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FINANCIAL TECHNOLOGY (FINTECH): TRANSFORMING THE MODERN FINANCIAL SYSTEM

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Abstract
Financial Technology (FinTech) has developed as a transformative force in the modern financial system by combining digital innovation with financial services. It enhances efficiency, accessibility, and convenience through digital payments, mobile banking, online lending, and electronic fund transfers. In India, platforms such as UPI have significantly accelerated the shift toward a cashless economy by aiding immediate and secure transactions. FinTech has upgraded financial participation across different age groups and occupations, providing to economic growth and financial inclusion.

This paper examines the awareness, usage patterns, trust level, and perceived impact of FinTech services among respondents. Data is collected through a structured questionnaire. The analysis done with both ***descriptive statistics*** *and* ***inferential statistics****. Descriptive tools such as percentages, frequency distributions, mean, and graphical representations are used to summarize demographic characteristics and usage patterns. Inferential statistical techniques, such as the Chi-square test and correlation analysis, are applied to examine relationships between variables like age, occupation, frequency of usage, and trust in digital security.*

The outcome of the paper to identify significant associations between demographic factors and FinTech adoption. The paper also examines whether FinTech usage reduces cash dependence and increases trust in digital financial systems. Overall, the research provides awareness into the growing influence of FinTech and its role in shaping a technologically driven and financially inclusive economy.

Key words: Financial Technology (Fin Tech), Digital Payments, UPI.

Introduction

Financial Technology (FinTech) has changed the conventional financial system by initiate sophisticated digital solutions for financial services. With the fast growth of internet usage and smart phone diffusion, digital payment platforms such as UPI, mobile wallets, and internet banking have become increasingly popular. These technologies enable users to perform financial transactions suitably, securely, and efficiently without relying heavily on physical cash.

The adoption of FinTech services has significantly increased in recent years, especially after the promotion of cashless transactions by governments and financial institutions. FinTech services provide benefits such as convenience, speed, accessibility, and improved transparency in financial transactions. However, users' perception of these technologies may differ depending on demographic factors such as age, occupation, frequency of use, digital payment platform used, and transaction amount.

Therefore, understanding the experience of users towards FinTech services is essential for policymakers, financial institutions, and technology providers. This paper aims to explains the

experience of respondents regarding FinTech services in terms of convenience, trust in digital payment security, and reduction in cash dependence.

Objectives

1. To explore the distribution of respondents based on demographic characteristics and FinTech usage variables.
2. To analyse the stimulus of demographic factors such as age, occupation, digital payment platform, frequency of usage, and transaction amount on FinTech perception.
3. To evaluate the experience of respondents toward FinTech services in terms of convenience, trust in digital payment security and reduction in cash dependence.

Scope of the Study

The present paper analyses on focusing the perception of respondents towards FinTech services and digital payment systems. It assesses how demographic factors such as age, occupation, digital payment platform used, frequency of usage, and monthly transaction amount influence FinTech perception.
The paper primarily assesses three major aspects of FinTech perception: convenience of services, trust in digital payment security, and reduction in cash dependence. Primary data collected from respondents through structured questionary who use digital payment platforms. The outcome of the study will help cognize the factors influencing FinTech adoption and provide insights for improving digital financial services.

Review of Literature

1. **Mansurali Anifa, Swamynathan Ramakrishnan, Shanmugan Joghee, Sajal Kabiraj, and Malini Mittal Bishnoi (2022)**analyzed FinTech innovations in the financial service industry. The paper emphasized that the rapid growth of digital technologies and the fourth industrial revolution have changed traditional financial services. The authors analyzed FinTech applications in areas such as digital payments, financing, asset management, and insurance. The findings list out that FinTech innovations increase efficiency, accessibility, and financial inclusion in the financial sector. The paper also discuss the importance of proper regulatory frameworks to encourages sustainable growth of FinTech, that such frameworks can help mitigate risks, protect consumers, and so fast innovations in the industry.
2. **Robin Jarvis,Hongdan Han (2021)**this paper concentrates on theoretical and literature on Fintech innovations in the financial sector. The intention of this review is how Fintech innovations are changing and converting the universe of financial service providers and challenging traditional business models and infrastruction. Theoretical reviewpaper explores future research areas to further enrich knowledge to create a future-proof. More efficient and resilient financial ecosystem to enhance financial stability in the digital era.
3. **Jairo Toro Diaz, Melissa Duque Velez, Maria Camila Ortiz Chamosa**, this paper stated on every person engaging their financial activities through online only,regarding all the companies trying to use of this situation and offer crowd funding, crowd equity, crowd lending, Insurtech, crypto currencies, their different applications, and case studies in countries where technological finances have been most successful are addressed. Documentary analysis is used as a research method.
4. **Marto Barroso, Juan Labordo,**This paper presents an analysis on the emergence of new technologies in the financial industry and their application to financial and investment

activities, where organisations are highly equipped with the technology needed to over shadow traditional financial institutions .

