

Assessing the Market Readiness for Fintech Innovations in Private Sector Banks

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Abstract - FinTech is giving banks new ways to stay competitive in the digital sphere. Banks may now function more effectively, spend less money, and provide better customer service thanks to fintech technologies. Banks also use fintech solutions, like blockchain and artificial intelligence, to offer their clients more individualized services and safer transactions. Fintech companies are also giving banks access to new technology, including data analytics, which enable them to better understand their consumers and create products and services that better suit their needs.

By offering a different perspective on how various business ecosystems and layers have facilitated the emergence of innovation-focused fintech companies and what the primary value drivers of their success have been, the research detailed in this paper aims to close a gap in the under-researched and still-evolving fin-tech literature. Key value drivers are found by leveraging the author's extensive professional knowledge in the field in addition to identifying recurring patterns in recent research.

Combining qualitative and quantitative methods allows for a more in-depth analysis of both underlying perspectives and trends that are seen. Semi-structured interviews are conducted with representatives of the fintech industry and private banks in Chennai. A purposive sample technique is used to select participants, who include technical experts, regulatory bodies, founders of fintech companies, and senior executives from traditional banks. After 200 questionnaires were sent out, 190 of them were returned with answers. The data were analyzed using a structural equation model, confirmatory factor analysis, percentage analysis, and reliability test.

The conceptual framework and foundation needed to comprehend the swift and prosperous development of recently developed financial technologies are provided in this article. The author hopes that by giving a precise definition of fintech, academics studying the fintech industry from the perspectives of regulatory issues and value-added design would be able to speak with greater consistency.

Keywords: Fintech, Private Banks, Financial Inclusion, Neobanks, Business

I. INTRODUCTION

Fintech solutions provide a range of services, including investment banking, data analytics, wealth management, and payments. Banks can stay ahead of the curve and generate new business chances by embracing innovation in financial technology. naming the eight fintech innovators that are revolutionizing the financial sector.

The banking industry has changed because of fintech solutions, which have given banks access to new benefits like faster payments, greater transparency, lower costs, stronger security, and improved client experiences. Banks need to use these technologies to be competitive in the digital era and satisfy the changing requirements of their customers. Banks need to adopt digital initiatives and invest in fintech solutions to thrive in a changing environment.

And this is only the tip of the iceberg. Together, accounting and innovation have drastically changed banking, venture capital, commerce, and digital money. As a result of this growth, the word "Fintech," which refers to financial technology informally, has gained widespread usage. Fintech stands for financial technology innovation, but it's much more than that. It is also known as the innovative idea that improves consumer money-related methods and develops efficient solutions for budgetary administration that take into account the new, typical mechanical trends. Portable financial applications and banking programming are great instances of advancement in the field of financial inventiveness. New Fintech companies are breaking through barriers to success by exploring a variety of uncharted territory and expanding into previously untapped markets. Fintech, which stands for financial technology, is a relatively new term, despite the fact that the relationship between financial services and information technology is not. India currently has a framework in place that provides an opportunity for young

businesses to expand rapidly into massive corporations. It has been the subject of much discussion over the past few decades. Because of the financial sector's widespread use of information technology and its progress, fintech has gained appeal not only in the scientific and technological communities but also in the financial sector. Technology and the Transformation of Banking and Financial Services looks at how new entrant opportunities and business model developments might completely transform the financial services sector. Fintech is viewed as a revolutionary innovation that has the power to completely transform conventional financial markets (Axios, 2019).

Fintech, or financial technology, is the word used to describe the use of technology by financial firms to improve the services they offer (Belgavi, 2020). This is a brand-new, globally developing technology. Fintech technology have been utilized by established financial organizations as well as startups. Banks are where fintech technology are most frequently utilized. A few industries use fintech technology, including blockchain, wallets, online and mobile banking, money transfers, and one-to-one transactions (Imam & Ilori, 2022).

