



## **An Analysis on Customer Perception towards Fintech Adoption in Tamilnadu**

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### **ABSTRACT**

Financial technology (fintech) has transformed the banking industry by introducing digital innovations that enhance accessibility, efficiency, and customer experience. Financial institutions are finding it harder to compete with the proliferation of new technologies in the financial sector, collectively known as "FinTech." Consumers are moving away from traditional payment methods and toward FinTech because of its superior user experience. Since there are always new developments in the financial services sector, FinTech has become an essential component of the industry. Financial technology companies can leverage the findings of this research to better cater to a diverse customer base. The swift expansion of financial technology (FinTech) can substantially improve financial inclusion, especially in the rural regions of emerging nations such as India. FinTech has the potential to drive inclusive growth, reduce inequalities, and foster sustainable economic development. The study explores key factors influencing adoption, including trust, ease of use, security concerns, and perceived benefits. The findings indicate that while fintech adoption is increasing, customers remain cautious about data privacy and cyber threats. Demographic factors such as age, income, and digital literacy also play a significant role in shaping customer attitudes. The study offers insights for banks and fintech firms to improve adoption strategies, enhance customer engagement, and address barriers to digital banking. This study aims to examine customer attitudes toward fintech adoption in the banking sector, focusing on the key drivers and barriers influencing digital banking adoption. By analyzing customer perceptions and behavioral patterns, this research provides valuable insights into how banks can refine their fintech strategies, enhance digital trust, and promote financial inclusion in an increasingly technology-driven financial landscape.

**Keywords:** Fintech Adoption, Customer Attitude, Digital Banking, HDFC Bank, ICICI Bank, South Indian Bank, trust, Security, Digital Transformation.

### **INTRODUCTION**

Financial inclusion ensures that people and companies have responsible and sustainable access to reasonably priced financial products and services, including banking, credit, insurance, and payment systems it seeks to lower inequality by providing financial access to underprivileged and marginalized groups and encouraging economic development. Financial inclusion is a crucial catalyst for economic growth and poverty reduction, particularly in emerging nations such as India, where a substantial population is under banked. Notwithstanding various government attempts and the expansion of digital financial services, financial exclusion remains a significant issue in rural India. Introducing financial technology can revolutionize this situation by facilitating access to financial services via digital platforms, mobile banking, and financial technology (FinTech). FinTech has become a crucial catalyst in reshaping the global financial landscape. In emerging economies, it possesses considerable potential to improve financial inclusion by offering affordable, accessible, and user-friendly financial services. Characterized by its extensive rural populace, India is a principal beneficiary of this technological transformation.



## **FINTECH EVOLUTION IN INDIA**

The rapid evolution of financial technology (fintech) has significantly transformed the banking industry, introducing digital innovations that enhance accessibility, efficiency, and customer experience. Fintech encompasses a broad range of technological advancements, including mobile banking, artificial intelligence (AI)-powered financial services, block chain transactions, and digital payment solutions. These innovations have enabled banks to offer seamless financial services, reducing dependency on traditional banking methods and improving customer convenience. As a result, fintech adoption has seen substantial growth, particularly in emerging economies like India, where digital banking initiatives are gaining momentum. However, despite the advantages of fintech, customer attitudes toward its adoption remain mixed. Factors such as trust in digital transactions ease of use, security concerns, and personal preferences play a crucial role in determining whether customers embrace fintech solutions. Understanding these attitudes is essential for banks and fintech providers to tailor their strategies, address customer apprehensions, and ensure a smooth transition to digital banking.

## **SCOPE OF THE STUDY**

This study focuses on understanding customer attitudes toward fintech adoption in the private banking sector, with a particular emphasis on selected banks. It explores key factors influencing adoption, such as trust, security, ease of use, and perceived benefits, while also analyzing demographic variables like age, income, and digital literacy. The research examines how fintech services, including digital payments, mobile banking, and online lending, impact customer behavior and satisfaction. Additionally, it identifies the challenges and barriers preventing wider adoption of fintech solutions. By providing insights into customer perceptions, this study aims to assist banks in refining their digital strategies, enhancing customer trust, and promoting greater financial inclusion through fintech innovations.

