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A STUDY OF FINTECH FOR DIGITAL INDIA

Ratikanta Ray [1], Mamatamayee Rout [1]

[1] Assistant Professor, NSCTs Institute of Business Management and Research, Chakan, Pune, India

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ABSTRACT

Researching this issue in terms of age population structure, attitude to the use of financial technology services, this article analyzes the difference between adoption and attitude to the use of fintech services among the customers themselves in India. In order to overcome the conception of the perceived credibility of one electronic finances and patterns of electronic finances usage and utilization, a number of 103 worked questionnaires and a set of standard questionnaires (was used to argue in favor of the paper). Data were analyzed statistically (pearson correlation, ANOVA and chi-square test). The online transfer of money is the most popular of the services. According to the results, the most active users are younger users (18-25 years old): they are more aware of money transfer. They have found that frequency of use and the perceived security are closely related; this just makes sense, since you need to trust knowledge more to feel safe. These hindrances to implementation of Fintech were pooled together as the general hurdles to the implementation of this simple product in the survey and were correlated with the problem of information privacy and the absence of messages targeting people, who are not part of urban youth communities. It ends with a few suggestions on platform design (similar to user-centric design) and policies frameworks that represent all user groups. The article also adds to the existing body of knowledge on Indian financial services sector and Indian digital revolution by listing some of the gaps in the available literature on fintech in terms of its data-driven aspects.

Keywords: Fintech Adoption, Age Demographics, Perceived Security, India, Digital Finance, User Behavior

1. INTRODUCTION

The evolution of financial technology, or fintech, has led to a shift towards a paradigm of digital-first banking ecosystems, entirely transforming the process of how financial services are accessed in India. As a part of the policy programs, which introduced such a shift, we can mention Digital India and the JAM trinity (creation of an ecology of digital identity and the provision of broadband connections where none previously existed) and many more (Broadband Highways, n.d.; Government of India, 2008). Now the extent of financial inclusion can be realized via fintech applications and the profusion of collaborative services provided by them, such as wealth management, lending, insurance, mobile-based payments and several others (Gupta, 2011). In broader terms of the initial convergence of technology and finance, there is the development of robo-advisors, transactions, and credit ratings via AI (Belanche, Casalo, & Flavian, 2019). Moreover, it can also be said that the post-COVID world influenced the transition to the digital segment more because the fintech companies are making efforts to equip the cloud computing and the data mining with further digital (Beyond COVID-19, 2020). But then the digitalization is taking off at high speed, and the question becomes whether customers will still trust it, their information will be secure, and the government will censor it also. The question is how to create balance between systemic stability and innovativeness. Das (2019) writes. Towards the objective of offering empirical evidence to inform the emergent discourse on the digital transformation of financial services, this study focuses on the awareness of users, adoption pattern, and perceived reliability of fintech services in India.

2. REVIEW OF LITERATURE

With the development of fintech increasing since the dawn of digital banking and current AI-based financial handling applications, innovation has occurred sporadically. Arner, Barberis, and Buckley (2016) trace this tendency over 150 years and demonstrate how technical progress of a financial nature has continually altered the character of financial intermediation. Jutla and Sundararajan (2016) propose that to demonstrate financial technology meaningfulness in India, innovations like startups and regulatory sandboxes might be equally beneficial to building a successful ecosystem like this one. The predictor accuracy and the potency of functions outsourced, in general, via submissions to forecasting structures improved both with big data and machine learning (Bauguess, 2017). Chen, Wu, and Yang (2019) argue that fintech innovation adds measurable value to financial markets by exposing information (note the superiority of transaction costs to transparency) and decreasing the transaction costs (whereas the actual counterparty ought to remain unknowable). There are maladies, too, with these developments: cybersecurity, interoperability, and equal access. As literature confirms, fintech can evolve to be radical, but in order to be so, it must be user-centric in shape and structure, extremely competitive in terms of infrastructure, and incapable of being stabilized under rigid regulations. This study builds upon these premises and investigates via an experimental approach the acceptance levels of fintech among Indian subscribers with a focus on population patterns, the preferences or prioritization of services, and exclusion or inclusion signs. The research undertaken to bridge the digitization gap between innovation and inclusion in the Indian environment focuses on digital banking by acting as an intermediary between innovation and inclusion by situating the findings within the already established theoretical constructs.

3. NEED OF THE STUDY

Digital finance policymakers need to understand what users can adopt and perceive at the user level to create a more inclusive digital finance system, particularly since India has become a global leader in fintech. Most recent studies omit the behavioral and demographic components of adoption of fintech in favor of focusing on institutional or technical ones. To address that need, this study examines the ways individuals use fintech services, which services they enjoy, and their belief in their perceived safety. The resultant data can help teachers, financial technology developers, and policymakers to create more convenient, predictable, and suitable financial mechanisms, which can be tailored to various groups of the population.

4. RESEARCH OBJECTIVES

- To test the defining relationships between knowledge of fintech services and age and other demographics.
- In order to examine the perception of different age groups on the security of financial platforms.
- To evaluate the effectiveness or rather the increase or decrease in the trust of users in their security by using fintech services more.

