

Fintech Adoption in Non-Banking Sector: A Technology Acceptance Model Perspective

Sandhyadevi J., Vinaya Sreepal



Abstract: *Fintech or financial technology originated in India as a fairly young sector. Non-banking financial companies (NBFCs) in India performs a vital role in meeting the monetary needs of the individuals and businesses and are now more concentrated on developing disruptive technology-driven solutions that enable the smooth creation, launch, deployment and execution of customized products and services. In this scenario, this study tries to understand the Fintech adoption behaviour of customers of NBFCs. It also aims to understand important demographic trends in Fintech adoption behaviour. The research is basically centered on the Technology Acceptance Model, which combines brand and service trust in order to explain the impact on behavioral intention. This study is undertaken as an exploratory study among the customers of NBFCs in Kerala during a period of three months in 2019. Using Confirmatory Factor Analysis, it's found that the model is a good fit and hypothesis path analysis proved that all variables that were considered affect behavioral intention positively. It is also found some demographic factors embracing Fintech.*

Keywords: *Fintech, Non-Banking Financial Companies, Technology Acceptance Model, Behavioral Intention, Confirmatory Factor Analysis*

I. INTRODUCTION

With the advent of technology and changing consumer demands, technologically enabled financial institutions are racing up to provide faster and efficient financial services to customers. The NASSCOM-KPMG reports say that India's overall demand for Fintech apps and services was around \$8 billion in 2016, which is expected to rise 1.7 times in 2020. This new and diverse market is inhabited by many startups, while conventional banking and non-banking industries play to catchup. Knowing and recognizing the behavioral intention of conventional NBFC customers towards the adoption of Fintech products is important in that sense.

Fintech is a hypernym introduced in the past few years to represent the technological innovations impacting financial services. According to the BIS Financial Stability Board

(FSB), Fintech is technologically enabled financial innovation that could result in new business models, applications, processes, or products with an associated material effect on financial markets and institutions and the provision of financial services.

Fintech acceptance in India has substantially increased over the last two years, and according to Ernst and Young's Fintech Adoption Index 2017, India has progressed to become the second-highest Fintech adoption market (52 %) among 20 major markets worldwide. Fintech acceptance in India is seen mostly in age group from 25 to 34 (74%) years followed by 35-44 years (70%), followed by 45-54 years (54%), as per the Fintech Adoption Index of the EY in 2017. In gender-wise classification, they found that 64% of males are well adopted to Fintech products vis a vis 58% in the case of females.

Regional adoption of Fintech services in India mirrors global trends. Fintech usage in major cities in India is substantially high, with 66% adoption rate as against 42% globally. As Fintech firms expand their focus to tier-III and IV cities, they have started witnessing increased adoption and usage (51%). Rural areas in India is currently lagging at an adoption rate of 33% due to many reasons, including weak literacy, restricted exposure to telecommunications/ delivery channels and failure to compensate for even comparatively lower costs of Fintech applications.

As per the EY Fintech adoption index 2017 and other various reports, money transfer and payment apps being the mostly adopted technology, same is considered here as the Fintech product for research purposes. The primary goal of this study is intended to illustrate the key aspects influencing willingness of the customers in Fintech adoption and thereby allowing the conventional NBFCs to perform successfully in the Fintech industry. Since no previous study has done on Fintech adoption in NBFC sector, and this is being the only study done so far in India, insights from this study will be useful for NBFC's when designing their digital products. This study also intends to find the demographic trends in embracing Fintech adoption.

II. LITERATURE REVIEW

Financial technology, commonly defined as Fintech, is an emerging field made up of companies leveraging technologies to render financial services highly productive (McAuley, 2014) [1]. In other words, Fintech or financial technology can be termed as " the innovation in financial services," according to the National Digital Research Center in Dublin,

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Ireland, adding that "the term has begun to be used for broader space technology applications – front end consumer goods, new entrants competing with established players and even modern paradigms such as Bitcoin."

The Technology Acceptance Model (TAM) was created by Davis (1986) and was used to describe the effect of external factors on human internal perceptions and attitudes.

He claimed that TAM often found that personal attitudes about utilizing the information system influenced behavioral intentions [2]. In addition to this Davis, Bagozzi, and Warshaw (1989) focused on the Theory of Reasoned Action (TRA) that proposed a theoretical concept to suit the nature of the operation of information systems [3]. Svendsen, Johnson, Sorensen, and Vitterso (2013) have promoted the usage perceived usefulness and perceived ease of use as two different variable sets to investigate the actions of consumers in embracing IT [4].

"Trust" is about people related to individuals, individuals and artifacts, or other related stuff. The main components of trust are kindness, integrity, and ability (Doney & Cannon, 1997) [5]. Heijden, Verhagen and Creemers (2003) suggested that the perception trust and interactions while using modern technologies should have a significant impact on the purchase attitude of a customer. If customer's trust in a brand and its service is stronger, the disposition of purchasing is more optimistic [6].

"Attitude" is defined both by perceived usefulness and perceived ease of use. The willingness of a customer to adopt to a novel technology can be enhanced by making them feel that the new technology is simple to use and they will be benefitted by using it (Chau & Hu, 2002) [7].

"Perceived usefulness" means the concept that the prospective customers identify the emerging technologies to be beneficial in terms of job performance and may gain in the future (Venkatesh & Davis, 2000; Moon & Kim, 2001) [8] [9].

"Perceived ease of use" refers in so far as how the potential consumers find it easy to use the new innovations (Venkatesh & Davis, 2000; Moon & Kim, 2001) [8] [9].