## **STATEMENT OF THE PROBLEM**

Fintech has revolutionized the banking sector by offering digital solutions that improve efficiency, accessibility, and customer convenience. However, despite these advancements, many customers remain hesitant to adopt fintech services due to concerns about trust, security, ease of use, and adaptability. Fears of data breaches, cyber threats, and the complexity of digital financial services continue to act as barriers to widespread adoption. Additionally, demographic factors such as age, income, and digital literacy significantly influence customer perceptions and willingness to engage with fintech solutions. Without a clear understanding of these attitudes, banks may face challenges in addressing customer concerns and optimizing fintech adoption. This study aims to explore customer perceptions, analyze key factors driving fintech adoption, and provide insights to help private sector banks enhance digital service offerings, build trust, and encourage broader acceptance of fintech.

## **SIGNIFICANT OF THE STUDY**

Tamilnadu Banks have undergone numerous reforms over the years comprising nationalisation, liberalisation, globalisation, privatisation and digitalization. With the changing market dynamics and preference of customers, banks have had a challenging phase to meet the expectations of customers and retain them. In the continuous efforts of banks to include the unbankable masses in its ambit, tap the potential segments, mitigating risks and countering various challenges, technology has been playing a catalytic role. In this context, fintech has gained momentum in recent years in expanding the banking services beyond physical barriers. The present study explores the role of fintech in the banking sector and also examines factors behind the adoption of fintech services of its customers.



### **Fintech Adoption by Consumers**

One of the key factors influencing fintech adoption behaviour is information quality. It is important to consider how demographic aspects like gender, age, education, and income affect the decision to use fintech. The people's perceptions about digital payment methods have a big influence on how they decide to pay. There are several situations when digital payments might not be accepted, leaving only cash payments as an alternative. To identify the steps involved in the use of financial technology in the financial services sector, a key component of users' intentions to adopt Fintech is customer trust. Customers feel that an online company with a high reputation might adopt safe encryption technology and assurances whenever there is a disagreement, which decreases the sense of danger while utilising Fintech. Also, the connections between various demographic characteristics, the acceptance of fintech services, and the perception, usage patterns and barriers that bank customers must be considered in order to use fintech services.

### **OBJECTIVES**

- To identify various factors, impact for technological, psychological, and socio-cultural factors affecting the adoption of FinTech in Tamilnadu.
- To examine the customer attitude towards fintech adoption
- To analysis factors influence the intention to accept and utilize FinTech services across various demographic segments within Tamilnadu.
- To evaluate through this study focuses on understanding customer attitudes toward fintech adoption in the private banking sector.

### **HYPOTHESIS**

**H0:** - There is no significant relationship between age, Education qualification, occupation and customer attitude towards fintech adoption.

**H1:** -There is a significant relationship between age, Education qualification, occupation and customer attitude towards fintech adoption.

### **REVIEW OF LITERATURE**

Dixit et al. (2022) aimed to analyze the extent of financial technology acceptance based on the Technology Acceptance Model (TAM). Through the survey, the response of (150) individuals in India were analysed. The study concluded that the perceived benefit and perceived ease of use had a positive impact on the attitudes of individuals towards the use of financial technology

Aggarwal et al. (2023) aimed to investigate the factors that would influence the adoption of FinTech services for Generation Y in India based on the TAM model. By distributing a questionnaire to a sample of (380) respondents from Generation Y, the study reported that the perceived usefulness and perceived ease of use had a positive impact on the intention to adopt financial technology services. In addition, the study found that perceived risk negatively affected adoption intent. In general, as for the study, it was demonstrated that Gen Y consumers viewed financial technology services based on their functionality and ease of use

Al Rubaiai and Pria (2022) aimed to understand customer behavior towards the adoption of technological services in the Sultanate of Oman based on the TAM model. An online survey was conducted with a distribution of a questionnaire on a sample of 300 individuals in terms of consumer behavior towards financial technology services in terms of perceived benefit, ease of use, intention to use and actual use of fintech products. The study concluded that the perceived usefulness and ease of use had a positive impact on consumer behavior towards fintech and increased their intention to use it.



Das (2020) studied on FinTech and suggested that Governments have taken necessary efforts towards digital transformation and promoted FinTech firms, realizing the potential of FinTech to assist towards financial inclusion and stability. Banks and other financial institutions have begun working together with FinTech companies to better serve their consumers. The purpose of this article is to look into how clients of various banks view and use FinTech services, how they perceive them, and what kinds of barriers they run into while trying to use them.

Keer yang (2021) discovered that counties with more severe trust loss had bigger gains in FinTech market share than those with less severe erosion. Generic machine learning inference for estimating treatment effect heterogeneity reveals that borrowers with the greatest reduction in faith in banks and the largest increase in adoption of FinTech share defining characteristics.

