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ASSESSING THE IMPACT OF FINTECH ON BANKING CUSTOMERS

DINESH S

Research Scholar of Commerce, Bharathidasan School of Management,

Bharathidasan University, Tirchy, Tamilnadu.

ORCID: 0009-0008-6371-4621

Email: spdinesh1995@gmail.com

Dr. R Saminathan

Associate Professor of Commerce, Centre for Distance & Online Education

Bharathidasan University, Tirchy, Tamilnadu.

Email: drrsaminathan@gmail.com

Abstract:

The financial services industry has seen a substantial transformation due to the quick development of digital technology, with FinTech's ascent changing banking experiences. This study examines changes in consumer preferences and behaviour brought about by digital financial solutions, specifically regarding banking clients in Bengaluru. Its objectives are to find the main drivers of FinTech adoption and the degree to which user-friendliness, security, and accessibility affect consumer decisions.

Purposive sampling was used to get data from certain banking community groups using a standardized questionnaire. Cronbach's alpha was used to verify the dataset's reliability, and then exploratory factor analysis (EFA) was used to determine the fundamental factors affecting adoption behaviour. According to the survey, a clear correlation exists between increasing customer acceptance of FinTech solutions and characteristics like ease of access, improved security, and user-friendly interfaces.

Results show that users are more likely to adopt FinTech when they are more aware of its advantages, which include efficiency, security, and ease. This study highlights the necessity of improving digital service security and accessibility to increase user engagement, offering insightful information to financial institutions, legislators, and FinTech developers. The banking industry can strengthen its digital strategy and ensure financial inclusion and better client experiences in a world driven by technology by comprehending these changing consumer expectations.

Keywords: FinTech, Technology adoption, service excellence, and security.

JEL Code: G20, O33, D14, D83, L86

1. Introduction:

Rapid technological advancements transform banking and financial services fundamentally while producing major disruptive shifts across global financial markets. The transformation of financial operations embraces the growing sector known as Fintech financial technology. Fintech encompasses several novel technical capabilities which include artificial intelligence and blockchain technologies in addition to big data capabilities and sophisticated quantitative advisory tools.

These technological advances generate quicker transactions and lower prices alongside better services which revolutionize how financial services operate. Digital platforms deliver efficient service by eliminating historical banking processes thus granting customers access to various financial products and services. Indian financial inclusion programs flourish thanks to governmental support because such advances ensure basic financial services reach all population groups including underserved citizens.

Progressive financial technology enterprises are becoming technological leaders in this evolving landscape of banking as traditional systems prepare for eventual obsolescence. The sector provides multiple solutions to accommodate business as well as customer service needs. Payment banking services enhance financial transaction convenience through mobile payment innovation and simplified peer-to-peer money transfers. Through advanced tools for asset management people from all backgrounds can understand complicated financial principles thereby expanding their asset growth abilities. Among their essential services, the Fintech industry operates crowdfunding platforms for business funding and custom insurance solutions that assess individual risk profiles and payment products for simple financial transactions.

Through Fintech, the financial services industry has changed, improving customer service, cutting expenses, and expediting processes. Government programs like the Jan Dhan Yojana, which connects disconnected communities to the financial system and fosters financial literacy, support the Fintech industry's notable development potential in India. Instant money transfers via mobile devices are made possible by the Unified Payments Interface (UPI), and the India Stack project provides open APIs for smooth digital transactions. This partnership between Fintech companies and governmental organizations is propelling the swift digital revolution in

banking, setting Fintech up to reshape the global financial scene and advance social and economic equality.

2. **Review of Literature:**

The Theory of Reasoned Action (TRA), created by Ajzen and Fishbein in 1980, emphasizes how emotions and peer pressure affect people's adoption of technology. Although TRA has trouble making predictions when people have free will, it contends that both subjective standards and attitudinal agreement influence behavior (Ajzen, 1991). Furthermore, TRA doesn't address how preexisting ideas shape novel ideas.