The research presented in this paper aimed to bridge a knowledge gap in the under-researched and evolving fin-tech literature by providing an alternative framework for understanding how different business layers and ecosystems have supported the emergence of innovation-focused fintech companies and what has been the primary driver of their success (Kul & Upadhyaya, 2015). In addition to recognizing recurrent themes in recent research, the author's vast professional expertise in the field is used to discover key value drivers (Shontell, 2012). This article offers a thorough understanding of the subject and assists academics, economists, and financial specialists in determining which industrial segments require more in-depth research. By offering a different, multi-layered evolutionary approach, this work hopes to spark new thoughts and maybe serve as a roadmap for future academic research on the subject. Instead of offering a thorough examination of the specific industries in which fintech businesses are active, such as lending or payment transfers, or developing a novel approach to comprehending the potential role that fintech might play in the financial system (Blake & Vanham, 2016). The article's focus on worldwide trends and its integration of the notion of financial technologies with social, environmental, and economic factors also known as the triple bottom line allows for an examination of the effects of financial technologies on Hungary's financial industry (Gürlek & Atay, 2021; Mohammad et al., 2024) Although the research frequently speaks of "banks," its findings usually hold true for the financial industry as a whole, which includes insurance companies, mutual funds, pension plans, and other financial service providers (Udayakumar et al., 2023; Podvalny et al., 2021).

In this study, transformational banks are defined as banks that have upgraded their backend systems and largely digitized

their operations but have not yet finished rethinking their business models. Because there aren't any significant international financial institutions that aren't aware of the threat that newly established fintech startups represent to them, these banks make up the majority. Transformational banks possess the capacity to direct their business strategies towards greater sustainability and competitiveness (Cyrill, 2018). They may make a substantial contribution to the advancement of the financial industry by making use of their advanced infrastructure, large customer base, plentiful funding sources, and well-established regulatory compliance. Neo-banks, sometimes referred to as digital banks, are the most advanced and already incredibly successful transformational institutions that have completed the process and made innovation in the digital environment regular practice (Stevovic et al., 2023).

II. STATEMENT OF THE PROBLEM

Because they often employ sophisticated, highly digitalized digital banks, and basic financial systems that can swiftly add additional services fintech businesses are not all that different from one another. Digital banks have advanced non-branch strategies, a substantial digital footprint, and familiarity with digital channel management (Karangara, 2023). Furthermore, a lot of digital banks have strong and successful business strategies, and they all comply with the rules. Neo-banks, also known as digital banks, are quickly taking off as a large number of Fintech companies have made this decision and applied for banking licenses (Van Der Kleij, 2016). Many of the benefits of technology may be available to these digital banks as long as they operate transparently and under legal and regulatory standards. It is important to distinguish between established organizations and recent, disruptive entrants since data indicates that fintech businesses are already influencing the digitalization of the banking industry. It is also clear that, while beyond the purview of this study, banks of all stripes confront distinct possibilities, risks, and options when determining how to interact with fintech firms (Kalinin et al., 2024).

III. THEORETICAL BACKGROUND

In states that the financial sector industry in India has used technological advancements to enhance efficiency in offering a diverse array of products and services to its clientele, with a special focus on information technology. Numerous changes and difficulties were brought about by the 1990s reforms, which resulted in the expansion of the liberalization, privatization, and the banking and financial industries in India. Better technology allowed several foreign and private businesses to enter the Indian market and effectively service their customers through a range of channels, such as ATMs and online banking. The technology infrastructure is now a key component of the financial sector reform process (Zilahy, 2016).