### RESEARCH METHODOLOGY

This study adopts a quantitative research approach to examine customer attitudes toward fintech adoption in the private banking sector in Coimbatore, Erode, Salem, Chennai city. Primary data is collected through a structured questionnaire distributed to customers of selected private banks, ensuring a diverse sample that reflects different demographic groups. The study employs statistical tools such as regression analysis, chi-square tests, and correlation analysis to identify key factors influencing fintech adoption, including trust, security, ease of use, and perceived benefits. Secondary data is sourced from journals, articles, books, and credible online resources to provide contextual insights. The research follows a convenience sampling method, ensuring accessibility to relevant respondents while maintaining data reliability. By analyzing the data collected, this study aims to provide valuable insights into customer behavior, helping banks refine their digital strategies and enhance fintech adoption.

**Sample Size-** In order to know the experience of customers of banks as users of Fintech services, a total of 130 customers from HDFC Bank, ICICI Bank, and South Indian Bank, from specifically in Coimbatore, Salem, Erode, Chennai cities in Tamilnadu have been selected for the study.

**Sampling technique-** To determine the sample size, the convenience sampling technique has been adopted for the study.

**Sample Area:** This study covers only Coimbatore, Erode, Salem and Chennai in Tamilnadu.

**Source of data-** The primary data have been collected through structured questionnaires distributed among the customers of HDFC Bank, ICICI Bank, and South Indian Bank. The secondary data sources include research papers, articles from newspapers and journals and official websites.

**Technique of data analysis-** Data is analysed using chi-square test and percentage method. To calculate pvalue in the chi square test, Chi Square calculator has been used.

**Social Implications-** The study focuses on examining the awareness and experience of the citizens of tamilnadu towards adoption of Fintech services by banks. The outcome of the study shall help to know the pace of Fintech adoption by the customers of banks and fill the gap between the services offered by banks and those received by customers.

### Data Analysis

**Profile of Respondents** A total of 130 respondents have been interviewed for the study through a structured questionnaire and data have been collected from customers of HDFC Bank, ICICI Bank, and South Indian Bank.

**LIMITATION OF THE STUDY**

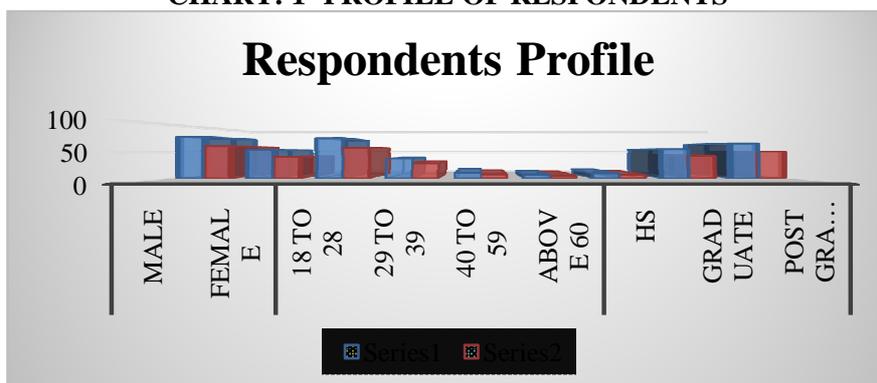
- It is limited to selected private sector banks, making the findings less generalizable.
- Self-reported survey data may include biases, affecting the accuracy of responses.
- The study's sample size may not be large enough to generalize the findings to the entire banking population or diverse customer segments.
- This study only focuses on four cities, Coimbatore, Erode, Salem, Chennai in Tamilnadu not cover any other cities in Tamilnadu.

**TABLE: 1 PROFILE OF RESPONDENTS**

GENDER	MALE	77	59.7
	FEMALE	53	40.3
AGE GROUP	18 TO 28	75	57.4
	29 TO 39	37	28.7
	40 TO 59	11	8.5
	ABOVE 60	7	5.4
QUALIFICATION	HS	10	7.6
	GRADUATE	55	42.3
	POST GRADUATE	65	50

Age and Adoption of Fintech Services H0: There is no association between age and adoption of fintech services. H1: There is an association between age and adoption of fintech services. While examining the association between age and adoption of Fintech services, it is found that the age group of 18 to 28 years are the highest users followed by 29 to 39 years. However, the other age groups are of the opinion that they prefer to use the services with precautions, rather than using without knowing the consequences of cyber fraud. Therefore, the higher age groups have shown reluctance towards abrupt usage of fintech services. While trying to test the hypothesis, to determine the association between age and fintech service usage,  $p= 0.6$  which is greater than 0.05 which shows age and adoption of fintech services are independent of each other, i. e. there is no association between them. Hence, null hypothesis is accepted at the 5% level of significance.