Davis (1989) developed the Technology Acceptance Model (TAM), which looks at how contextual influences impact attitudes and actions around technology. Yang (2005) asserts that views on the use of information systems have a major impact on behavioural reactions and adoption intentions. Perceived Ease of Use (PEU), which gauges opinions regarding streamlined procedures, and Perceived Usefulness (PU), which concentrates on job execution abilities, are two essential components identified by TAM (Davis, 1989).

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Alt and Puschmann (2012) investigated the fintech industry, highlighting how it combines technology and money in a novel and disruptive way. Their research highlights the opportunities and challenges that fintech offers, such as cybersecurity and regulatory compliance, while also enhancing accessibility to financial services through innovations like robo-advisors, blockchain, and mobile payments.

Furthermore, according to McAuley (2014), fintech companies want to improve efficiency and inclusivity by streamlining conventional financial procedures. In the end, they hope to transform the financial environment to better support a digital economy.

According to Dublin's National Digital Research Centre, financial technology (fintech) is "innovation in financial services" that can cause more than merely system optimization. Peer-to-peer lending platforms, robo-advisors, Bitcoin, and other technology innovations that are revolutionizing financial services are all included in the term "fintech."

Fintech adoption is rising globally, according to Ashwini Sanmath (2018), as traditional financial institutions use blockchain and artificial intelligence to improve service delivery. Both consumers and businesses are benefiting from this convergence, which is increasing access to financial services, lowering transaction costs, and creating a more inclusive ecosystem.

There is an increase in financial innovations and scholarly interest in fintech, according to research by Kavuri et al. (2018). They do, however, emphasize that more thorough research is required to validate fintech as a legitimate academic field.

About 1,500 FinTech firms are now operating in India, with almost half having been founded in the previous two years, according to research by Krishna Priya et al. (2019). This indicates a vibrant ecosystem that is mostly focused on the payments sector. According to the analysts, this expansion will spread to other financial areas, revolutionizing Indian services.

Singh et al. (2019) used a variety of statistical methods and random sampling to identify the main elements promoting customer acceptance of FinTech solutions. According to their findings, venture capital investment was similar across areas, indicating that FinTech is a topic of interest worldwide.

Cross-national research by Merhi et al. (2021) looked at the impact of demographic variables like age and gender on the uptake of mobile banking. Using sophisticated statistical techniques, they examined important factors like privacy, security, and trust, and uncovering intricate connections in customer behavior.

In the FinTech context, Hsu and Lin (2015) pointed out that product viability is crucial for comprehending consumer involvement as it forecasts client usage and referrals. The Financial Services Authority and Bank Indonesia, which support financial inclusion for marginalized communities, are in charge of overseeing the fintech sector in Indonesia. According to the National Digital Research Centre, financial technology is "innovation in financial services," indicating that it has the capacity to upend established structures.

3. **Objectives**:

3.1 To assess the adoption of Fintech.

3.2 To analyse the Awareness and usage level of Fintech.

4. Research Methodology:

4.1 Sample design: Exploratory Factor Analysis [EFA] has been adopted for the study.

4.2 Data sources include: A detailed questionnaire to collect primary data reached completion through 140 respondents scattered across Bengaluru. The research survey was designed to generate data from respondents about population characteristics alongside lifestyle orientations and habitual practices. Secondary data generation occurred through both analysis of relevant publications and internet sources and original data collection efforts. The research achieves full comprehension of the topic through combining both primary and secondary data collections.

5. Need and Scope of Study:

This research evaluates client usage patterns for fintech services across Bengaluru City banking institutions while studying customer interaction levels. Researchers obtained data from Standard Bank of India (SBI) and Union Bank of India's customer base in Bangalore's southern regions to extract relevant findings. The research adopts focused strategies to better explain the relationship between traditional banking services and fintech adoption patterns in this city context.