In studied important financial performance metrics in European markets, including Net Interest Margin (NIM), Return on Equity (ROE), and Return on Assets (ROA) banks

that have been influenced by FinTech integration. The results show that different nations and companies have very different levels of FinTech adoption, profitability, and efficiency. This comprehensive analysis highlights how technology, by promoting innovation, customer loyalty, and financial success, will be vital in deciding how the financial sector develops in the future (Udayakumar et al., 2023). Financial technology's (FinTech) effects on the banking sector in the UK and globally Europe is examined in this research. It examines all of the FinTech innovations utilized in banking, including blockchain, AI advisors, electronic payments, smartphone applications, and more. The study thoroughly examined the impacts of FinTech on financial institutions and consumer behavior using a mixed-methods research approach that included qualitative interviews and survey data. The study examines the growth and investment criteria of the partnerships, FinTech initiatives, and new digital customer acquisitions of well-known UK banks. AI, Blockchain, loan transaction value, ROA, ROE, and NIM are index terms (Scratch, 2013).

Elsaid, (2023) sought to offer an overview of the literature on the potential consequences for the global financial services sector of fintech startups. This study examines the literature to determine the potential advantages or difficulties that fintech companies may present to the established banking sector. The review of existing research articles on fintech and digital finance served as the foundation for this work. To locate pertinent research publications, the SSRN, Google Scholar, and Scopus databases were used. significant articles about how fintech development affects the banking and financial services industry were included in the final sample. According to the present report, banks will likely lose some market share to fintech companies, but banks are not projected to completely replace fintech companies. To compete with fintech companies, banks must, however, embrace advances and cutting-edge technologies more quickly. Additionally, it is suggested that banks and fintech startups collaborate and form strategic alliances that would be advantageous to both parties (Vijai, 2019). Conceptual Framework shown in Figure 1.

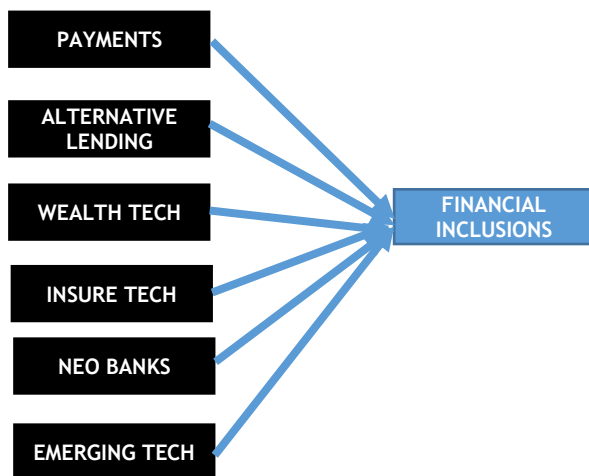


Fig. 1 Conceptual Framework

IV. OBJECTIVES OF THE STUDY

1. To identify the Fintech adoption techniques prevailing in the selected Private Banks, Chennai.
2. To test and validate the relationship between Fintech adoption techniques and financial inclusion.

V. RESEARCH METHODOLOGY

The paper adopts a mixed-methods approach to research to comprehensively analyze the different effects that innovation on the financial services sector (Srinadi et al., 2023). Combining qualitative and quantitative methodologies allows for a more in-depth investigation of both underlying viewpoints and patterns that are noticed. Semi-structured interviews are done with members of the fintech industry and private banks in Chennai. A purposive sample approach is employed to recruit participants, who comprise technical specialists, regulatory bodies, founders of fintech companies, and senior executives from traditional banks. These interviews are intended to provide in-depth information about the challenges, opportunities, and revolutionary impacts of fintech on financial services and customer interactions. An online survey is administered to a large sample of bank customers from different age groups and regions. The survey asks about perceived benefits or downsides of tech products, changes in banking preferences, and usage of fintech services. Survey responses give quantitative data for statistical analysis and trend identification.

VI. HYPOTHESES DEVELOPMENT

Effect of Payments on Financial Inclusions

H1: Payments is positively related to Financial Inclusions.

Effect of Insure Tech on Financial Inclusions

H2: Insure Tech is positively related to Financial Inclusions.

Effect of Alternative Lending on Financial Inclusions

H3: Alternative Lending is positively related to Financial Inclusions.

Effect of Emerging Tech on Financial Inclusions

H4: Emerging Tech is positively related to Financial Inclusions.

