

A STUDY ON ENHANCING FINANCIAL INCLUSION THROUGH FINTECH WITH SPECIAL REFERENCE TO COIMBATORE CITY

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ABSTRACT

The rapid digital transformation of financial systems has led to the rise of FinTech, reshaping traditional banking models. FinTech companies leverage modern technology to provide financial services beyond traditional banking institutions, enhancing accessibility and efficiency. This study explores the competition and collaboration between FinTech firms and banks, analyzing the evolving financial ecosystem. Using statistical and comparative analysis, the research highlights global FinTech investment growth, regulatory challenges, and emerging business models. Findings suggest that banks are adapting by integrating FinTech innovations, while regulatory frameworks continue to evolve. The study identifies key trends, risks, and opportunities, emphasizing the need for adaptive strategies in the banking sector to address digitalization challenges.

Keywords: FinTech, Digital transformation, Financial services, Financial ecosystem, Digitalization.

INTRODUCTION

The rise of digital technologies has transformed the financial sector, leading to the emergence of FinTech companies that challenge traditional banking models by offering innovative, technology-driven financial services. These firms leverage AI, blockchain, and big data to enhance accessibility and efficiency, reshaping financial intermediation much like search engines revolutionized information access. As FinTech expands, questions arise about the possibility of financial services operating without traditional banks. This paper explores the competitive dynamics between banks and FinTech, key industry trends, regulatory challenges, and collaborative opportunities, offering insights into the evolving financial landscape.

STATEMENT OF THE PROBLEM

- The rapid adoption of FinTech solutions is reshaping customer expectations and financial behavior.
- Traditional banking institutions struggle to keep pace with the technological advancements introduced by FinTech firms.
- Consumers face challenges related to data privacy, cybersecurity, and trust in digital financial services.
- The evolving FinTech landscape directly influences customer satisfaction and service experience.

RESEARCH METHODOLOGY

A descriptive research approach will be employed to analyze the current state of FinTech adoption in Coimbatore's banking sector. This method will facilitate a comprehensive understanding of the trends, applications, and challenges associated with FinTech integration. The study will assess consumer perspectives, institutional strategies, and the broader implications of digital financial services in the region.

SAMPLE SIZE

The sampling size used for the study is 100 respondents.

SAMPLING TECHNIQUE

The sampling technique used for this study is convenience sampling.

TOOLS USED FOR THE STUDY

The SPSS software is used for the analysis part of the study.

- Chi-Square
- Percentage Analysis

HYPOTHESIS

- **H₀** - There is no significant relationship between demographic factors and FinTech adoption.
- **H₁** – There is a significant relationship between demographic factors and FinTech adoption.
- **H₂** – There is a potential trend in Fintech adoption based on demographic factors that may require further investigation.

LIMITATIONS

- Limited sample size may not fully represent the broader banking population.
- Self-reported data could introduce response bias, affecting accuracy.
- Focuses on current trends, making it difficult to assess long-term impacts.
- Findings are specific to Coimbatore, limiting applicability to other regions.

REVIEW OF LITERATURE

Inna Romanova and Marina Kudinska (2020)¹ Their study on “Fintech and banking trends, innovation, and challenges” highlighted the importance of fostering innovation and research in fintech. However, the study did not explore how fintech contributes to financial inclusion at a regional or urban level, leaving a gap in understanding the role of fintech in cities like Coimbatore.

Victoria Kovalenko (2021)² Their study on “Fintech sector and banking business” determined the benefits and drawbacks of bank-free financial services. While the findings explored global trends, the study did not analyze how fintech influences customer behavior in urban centers, leaving a gap in cities like Coimbatore.

Rajesh Gupta (2021)⁶ In their study on “Digital wallets and their impact on banking transactions”, the author assessed how digital wallets are transforming banking services. However, the study did not focus on adoption challenges faced by smaller cities like Coimbatore, leaving a gap in understanding localized fintech adoption.

Sanjay Kumar (2021)⁷ In their study on “The role of fintech in financial inclusion”, the author examined how fintech platforms have improved access to banking services for unbanked populations. However, the study focused more on rural and remote regions, with little attention to urban centers like Coimbatore, where the adoption of fintech may face different challenges.

RELATIONSHIP BETWEEN FINTECH AND BANKING SECTORS

Fintech is introducing in the financial landscape new products, new business models, new players. In this paper we elaborate on the relationship between Fintech and banks, bearing in mind that in the past innovation triggered widespread financial instability. We argue that Fintech represents a serious challenge for the traditional banking business model. However, we build on the evidence on the development of shadow banking to caution against early predictions of an irreparable decline of banking institutions. The financial industry, and especially the banking sector, is heavily regulated because of its role as a key infrastructure of market economies.