6. Reliability statistics of data:

The Likert Scale is the tool used in the questionnaire's formulation. The researcher utilizes a multiple-choice kind of questionnaire for the participants and divides this scale into 5 equal portions. Strongly disagree to strongly agree are the options on the scale. I relied on the Cronbach Alfa test to assess the accuracy of the survey. The study's accuracy is.

Reliability Statistics	
Cronbach's Alpha	N of Items
.899	10

Source: Primary Source

A statistical metric called Cronbach's alpha has a range of 0 to 1.00; values nearer 1.00 indicate that the items in a questionnaire have a high degree of internal consistency. With a computed Cronbach's alpha of 0.899, the current study exhibits a high level of dependability. About 89% of the questionnaire's questions are aligned and consistently assess the intended dimensions, according to this score. This good degree of dependability implies that the questionnaire's usability is strong, verifying its results and boosting confidence for more study and analysis in this field.

Table: 1: Demographic profile:

Measures	Items	Frequency	Percentage
GENDER	Male	76	54.3
	Female	64	45.7
AGE	Below 30 years	107	76.4
	31 years to 40 years	24	17.1
	41 years to 50 years	9	6.4
	Above 51 years	0	0
MONTHLY INCOME	Below 10000	71	50.7
	10000 to 30000	36	25.7
	30000 to 50000	20	14.3
	Above 50000	13	9.3
Awareness of Fintech services	Yes	78	55%
	No	41	30%
	May be	21	15%

Source: Primary Source

This research analyzed 140 subjects to explore their backgrounds and financial aspects. The survey data indicates a male-majority population, with men comprising 54.3% and women 45.7%, as shown in Table 1. A significant 76.4% of participants are under thirty, highlighting youthful engagement in relevant topics. Only 17.1% are in the 31 to 40 age range, and just 6.4% are 41 to 50, raising concerns about the absence of those aged 51 and above.

Regarding income, 50.7% of respondents earned between Rs. 10000 and Rs. 30000, with 25.7% in the range of Rs. 30000 to Rs. 50000. Representation decreases with higher income brackets: 14.3% earned over Rs. 50000 and 9.3% exceeded that amount.

Additionally, 55% of Bengaluru residents reported knowledge and use of fintech services, indicating a growing acceptance of digital finance. This research provides insights into the development of financial services in urban areas and aims to uncover the factors driving this trend and its impact on financial inclusion across populations.

7. FACTOR ANALYSIS:

We used the Kaiser-Meyer-Olkin (KMO) measure of sample adequacy to systematically assess the appropriateness of factor analysis. The KMO test uses correlations between variables and their common components to evaluate the quality of the sample. The squared pairwise partial correlations are divided by the squared pairwise variable correlations to get a statistic. Strong

shared variance across variables is indicated by a KMO score around 1, which qualifies them for component analysis; values below 0.5 suggest possible adequacy problems.

Higher KMO values indicate stronger variable grouping; the range of values is 0 to 1. Although various study areas have different criteria, values above 0.50 are considered required for factor analysis. While scores between 0.80 and 0.90 are regarded as commendable, a KMO value above 0.90 suggests ideal circumstances for analysis. Average scores fall between 0.70 and 0.80, while moderate appropriateness is indicated by scores between 0.60 and 0.70. Any KMO number below 0.50 suggests that factor analysis is improper without acquiring further data, while values between 0.50 and 0.60 are considered awful.

8. FACTOR ANALYSIS RESULTS

Table: 2-Total Variance Explained

Com	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	T	% Of V	Cum%	T	% Of V	Cumulative %	T	% Of V	Cumulative %
1	5.473	54.727	54.727	5.473	54.727	54.727	3.811	38.110	38.110
2	1.512	15.118	69.845	1.512	15.118	69.845	2.431	24.312	62.422
3	1.112	11.124	80.969	1.112	11.124	80.969	1.855	18.547	80.969
Extraction Method: Principal Component Analysis.									