Effect of Wealth Tech on Financial Inclusions

H5: Wealth Tech is positively related to Financial Inclusions.

Effect of Neo Banks on Financial Inclusions

H6: Neo Banks is positively related to Financial Inclusions.

VII. DISCUSSIONS

as KMO value is 0.840 which is above 0.50 it quantifies the inter-correlation between the variables.

TABLE I KMO AND BARTLETT'S TEST

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.840
Bartlett's Test of Sphericity	Approx. Chi-Square	17380.447
	df	435
	Sig.	.000

Based on the above Table I, it is evident that the KMO and Bartlett test of Sphericity check the sample adequacy is valid

Measurement Properties, Discriminant Validity and Reliability

TABLE II MEASUREMENT PROPERTIES, DISCRIMINANT VALIDITY AND RELIABILITY

Variables	Mean	S.D	1	2	3	4	5	6	7
Payments	3.95	.920	0.874						
Alternative lending	3.99	.815	0.161***	0.849					
Wealth tech	3.82	.896	0.098*	0.083*	0.761				
Insure tech	3.74	.844	0.678***	0.103*	0.120**	0.866			
Neo banks	3.78	.915	0.030	-0.031	0.191***	0.084*	0.799		
Emerging tech	3.72	.864	-0.072†	-0.201***	-0.070†	-0.050	0.010	0.813	
Financial inclusions	3.80	.924	-0.009	-0.003	0.101*	0.046	0.701***	0.006	0.884

We validated the measurement model using structural equation modeling (Lisrel software). The survey instrument's measuring characteristics are displayed in the Table II. With the exception of seven indicators, all factor loadings were more than 0.7 and fell between 0.7 and 0.9. According to a number at or over the threshold of 0.0 is considered acceptable. Despite the fact that these eight indicators are

over 0.70 but less than 0.90, we kept them since we employed accepted measurements.

Construct Reliability and Validity

TABLE III CONSTRUCT RELIABILITY AND VALIDITY

Variable	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Payments	.451	0.958	.262	0.764
Alternative lending	.422	0.942	.335	0.721
Wealth tech	.419	0.891	.331	0.579
Insure tech	.447	0.934	.273	0.750
Neo banks	.431	0.933	.303	0.639
Emerging tech	.517	0.919	.103	0.661
Financial inclusions	.523	0.919	.099	0.764

From the above Table III, we can see all the 7 variable has valid values respectfully. All the Cronbach's alpha value gives significant results, the composite values are lies between 0.1 to 0.35. the variable skills development has the high average variance which is 0.764 respectfully. The highest Cronbach's alpha is recorded as 0.451 in Payments. Structural Equation Model shown in Figure 2.