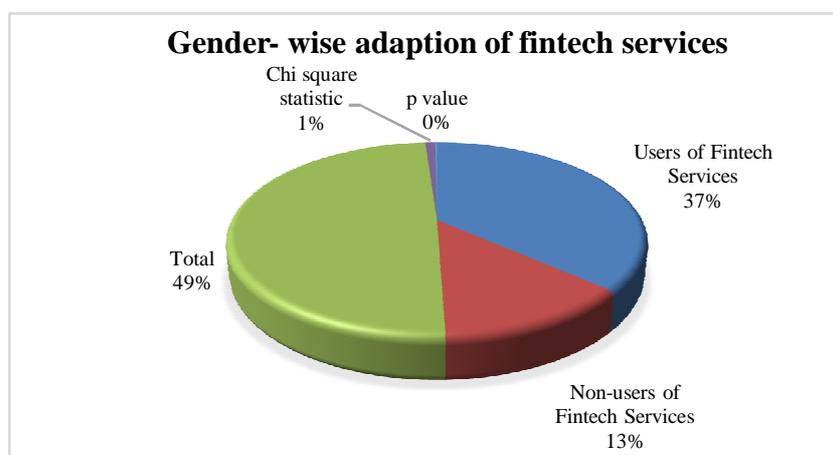
**CHART: 1- PROFILE OF RESPONDENTS**



**TABLE 2: GENDER- WISE ADOPTION OF FINTECH SERVICES**

Gender	Users of Fintech Services	Non-users of Fintech Services	Total	Chi square statistic	p value
Male	57	20	77	1.46	0.2261
Female	43	10	53		
Total	100	30	130		

Gender and Adoption of Fintech Services H0: There is no association between gender of respondents and adoption of fintech services. H1: There is an association between gender of respondents and adoption of fintech services. While examining the association between gender and adoption of Fintech services, it is found that out of 57 male respondents, 20 of them are non-users of fintech services. However, out of 43 female respondents only 10 of them are non-users. This shows gender does not play any significance in adoption of fintech services. This is also evident from the chi square test, where p value is 0.22 which is greater than 0.05 which shows that gender and adoption of fintech services are independent of each other, i. e. there is no association between them. Hence, null hypothesis is accepted at the 5% level of significance.

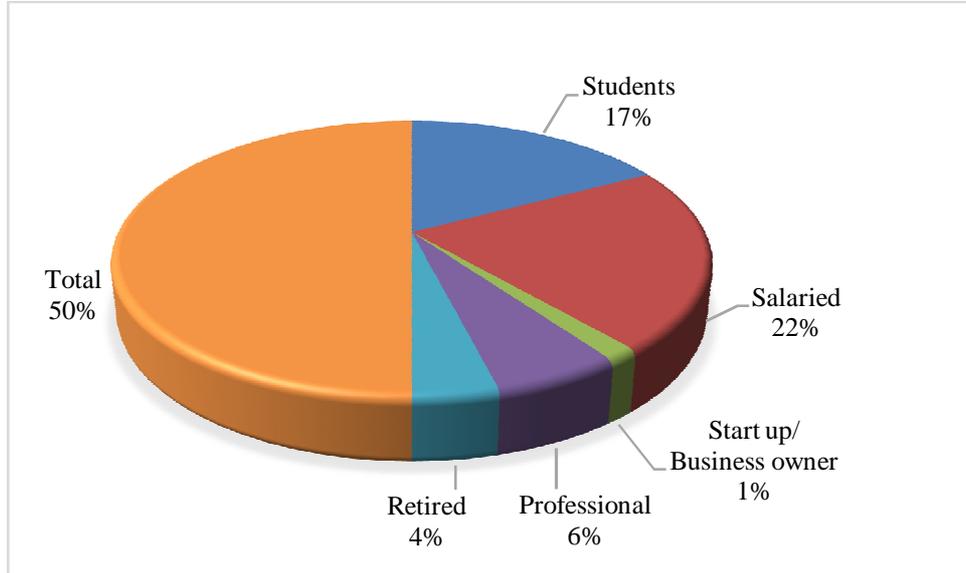


**TABLE 3: OCCUPATION -WISE ADOPTION OF FINTECH SERVICES**

	Users of Fintech Services	Non-users of Fintech Services	Total	Chi square statistic	p value
Students	35	14	49	3.243	0.518
Salaried	44	10	54		
Startup/ Business owner	03	01	04		
Professional	12	01	13		
Retired	08	02	10		
Total	102	28	130		