Source: Primary Source

Data collected from the 10 statements in the questionnaire, which were carefully designed to assess specific properties of each component or construct, underwent a thorough exploratory factor analysis. This analysis successfully identified three distinct components that met the criteria for retention, specifically an eigenvalue greater than 1. The results of the factor analysis, which employed a varimax rotation to maximize the variance explained by each factor, are presented in Table 2. This table offers a detailed breakdown of the factor loadings and illustrates how each statement aligns with the identified components, providing deeper insights into the underlying structure of the data.

Table: 3- Factor Loadings after Varimax Rotation

Rotated Component Matrix				
	Factors	Component		
		1	2	3

Confidentiality of information is protected in Fintech.	Easy & Confidentiality	.949		
Banking customers Feel easy to use Fintech Services.		.949		
The use of Fintech services could meet my service needs.		.949		
Bank customers have more confidence in Fintech services.		.743		
More Convenient and use of Fintech services	Trust and Convenient		.934	
frequency of adoption of Fintech services			.934	
Fintech services are more Trustworthy for Banking customers.			.934	
Fintech provides adequate Security features to the Banking Customers.	Quality services			.902
Fintech provides more Flexibility for competing the Transactions.				.825
Fintech provides more quality services to the Banking Customers.				.560
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.				

Source: Primary Source

Components 1 2 and 3 are named "Fintech having perceived easy and confidentiality, trust, and convenient and quality services" based on Table 3 eigenvalues of 5.473, 1.512, and 1.112 respectively.".

Gender-wise perception about perceived ease and Confidentiality in Fintech

H0: Easy and Confidentiality in male and Female is Equal

Table: 4: Gender wise perception about the fintech perceived ease and confidentiality

ANOVA					
Easy and confidentiality					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.013	1	.013	.013	.910
Within Groups	138.987	138	1.007		
Total	139.000	139			

Source: primary source

Table 4 presents the results of a one-way ANOVA analysis, which revealed a substantial p-value exceeding the threshold of 0.05. These findings indicate that there are no statistically significant differences between the perceptions of male and female users regarding the secrecy and ease of use of fintech services in Bengaluru. The PLS-ANOVA results further suggest that both gender groups hold similar positive attitudes towards the privacy features offered by fintech services, as well as their convenience. This implies that both men and women have an equal demand for these characteristics, underscoring a shared appreciation for the importance of privacy and usability in the adoption of fintech solutions. Overall, the study reinforces the notion that fintech service providers can benefit from emphasizing these features to cater to a diverse user base.

Age-wise perception about perceived Trust and Convenient in Fintech

H0: Perceived Trust and Convenient are the same in All age groups of Respondents.

Table: 5: Age-wise perception about the perceived Trust and convenience in Fintech.

ANOVA					
Trust and Convenient					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10.149	2	5.075	5.395	.006
Within Groups	128.851	137	.941		
Total	139.000	139			

Source: primary source

Results from the one-way ANOVA test indicated a significant p-value of less than 0.05, as detailed in the fifth table. This statistical analysis suggests that residents of Bengaluru city, when categorized by age groups, demonstrate markedly divergent beliefs and attitudes towards fintech services. Specifically, younger customer segments, primarily those aged 18 to 35, tend to prioritize technology-driven features such as seamless accessibility and user-friendly interfaces, reflecting their familiarity and comfort with digital innovations. In contrast, senior age groups, particularly individuals aged 55 and above, place a higher emphasis on dependability and security when engaging with fintech platforms, showcasing their preference for traditional values and the need for trust in financial transactions.

This analysis highlights the complex landscape of consumer opinions regarding fintech services in this rapidly evolving metropolis. It underscores the importance of tailoring marketing strategies and service offerings to meet the differing expectations and priorities of

these diverse demographic segments, ensuring that both technology and security are adequately addressed in product development and customer engagement approaches.