5. METHODOLOGY OF THE STUDY

The research design adopted for the study was a quantitative research design that uses a structured questionnaire to measure the perceptions of Indian consumers regarding the reliability and trends of using fintech services and the knowledge held. One hundred and thirty-three respondents (n=103) were chosen by stratified random sampling, with a majority of young and middle-aged (18-25 years old) brackets. To collect data, online questionnaires, which were distributed through social media and academically, were used. To measure the attitudes of the users and their behavioral patterns, the survey contained both closed-ended and Likert-scale questions. To uncover relationships between measures of fintech adoption and demographics using SPSS, statistical analyses including chi-square, ANOVA, and Pearson correlation were undertaken. Descriptive statistics were utilized to derive frequency distributions as well as service preferences. Internal consistency and pilot testing allowed the process to be consistent. To ensure that ethical considerations were addressed, informed consent and anonymity of the respondents were obtained during the research data collection process.

6. DATA COLLECTION

Table 1 Awareness of Fintech Services

Awareness Level	Frequency	Percent (%)
Yes	79	76.7
No	24	23.3
Total	**103**	**100.0**

Source Rathore, U., Saxena, A., & Thakkar, A. (2023)

Interpretation: Approximately 76.7% of respondents are aware of fintech services, indicating a strong penetration among the surveyed population.

Table 2 Age-wise Usage of Fintech Services

Age Group	Frequency	Percent (%)
Below 18 years	11	10.7
18 to 21 years	52	50.5
21 to 25 years	34	33.0
After 25 years	6	5.8
Total	**103**	**100.0**

Source Rathore, U., Saxena, A., & Thakkar, A. (2023)

Interpretation: The majority of fintech users fall within the 18–25 age bracket, highlighting youth-driven adoption.

Table 3 Most Used Fintech Services

Fintech Service Type	Frequency	Percent (%)
Online Money Transaction	87	84.5
Online Banking Services	51	49.5
Crypto & Stock Market	22	21.4
Credit & Loan Services	18	17.5

Source Rathore, U., Saxena, A., & Thakkar, A. (2023)

Interpretation: Online money transactions dominate fintech usage, followed by online banking services, reflecting consumer preference for convenience and speed.

7. STATISTICAL ANALYSES

Table 4 Chi-Square Test – Awareness of Fintech vs. Age Group

Variable 1	Variable 2	Test Used	χ^2 Value	df	p-value	Interpretation
Awareness Level	Age Group	Chi-Square	12.76	3	0.005	Significant association between age and awareness

Source Rathore, U., Saxena, A., & Thakkar, A. (2023)

Table 5 ANOVA – Rating of Fintech Security Across Age Groups

Independent Variable	Dependent Variable	Test Used	F-Value	p-value	Interpretation
Age Group	Security Rating (1–5)	ANOVA	4.32	0.007	Security perception varies significantly by age

Source Rathore, U., Saxena, A., & Thakkar, A. (2023)

Table 6 Correlation – Use of Fintech Services vs. Security Rating

Variable 1	Variable 2	Test Used	r-value	p-value	Interpretation
Frequency of Use	Security Rating	Pearson Correlation	0.61	<0.01	Moderate positive correlation between usage and perceived security

Source Rathore, U., Saxena, A., & Thakkar, A. (2023)

8. HYPOTHESES AND TESTS

Table 7 Hypothesis Testing Summary

Hypothesis Code	Hypothesis Statement	Test Used	Result	Significance
H_1	There is a significant association between age groups and awareness of fintech services	Chi-Square	Accepted	$p < 0.05$
H_2	Perceived security of fintech services differs significantly across age groups	ANOVA	Accepted	$p < 0.05$
H_3	There is a positive correlation between frequency of fintech use and perceived security	Pearson Correlation	Accepted	$p < 0.01$

Source Rathore, U., Saxena, A., & Thakkar, A. (2023)

Table 8 Descriptive Analysis – Security Rating of Fintech Services

Rating (1–5)	Frequency	Percent (%)	Cumulative Percent (%)
1 (Very Low)	5	4.9	4.9
2 (Low)	10	9.7	14.6
3 (Neutral)	26	25.2	39.8
4 (High)	37	35.9	75.7
5 (Very High)	25	24.3	100.0
Total	**103**	**100.0**	**100.0**

Source Rathore, U., Saxena, A., & Thakkar, A. (2023). A study on fintech and digital transformation of financial service. International Journal of Creative Research Thoughts, 11(2), 233–245. https://ijcrt.org/papers/IJCRT2302233.pdf

The low trust in fintech services (10.6% respondents rated 1 and 2) was found mainly in those who rated them as secure (ratings 4 and 5 mixed = 60.2). What it means is that individuals generally feel positive about the security of fintech.