H0: There is no association between occupation and adoption of fintech services. H1: There is an association between occupation and adoption of fintech services. While testing the hypothesis to see if there is any association between occupation of respondents and fintech service usage, p value is 0.51 i.e. greater than 0.05 which shows occupation and adoption of fintech services are independent of each other, i.e. there is no association between them. Hence, null hypothesis is accepted at the 5% level of significance.

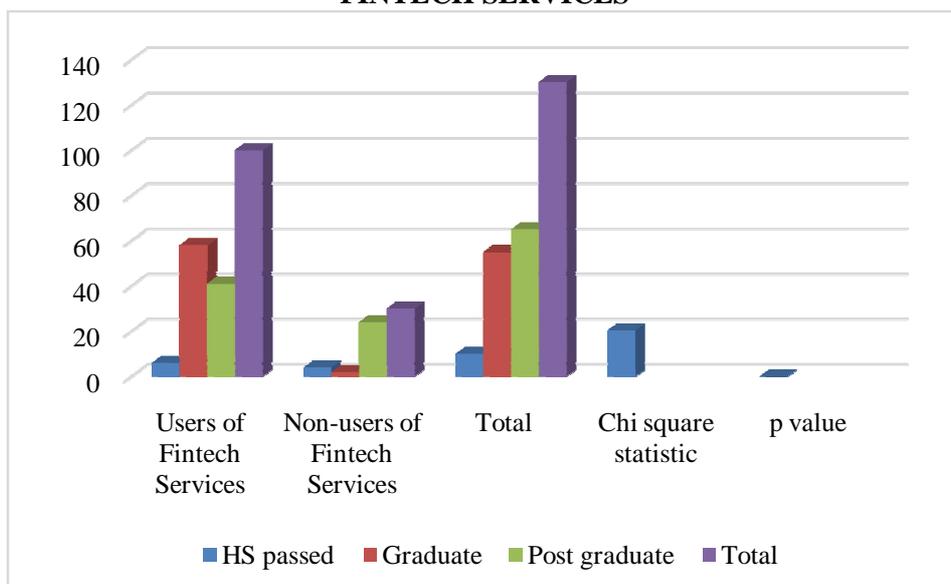
**CHART 3: OCCUPATION AND ADOPTION OF FINTECH SERVICES**



**TABLE 4: EDUCATION QUALIFICATION WISE- ADOPTION OF FINTECH SERVICES**

Education	Users of Fintech Services	Non-users of Fintech Services	Total	Chi square statistic	p value
HS passed	06	04	10	20.343	0.000038
Graduate	58	02	55		
Post graduate	41	24	65		
Total	100	30	130		