Most of the recent researches has shown that the frame of mind of customers or attitude has a major positive impact on human behavioral intent (Venkatesh & Davis, 2000) [8]. The interests, likes and dislike, motivation etc. of potential users can be assessed by identifying the social norms, and the behavioral intention of current users is based on their attitudes and behavior towards such kind of technology related applications. The level of subjective and objective customer assessment when using Fintech product is the most significant factor influencing how Fintech service will be used by clients [10].

III. RESEARCH METHODOLOGY

A. Conceptual framework

For this review TAM is used as the basis for constructing a structural framework, and related literature is referred for developing the same. Here four independent variables are defined in deciding the dependent variable behavioral

intention. The independent variables are brand and service trust, perceived usefulness, perceived ease of use and attitude. The conceptual model is depicted below.

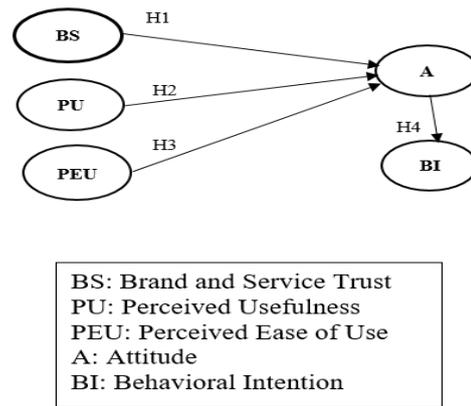


Fig. 1. Research model

B. Sampling and data collection

Primary and secondary methods of gathering data were applied in relation to the research goals. Primary data was obtained using a standardized questionnaire and a five-point Likert scale was used, ranging from highly disagreeable to highly agreeable. After a comprehensive literature study, an exploratory research was performed.

A random sampling approach has been deployed to gather data from two major NBFCs in Kerala. Since the research was undertaken for Reserve Bank of India, Trivandrum, NBFCs were selected on the basis of customer base in Kerala. The study was conducted in Ernakulam and Trivandrum districts of Kerala

IV. HYPOTHESIS

- H1: Brand and service trust contributes positively towards the consumer's attitude in using Fintech applications.
- H2: Perceived usefulness contributes positively towards the consumer's attitudes in using Fintech applications.
- H3: Perceived ease of use contributes positively towards the consumer's attitudes in using Fintech applications.
- H4: Consumer's attitude toward using Fintech service contributes positively towards behavioral intention of customers in using Fintech applications

V. ANALYSIS AND FINDINGS

IBM SPSS and AMOS were used to evaluate the conceptual model proposed and to understand the significance of each of the variables listed. Confirmatory Factor Analysis (CFA) provided a calculation model for all the subsequent Structural Equation Modeling constructs. Goodness of fit is tested using Confirmatory Factor Analysis for these models.

Model fit-indices	χ^2/df	P-value	RMSEA	GFI	RMR	NFI	CFI	IFI	RFI
Model criteria	<3	<0.05	<0.08	>0.9	<0.05	>0.9	>.9	>.9	>.9
Measurement	1.57	.000	.069	.873	.031	.923	.970	.970	.902

Fig.2



As shown in Fig. 2, all the test indicators are well met with testing standards. So, this model is a good fit. A path analysis of the relationships between the dimensions of brand and service trust (BS), perceived usefulness (PU), perceived ease of use (PEU), attitude (A) towards using and behavioral intention (BI) to use was built from the empirical analysis and test results of the study.

Hypothesis	Path	Path value	C.R	
H1	BS to A	0.37	4.719***	Supported
H2	PU to A	0.31	2.994**	Supported
H3	PEU to A	0.19	2.027*	Supported
H4	A to BI	0.85	14.916***	Supported

***P<.001 **P<.01 *P<.05

Fig. 3

For a regression weight, when critical ratio (CR) is > 1.96, the path is significant at the point of 0.05. Here, all the hypothesis is supported, i.e. all the independent variables such as brand and service trust, perceived usefulness, perceived ease of use has a strong significant influence on attitude and attitude contributes positively towards behavioral intention.

To find the Fintech adoption intention across demography, a descriptive analysis is done. Mean value of behavioral intention is found across each demographic variables and major conclusions were drawn accordingly. Men has shown a high adoption intention than women which is in line with the findings of EY Fintech Adoption Index 2017. It is found that people above >45 age show more adoption intention followed by people having age group between 35-45 which is just against the findings of EY Fintech Adoption Index 2017 where they have found people >45 are least adopted to Fintech.

VI. CONCLUSION

From the results, it can be understood that NBFCs should concentrate on creating confidence in the brand and the operations. It is also analyzed after careful observation from the brand study, brand image can be utilized by the companies and by taking advantage of their brand value profile, such as its longevity, long history and trustworthiness, trust queries or trust related issues of a customer can be solved. Sustained technological improvements are also very much required, as modern advances allow consumers not only to perceive the utility of the technology, but also to experience the convenience in using the modern technology; as they can be the crucial drivers for increasing satisfaction among the customers with the enhanced performance and operating environment

SCOPE FOR FUTHER RESEARCH

This research was limited to two cities in Kerala and in particular to the NBFC customers. Also, this research primarily considered a single most popular Fintech product, online payment apps, since other Fintech products are at embryonic stage in India and yet to known and use by customers. Future research can be incorporated to study the adoption behaviour towards other products also particularly P2P lending etc. which is emerging as an alternative form of lending, and being a new category of NBFC recognized by

RBI. For improving and understanding of customer behaviour, other factors such as situational variables and social norms etc. should also be inculcated in the proposed model.

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