Structural Equation Model

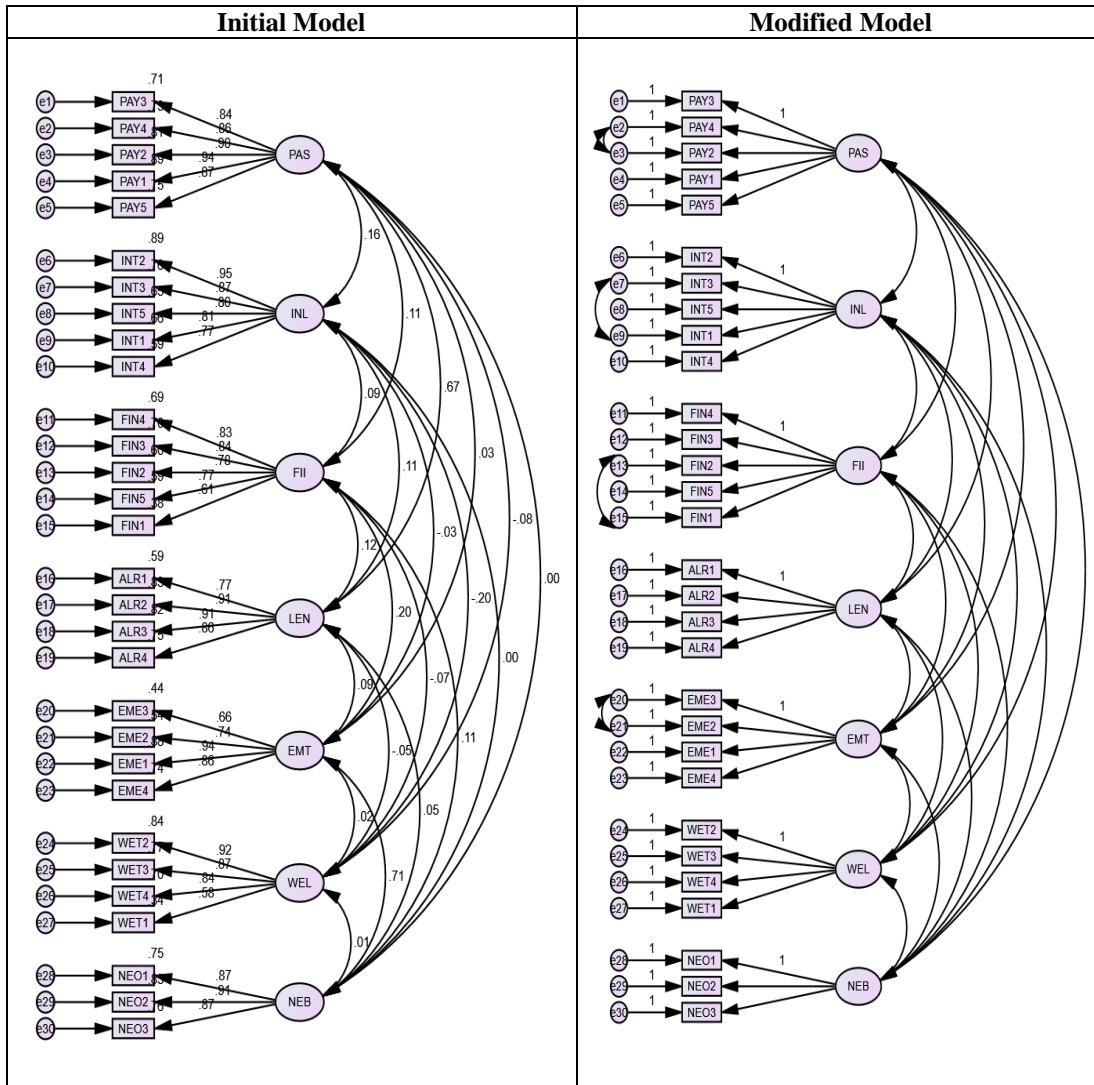


Fig. 2 Structural Equation Model

TABLE IV FIT STATISTIC CHANGE AS A RESULT OF ERROR CORRELATION

Model	χ^2/df	GFI	AGFI	CFI	TLI	NFI	IFI	RMSEA	RMR
Before Error Correction	5.005	0.850	0.818	0.911	0.899	0.891	0.911	0.075	0.046
After Error Correction	4.155	0.876	0.849	0.930	0.920	0.911	0.931	0.066	0.046

Source: Table IV which is derived from the AMOS output, illustrates that the model that is suggested in this study is an over-identified model with positive degrees of freedom. Structural equation model and testing hypotheses shown in Figure 3.