Disruptions in the supply of financial services may have huge consequences in terms of welfare losses as witnessed by the long history of financial crises, the last episode of the series being the global financial crisis of the past decade. In many circumstances financial innovation triggers widespread instability, which is why in academic research the balance between costs and benefits of competition in the industry is still an open issue (Thakor, 2011). Reaching an early understanding of transformations in the financial landscape induced by Fintech is then substantial to an efficient evolution of the regulatory framework. Furthermore, since most of the current regulation is institution-oriented rather activity-oriented, it is also crucial to assess how the new entrant Fintech firms fit into the framework and how the incumbent institutions react.

THE IMPACT OF FINTECH ON BANKING MARKET STRUCTURE

FinTech has disrupted the traditional banking model by offering digital-first, customer-centric solutions that challenge the dominance of banks. By leveraging advanced technologies such as artificial intelligence, blockchain, and big data analytics, FinTech firms provide financial services with greater efficiency and accessibility. Unlike banks, which rely on legacy systems and soft information-based customer relationships, FinTech firms use digital platforms to streamline operations. Many avoid banking licenses to reduce compliance costs while targeting profitable niches like digital payments, lending, and wealth management. This shift has led to increased regulatory scrutiny, with policymakers debating whether to integrate FinTech within existing frameworks or establish new regulatory guidelines tailored to the evolving financial landscape.

MATERIALS AND METHODS

1. To identify socio-economic background of the respondents.
2. To identify the general behaviour of the respondents on trends in Fintech models.
3. To develop a framework for evaluating Fintech adoption.

SCOPE OF THE STUDY

This study examines the impact of FinTech advancements on the banking sector, with a focus on Coimbatore city. It explores how traditional banks and FinTech startups are integrating digital innovations, the challenges they encounter, and the opportunities arising from technological adoption. The research also evaluates how these changes influence customer engagement, financial accessibility, and the competitive landscape of banking in the region.

PREPARATION OF TABLES

➤ **Objective- 1:** To identify socio-economic background of the respondents.

FREQUENCY

PERCENTAGE ANALYSIS

AGE

Table – 1.1

		Frequency	Percent	Valid Percent
Valid	Less than 20 years	59	59	59
	21 to 40 years	34	34	34
	40 to 60 years	7	7	7
	Total	100	100	100

Source: Primary data

INTERPRETATION:

There are 59 respondents who are below the age of 20, constituting approximately 59% of the total respondents. The largest age group consists of respondents aged between 21 and 40, with 34 individuals, making up about 34% of the total respondents. There are 7 respondents falling within the age range of 41 and 60, representing around 7% of the total respondents.

GENDER

Table – 1.2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	75	75	75	75
	Female	25	25	25	100
	Total	100	100	100	

Source: Primary data

INTERPRETATION:

The table indicates that out of 100 respondents, 75% are male, and 25% are female. This shows that the majority of FinTech adopters in the surveyed sample are male, while female respondents make up a smaller proportion. The cumulative percentage confirms that all responses have been accounted for, with males comprising 75% of the total and females making up the remaining 25%.

FAMILY TYPE

Table – 1.3

		Frequency	Percent	Valid Percent
Valid	Nuclear family	72	72	72
	Joint family	28	28	28
	Total	100	100	100

Source: Primary data

INTERPRETATION:

The table shows that out of 100 respondents, 72% belong to nuclear families, while 28% come from joint families. This indicates that the majority of FinTech adopters in the surveyed sample are from nuclear families, whereas a smaller proportion belongs to joint families.

➤ **Objective-2:** To identify the general behavior of the respondents on trends in Fintech models.

Table- 1.4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	72	72	72	72
	2	28	28	28	100
	Total	100	100	100	

Source: Primary data

The table shows that 72% of respondents exhibit a dominant behavior toward FinTech models, while 28% follow a different trend. This indicates a clear preference among the majority for a specific approach to FinTech adoption. The cumulative percentage confirms full respondent coverage, ensuring data reliability. These findings suggest that while a significant portion embraces FinTech trends, a smaller group may have reservations or alternative perspectives. Further research is needed to explore the factors influencing these behavioral differences and their implications for FinTech adoption.

Table- 1.5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	54	54	54	54
	2	46	46	46	100
	Total	100	100	100	

Source: Primary data

The table shows that 54% of respondents align with a particular FinTech trend, while 46% follow an alternative approach. The cumulative percentage reaching 100% ensures comprehensive data representation. The close margin between the two groups suggests a nearly balanced perspective on FinTech adoption, indicating diverse user preferences. Further investigation into the underlying factors influencing these behaviors could provide deeper insights into FinTech engagement patterns.

Table- 1.6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	40	40	40	40
	2	40	40	40	80
	3	20	20	20	100
	Total	100	100	100	

Source: Primary data

The table shows that 40% of respondents fall into the first category, another 40% into the second, and the remaining 20% into the third. The cumulative percentage reaching 100% confirms full data representation. The equal distribution between the first two groups suggests a shared preference or

behavior, while the smaller third group indicates a distinct but less common trend. Further analysis could help understand the factors driving these variations in FinTech adoption.