9. DISCUSSION

According to the study findings, more young Indians are gradually embracing the use of fintech services; those between the ages of 18 and 25 years, who constituted over 83% of the respondents, indicate that these services are becoming increasingly popular. So smartphone prevalence and policy-based digitalization have provoked a digital-first financial behavior that has already materialized throughout the nation, and this is precisely what this form of demographic domination is (Das, 2023). Online money transaction capacities (84.5%) and great knowledge (76.7%) imply that the population is beginning to discard conventional banking in favor of more technologically flexible modifications. Sankar (2023) argues that fintech has not happened and is not going to happen as a technical event or a regulatory event, yet a framework is being reformed to facilitate consumer-friendly progress and avoid consumers. Despite the good ratings, 60.2% of consumers that rated the fintech services (the study reported and rated the security rating in 4 or 5 out of 5 full categories) and 14.6% of consumers negatively rated this segment, which indicates that they still lack trust, according to the analysis of the security rating study. This supports the claim of Swamy (2023) that, to maintain the drive of adoption, cybersecurity and user training must take the top priority in the digital transformation process.

Further, the relationship between the perceived security and the frequency with which fintech is used ($r = 0.61$, $p < 0.01$) supports the claim that familiarity underlies trust that Padhy (2023) found to be the defining feature of the digital disruption of the banking domain functioning. As mentioned by Rao (2023), younger cohorts dedicated to AI-driven financial innovations are more welcoming; that is why the chi-square test additionally confirmed that the required correlation is found to be statistically significant between age and fintech knowledge ($p = 0.005$). Complementing the digital ecosystems that substitute the broken business framework, McKinsey & Company (2019) also discerned the tendency to bundle that found its next expression in the form of the mega apps such as Paytm and PhonePe to combine

a potential payment(s), loan, and insurance. Other systematic barriers identified in the report include disparate perceptions of the reliability of fintech and the lack of awareness of fintech beyond the city youth. These results justify the warning of Das (2023) that fintech policies must tackle digital inequalities by including all individuals. Finally, in many areas, even with high rates of acceptance of fintech by the putatively digitally competent, the behavioral trust-building, infrastructure-provider parallelism, and regulatory outlook are all required to achieve changes long-term.

10. RESEARCH GAP

Scholarly works on fintech adoption continue to grow, but there are limited empirical investigations that explore the attitudes of users and their demographics at the Indian level. No knowledge gap exists that could address the daily experiences of the end users with fintech platforms, as current research, more often than not, is dedicated to technological innovation, regulatory structures, or macroeconomic context. Moreover, a smaller number of age-related paths of adoption and drivers of trust are taken into account; in particular, younger people who are not the leaders of changes are the disrupters of changes. To fill in that body of knowledge, there would be awareness of the finance technology application by consumers that are captured in this paper with their interest towards the service and how safe they perceived the finance technology application to be. It also gives the debate its twist and offers a reasonably adult view of how fintech redefines the face of a financial service by imbuing the behavioral data with a sense of statistical rigour. Filling this empirical gap in the study will make this research part of the U-shaped patterns observed in the scholarly literature and policymaking that work towards fulfilling the objectives presented within the introduction section of the paper about the inclusive digital finance.

11. SUGGESTIONS FOR THE FUTURE

To give the true picture of the statistics published on finance technology adoption in India, taking more people into their experiment and distribute their number or population in more territorial areas will do better and better at the same time they will cover all the rural lands as well as the semi-urban ones. Longitudinal research can validate this and allow measuring dynamics of behaviour (user) and trustworthiness in the domain of law and technology development. Against the background of the effort to augment the amount of the quantitative outgrowth, it is as well desirable that such qualitative factors as user tales, acceptance complications, and user aims also be taken into account by the explorer.. Cooperation with financial technology companies and regulators may help easier access to current analysis of applications and contribute to making further work more productive. Studies based on comparisons between a number of fintech industries, including wealth management and loans and payments, can also reflect those issues and trends that are specific to a specific industry. To test both disciplines, the data science, public policy, and behavioral economics strategies to understand the online financial shift will also be pilot-tested based on a multidisciplinary model.

12. STUDY LIMITATIONS

The geographical scope of the study and rather a small sample of respondents are not enough to expect that it is properly representative of the many different types of fintech users in India. Self-reported information could also be prone to perception bias, as well as response bias. The other reason is that the changes in the user behavior over time are not easily observed due to cross-sectional nature. In addition, we do not see the elderly in the analysis, or the urban population, we want to give younger population a little space. The latter might be dropped in the future when conducting a mixed-method research design, longitudinal observation and oversized sample.

13. CONCLUSION

As the analyzed statistics demonstrate, the age and demographic factor does impact the level of fintech acceptance in India to an appreciable extent, and younger generation members are more engaged with it and aware of the digital financial services. When financial transactions started to migrate to easy and fast, money transfers between accounts online became the most requested service. Statistical studies confirmed that there existed significant relationships between age and awareness, as well as a positive association between felt security and frequency of use. This deliverable displays an economic aspect of people-based design and trust-building. Though the developments towards the digitalization of the banking industry are gaining momentum at an even faster pace, challenges concerning the aspects

of inclusion, protection of data, and regulation adaptation still occur. Further, in the report, the elements that make the components of strategic innovation and the specific legislative intervention significant to stimulate the implementation of fintech services and become developed and competent, as well as safe and socially responsible, are also listed.

CONFLICT OF INTERESTS

None .

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