VIII. RESULTS

Structural Equation Model and Testing Hypotheses

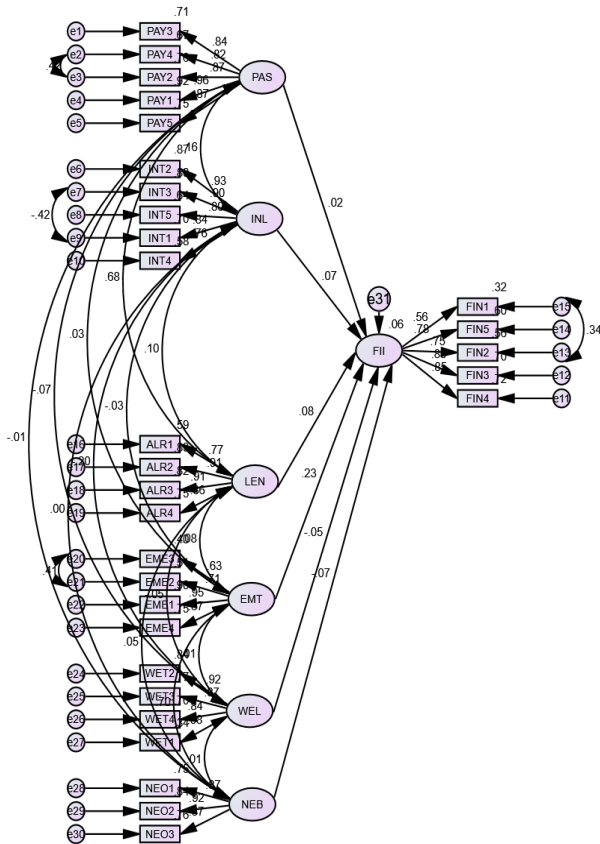


Fig. 3 Structural Equation Model and Testing Hypotheses

Path Coefficients

TABLE V PATH COEFFICIENTS

			Hypothesis	p Values	Results
Financial Inclusions	<---	Payments	H1	0.676	Supported
Financial Inclusions	<---	Insure Tech	H2	0.001	Not Supported
Financial Inclusions	<---	Alternative Lending	H3	0.008	Not Supported
Financial Inclusions	<---	Emerging Tech	H4	***	Not Supported
Financial Inclusions	<---	Wealth Tech	H5	0.203	Supported
Financial Inclusions	<---	Neo Banks	H6	0.284	Supported

We evaluated hypotheses after verifying measurement characteristics, reliability, and discriminant and convergent validity. There was evidence to suggest the impact of payments on financial inclusions ($p = 0.676, p > 0.050$). H1. The association between Financial Inclusions and Insure Tech did not have a supported path coefficient ($p = 0.001, p < 0.005$), according to H2. It was anticipated that there would be no evidence for the association between Financial Inclusions and Alternative Lending, and the path coefficient was ($p = 0.008, p < 0.005$), H3. It was projected that there

would be no support for the association between Financial Inclusions and Emerging Tech, with a path coefficient of ($p = 0.000, p < 0.005$), H4. It was anticipated that Wealth Tech and Financial Inclusions would have a positive association; the path coefficient was ($p = 0.203, p > 0.005$), H5. The path coefficient for the projected association between Financial Inclusions and Neo Banks was ($p = 0.284, p > 0.005$), H6. Path coefficients in shown Table V.

IX. CONCLUSION

The conceptual framework and foundation needed to comprehend the fast and prosperous development of recently developed financial technologies are provided in this article. The author hopes to promote language uniformity among academics that analyze the fintech industry in terms of regulatory considerations and value-added design by offering a precise definition of fintech. The essay also outlines the significance of fintechs in relation to the broader dynamics of the global economy, society, and environment. Financial technologies are already having a triple-bottom line impact on nations, as they enable them to overcome the obstacles posed by conventional brick-and-mortar banks. Additionally, these technologies will contribute to the offering of financial services to millions of people in developing nations.

The underbanked and entirely unbanked are already being impacted by the continuous changes in the financial sector, which are also generating easy-to-use and convenient solutions in previously unbanked areas. Even while a wide range of stakeholders are paying more and more attention to the emerging global trends, the fintech phenomenon is still relatively unknown in Europe, particularly in Hungary. Regrettfully, there is a dearth of primary evidence about the effects of fintech on the economy, society, and environment. To the best of the author's knowledge, no comprehensive global scientific study has been conducted on fintech explicitly, nor has the effect and moral hazard of the defaults of currently well-funded firms been acknowledged. However, it appears that interest in the subject is rising.

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