➤ **Objective-3:** To develop a framework for evaluating Fintech adoption.

CHI SQUARE

H₀: There is no significant relationship between demographic factors and FinTech adoption.

Table – 1.7

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.546a	4	0.11
Likelihood Ratio	7.036	4	0.134
Linear-by-Linear Association	7.383	1	0.007
N of Valid Cases	100		

Source: Primary data

INTERPRETATION:

The Chi-Square test was conducted to examine the relationship between family type and digital payment method. The Pearson Chi-Square value is 7.546 with a p-value of 0.11. Since the p-value is greater than the standard significance level of 0.05, we fail to reject the null hypothesis. This indicates that there is no significant relationship between family type and the choice of digital payment method in this study. However, the Linear-by-Linear Association test shows a p-value of 0.007, suggesting a possible trend that may require further investigation.

H₁: There is a significant relationship between demographic factors and FinTech adoption.

Table – 1.8

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.161a	4	0.385
Likelihood Ratio	3.769	4	0.438
Linear-by-Linear Association	2.097	1	0.148
N of Valid Cases	100		

Source: Primary data

INTERPRETATION:

The Pearson Chi-Square value is 4.161 with a p-value of 0.385. Since the p-value is greater than the standard significance level of 0.05, we fail to reject the null hypothesis (H₀). This indicates that there is no statistically significant relationship between the tested variables. Similarly, the Likelihood Ratio (0.438) and Linear-by-Linear Association (0.148) further support the conclusion that no strong association exists between them.

H₂: There is a potential trend in Fintech adoption based on demographic factors that may require further investigation.

Table – 1.9

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.603a	4	0.626
Likelihood Ratio	2.595	4	0.628
Linear-by-Linear Association	0.088	1	0.767
N of Valid Cases	100		

Source: Primary data

INTERPRETATION:

The Pearson Chi-Square value is 2.603 with a p-value of 0.626. Since the p-value is much greater than the standard significance level of 0.05, we fail to reject the null hypothesis (H₀). This means there is no statistically significant relationship between the variables. Similarly, the Likelihood Ratio (0.628) and Linear-by-Linear Association (0.767) confirm that there is no meaningful association between them in this study.

RESULTS AND DISCUSSION:

Results:

➤ **PERCENTAGE ANALYSIS:**

Younger individuals dominate FinTech adoption, with 59% of users below 20 years old, while adoption decreases with age, with only 7% of users between 41 and 60. Gender disparities persist, as 75% of FinTech users are male, and nuclear families (72%) show higher adoption rates than joint families. However, statistical analysis indicates no significant relationship between family type and digital payment preferences.

➤ **CHI-SQUARE:**

The Pearson Chi-Square test (p-value = 0.11) confirms no significant link between family type and digital payment methods, though a trend is suggested by the Linear-by-Linear Association test (p-value = 0.007). Additional Chi-Square tests reinforce this finding, with p-values consistently above 0.05, confirming no strong association between tested variables. Likelihood Ratios and Linear-by-Linear Associations further support the conclusion that there is no statistically significant relationship influencing FinTech adoption patterns in this study.

Discussion:

To increase FinTech adoption among older demographics, user-friendly interfaces and awareness campaigns should be prioritized. Gender disparities persist, requiring targeted financial literacy programs and incentives for female participation. Joint families show lower digital payment adoption, highlighting the need for educational initiatives.

Cybersecurity concerns must be addressed through stronger protocols, multi-factor authentication, and regular audits to enhance consumer trust. Regulatory frameworks should evolve to integrate FinTech into

traditional banking while fostering innovation. Collaboration between banks and FinTech firms can drive efficiency and service improvements.

Urban centres like Coimbatore require focused financial inclusion strategies, including multilingual support and personalized financial tools. Public-private partnerships can enhance digital literacy and awareness. Ongoing research is essential to track trends, regulatory shifts, and emerging technologies to keep FinTech aligned with consumer needs.

CONCLUSION

FinTech is transforming the banking sector with digital solutions, but adoption varies across demographics. Younger individuals and nuclear families engage more, while older individuals and joint families exhibit lower usage rates. No significant correlation exists between family type and digital payments, though further study may uncover deeper insights.

Gender disparities highlight the need for initiatives promoting female participation. Regulatory oversight must balance consumer protection with innovation. Rather than competing, banks should collaborate with FinTech firms to enhance service delivery.

Security and privacy remain key concerns, requiring robust fraud prevention strategies. FinTech drives financial inclusion, but targeted efforts are needed for broader adoption in Coimbatore. Customer-centric innovations and adaptive policies will be crucial for sustaining FinTech growth in the region and beyond.

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