could play in socialising their parents to use fintech applications. There will be an expansion in the products and services that use technology and the internet in the coming few years, and their success is complete only when all sections of the society benefit from them. Apart from delivering low cost and secured fintech services to customers, fintech institutions and policymakers should develop a deeper understanding of the attitudes and confidence levels of individuals, particularly of the marginalised sections, to use fintech in order to ensure effective service delivery. Having the confidence to use fintech products, namely fintech self-efficacy, is one of the prerequisites to create the intention to use them. Policymakers and fintech service providers can target the younger generations to act as intermediaries to create this confidence and intention among the digital immigrants.

## **Limitations and Scope for Future Research**

This study had certain limitations that every cross-sectional survey research faces which the researchers wish to acknowledge. The researchers relied on subjective data collected at a single point of time rather than following a pre-test, treatment and post-test format, which would have been more effective in measuring the impact of reverse fintech socialisation on parents' confidence. Also, firsthand information on the actual behaviour of parents while using fintech could not be collected, which otherwise would have added to the efficacy of the results. Another major methodological limitation was that the data for this study were collected only from Kerala, India, which has relatively high levels of financial inclusion, financial and women's literary and internet penetration. There has been sparse literature on the precedence of research in this area, and the researchers built the conceptual framework and model based on available evidence, which also needs critical introspections.

These limitations suggest opportunities for future research. Follow up studies can improve the scope of the research, enlarge the sample size and conduct studies in the contexts of different cultures, especially among marginalised cultures from different parts of the world, so that results and models can be validated better. As mentioned earlier, longitudinal studies can also be taken up by giving timely interventions to the users so that changes happening to them at every stage or using different methods can be measured. Future researchers should look for other factors related to reverse fintech socialisation and fintech acceptance, including parents' trust in children, actual practice and use of fintech products, fintech literacy, etc. so that the conceptual framework of the present study can be broadened.

### **CONFLICT OF INTEREST**

The authors of this publication declare there is no conflict of interest.

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## APPENDIX

Table 4. Statements used to measure the variables under study

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
<b>Parent's Attitude towards Fintech (PAF)</b>					
1. There is no need to be afraid of technology while dealing with money					
2. Technology, once learned, will give us an edge in personal finances					
3. Learning fintech applications gives me confidence in managing money					
4. There is no reason to distrust fintech solutions, if carefully used					
5. We don't need to carry money if we know how to deal in fintech					
<b>Reverse Fintech Socialisation (RFS)</b>					
1. I approach my child for any queries related to digital finance and its uses					
2. My child taught me to make online payments while making purchases					
3. My child taught me to transfer cash electronically					
4. My child taught me to pay my bills through cards and net banking					
5. My child is now my teacher on fintech applications					
6. My child is eager to teach me new fintech options					
7. I feel proud to learn new things from my child					
<b>Parent's Confidence in Fintech (PCF)</b>					
1. I confidently do online banking transactions					
2. Online banking transactions are now quite easier for me					
3. Now, I'm quite confident in using mobile wallets and digital payment apps					
4. Now, I'm sure, I will not lose my money on electronic transactions					
5. It is now comfortable to use my bank cards for making transactions					
6. I have the confidence to try out new options of fintech					

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