Income-wise perception about the quality services in Fintech.

H0: All income groups of Respondents have had the same perception concerning quality services in Fintech.

Table: 6: Income-wise perception of the quality services in Fintech

ANOVA					
Quality services					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11.379	3	3.793	4.042	.009
Within Groups	127.621	136	.938		
Total	139.000	139			

Source: primary source

Table number 6 presents the results of a one-way ANOVA test, which reveals a significant p-value of less than 0.05. This indicates that there are meaningful differences in perceptions of Fintech service quality among individuals across various wealth levels in Bengaluru city. The study data highlights notable disparities in how different income brackets perceive critical aspects of Fintech services, including customer service, accessibility, and overall satisfaction.

Participants from higher income levels tended to report more positive experiences with customer service, citing promptness and personalized support as key factors contributing to their satisfaction. In contrast, individuals from lower income brackets expressed concerns about accessibility, noting barriers such as limited availability of services and lack of tailored solutions that meet their specific needs.

These income-related variations underscore the importance of integrating socioeconomic factors into analyses of Fintech customer preferences and experiences. As the Fintech market continues to evolve rapidly, it becomes increasingly crucial to address these disparities to ensure that products and services are inclusive and effectively meet the diverse needs of all income groups. This nuanced understanding can aid Fintech companies in tailoring their offerings and marketing strategies to enhance customer satisfaction and engagement across Bengaluru's varied demographic landscape.

9. Findings:

The Kaiser-Meyer-Olkin (KMO) test and the Analysis of Variance (ANOVA) were two important statistical techniques used in the study. All three factors—Quality Services,

Perceived Trust and Convenience, and Ease and Confidentiality—exceeded the suggested threshold of 0.9, indicating good sample adequacy according to the KMO test. By demonstrating that the examined variables satisfy the necessary requirements for factor analysis, this strengthens the validity of the results.

The results showed significant demographic variations among survey respondents. Male and female Bengaluru residents had favorable opinions on the privacy of their information and the simplicity of accessing Fintech services under Factor 1. Age affects perceptions of digital service trust and facilitation, according to the ANOVA study, which found differing views on Fintech services among various age groups under Factor 2.

Regarding Factor 3, Bengaluru customers had specific positive thoughts regarding the caliber of Fintech services. However, various consumer groups' views of service quality differed, which had an impact on usage patterns and customer satisfaction. For Fintech companies looking to improve their offerings and serve a wide range of clients, it is essential to comprehend these particular client demands.

10.Conclusion:

According to the ANOVA analysis, while perceptions on value and quality vary greatly, attitudes on the privacy and usability of financial services in Bengaluru are constant across community sectors. Most locals are optimistic about fintech acceptance. Thanks to the COVID-19 epidemic, technical advancements, and changes in banking, customers are willing to employ fintech solutions. Bengaluru, also referred to as the "Silicon City" and "Software Hub," helps established businesses and fosters innovation in fintech startups. Fintech adoption and acceptability are favorably impacted by the different demographics, which include age, income, education, and digital proficiency.

11. Recommendations for Future Research:

Bengaluru's fintech sector's comprehension can improve through research regarding people who resist fintech solutions. Research on this subject has the potential to show what obstacles stand in the way of these individuals using fintech solutions. The understanding of fintech product transition barriers together with root causes from traditional banking systems should benefit providers in expanding their market reach.

For both well-established and up-and-coming fintech companies, brand comparison study analysis may provide important insights into consumer recommendations, brand loyalty, and trust. We can compare engagement patterns and trust levels across start-up fintech services and established financial institutions by looking at user preferences. A multifaceted approach is

necessary to evaluate the risks associated with the adoption of fintech, taking regulatory concerns, market saturation, and security concerns into account. Thorough study may improve knowledge of fintech service acceptance models and aid in the creation of successful marketing campaigns for fintech among a range of demographics.

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