**CHART: EDUCATION QUALIFICATION WISE- ADOPTION OF FINTECH SERVICES**

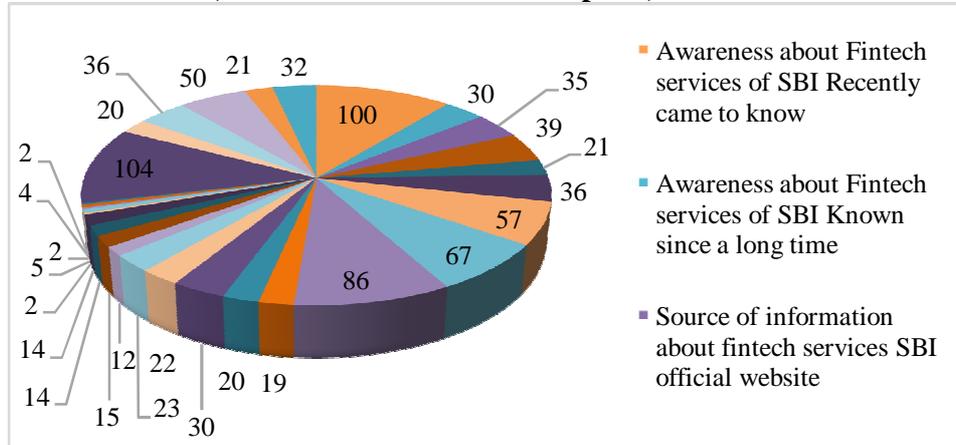


**Table 5: Awareness, Factors behind Fintech Adoption, Preferences and Challenges**

Awareness about Fintech services of SBI	Recently came to know	100	76.3
	Known since a long time	30	23.7
Source of information about fintech services	SBI official website	35	26.7
	Ads and Promotions	39	29.8
	Peers	21	16
	Others	36	26.5
Factors beh	Automation of services	57	48
	Hassle free and prompt services	67	56.3
	Saves time without visiting branches	86	72.3
	Chatbot and AI assisted information	19	16
	Others	20	17.4
Factors behind non-adoption of fintech services	Technological risk (technical failure)	30	40.6
	Data Privacy Risk	22	34.4
	Cyber Risk	23	35.9
	Operational Risk	12	18.8
	Lack of knowledge	15	23.4
	Others	14	21.9
SBI Digital Products used	State Bank Buddy	14	10.7
	State Bank Scribe	02	1.5
	SBI Digi Voucher	05	3.8
	SBI Video Statement	02	1.5
	SBI Smart Watch	04	3.1
	SBI Mingle	02	1.5
	None	104	79.4
Challenges associated with fintech services	Operating cost (storage & infrastructure issues)	20	15.3
	Lack of skill to use	36	27.2
	Risk of hacking/ security issues	50	38.2
	Resistance to shift to online banking	21	16
	Low personal contact	32	24.4

The above study Out of 76% of the respondents have come to know about the fintech services in the recent past and their source about fintech services is mainly from ads and promotions by HDFC and ICICI bank. In order to determine the factors that influenced the respondents to use/ adopt fintech services, it is revealed that time management, prompt services and automation of services are the major reasons while technical failure is the major reason for not using fintech services. Cyber and data privacy risk associated with fintech services followed by lack of operational knowledge are the other reasons cited by respondents for non-adoption of fintech services. 80% of the respondents have used ATMs as channels of fintech services followed by mobile banking apps (69%) and internet banking (56%). Majority of respondents have availed fintech services in the form of money/ fund transfer/ payment services.

**Chart 5: Awareness, Factors behind Fintech Adoption, Preferences and Challenges**



**FINDINGS OF THE STUDY**

- The respondents who are post graduates i.e., 50% are seen to use fintech services followed by 42% graduates. Education here is significant as lack of technical knowledge and redressal measures have led to limited use of services for the HS passed respondents
- It is to note that the majority i.e. 76% of the respondents have come to know about the fintech services in the recent past and their source about fintech services is mainly from ads and promotions by HDFC and ICICI Bank in Tamilnadu.
- On the other hand, technical failure, cyber and data privacy risk associated with fintech services followed by lack of operational knowledge are the other reasons cited by respondents for non-adoption of fintech services.
- Majority i.e. 76% of respondents have availed fintech services in the form of money/ fund transfer/ payment services.
- Finally, it can be observed that respondents prefer fintech services of by HDFC and ICICI Bank in Tamilnadu. its ability to offer branchless services thereby saving ample time. Also, the respondents are of the opinion that the services offered are convenient to use and have greater accessibility. The respondents are however concerned with the risk associated with fintech services which have turned few of them hesitant to use these services

**CONCLUSION**

The adoption of fintech in the banking sector has significantly transformed financial services, offering customers enhanced convenience, efficiency, and accessibility. This study aimed to examine customer attitudes toward fintech adoption, focusing on key factors such as trust, security, ease of use, and perceived benefits in private sector banks. Finally, this study highlights the growing importance of fintech in modern banking, where digital transformation is reshaping customer experiences. While fintech services provide numerous benefits, concerns regarding cyber security, data privacy, and usability remain barriers to widespread adoption. The rejection of the alternative hypothesis indicates that customers' fintech adoption behavior may be influenced by more complex psychological and behavioral factors rather than just demographic aspects. These insights are crucial for banks and fintech providers in refining their digital strategies, addressing customer concerns, and improving the adoption rate of fintech services. Future research should explore additional variables such as customer trust, risk perception, and the role of financial education in shaping fintech adoption. By enhancing digital banking solutions and fostering trust among users, banks can create a more inclusive and customer-friendly fintech ecosystem, ultimately driving higher adoption rates and customer satisfaction.



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