5. **Momo Hasan,** This research paper study on the impact of financial technology on the financial and banking sector, with a particular emphasis on its application within the Islamic finance industry. In this paper concentrates on importance, advantages and disadvantages of financial services sector.
6. **Dr. C. Vijai,** Fintech in India **–** Opportunities and Technologies explains that Fintech provides alternative solutions for banking services and non-banking finance services. this paper highlight to accesses the opportunity and challenges in the fintech industry. And also explores the evolution of the fintech industry and present financial technology in the Indian Finance sector.
7. **Shoeb Miyajiwala, in his analysis** he explain how customers aware and usage of fintech for their daily routine products and different services. In that purpose he collected data thorugh a structured questioners.
8. Haitian Lu, Bingzhong Wang, Qing Wu, and Jing Ye1, The rise of fintech in the past decade has received growing scholarly attention. This paper surveys fintech-related articles published in the leading finance, accounting, and management journals from 2010 to 2019. It aims to generate a taxonomy of fintech and accumulate knowledge in the fields of text analytics, algorithmic trading, fintech lending, crowdfunding,blockchain, crypto currencies, and the use of artificial intelligence in financial services.

Research Methodology: Research methodology refers to the systematic approach used to conduct the research and analyze the data.

Research Design: The study adopts a descriptive research design to understand the perception of respondents toward FinTech services.

Source of Data: The study is based on primary data collected through a structured questionnaire distributed among respondents using digital payment platforms.

Sample Size: 69 respondents were responded.

Sampling Technique: Using of convenience sampling technique for selection of respondents..

Tools for Data Analysis: The collected data were analyzed using **SPSS and for image using AMOS software**. The following statistical tools were used:

1. **Percentage Analysis** – to analyze the distribution of respondents.
2. **One-way ANOVA** – to examine the influence of demographic variables on FinTech perception.

Variables Used

Independent Variables

1. Age.
2. Occupation.
3. Platform used.
4. Frequency of digital payment usage.
5. Monthly transaction amount.

Dependent Variables

1. FinTech services are convenient.
2. Trust in digital payment security.
3. FinTech reduces cash dependence.

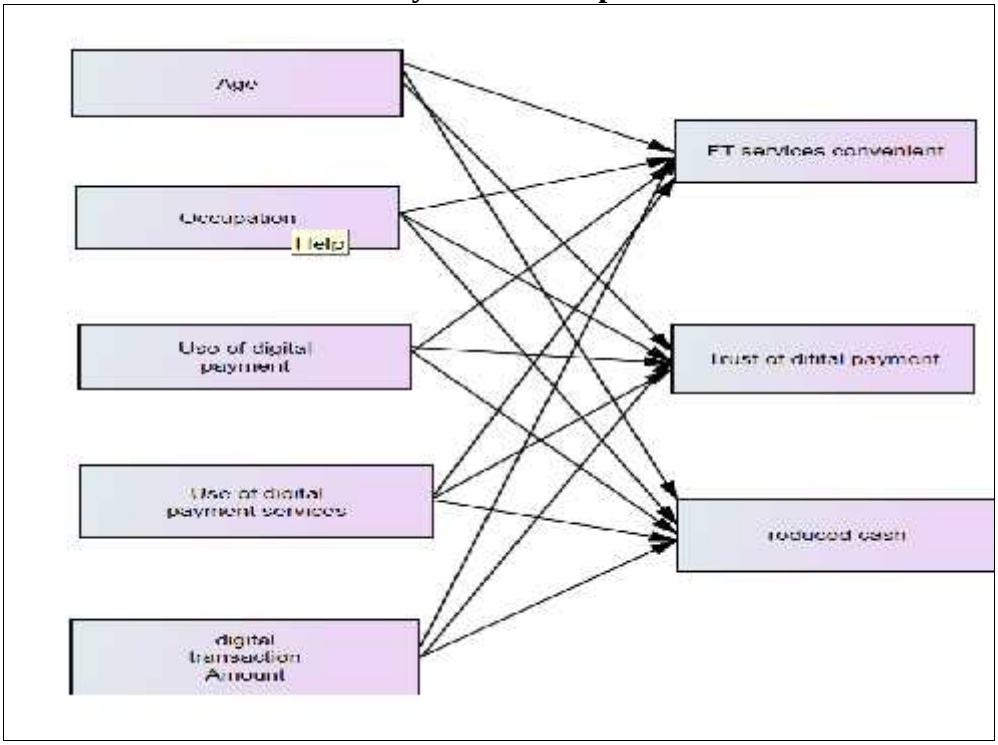
Limitations of the Study

1. The study is limited to a specific group of respondents, which may not represent the entire population.
2. The research is based on primary data collected through a questionnaire, and responses depend on the honesty and understanding of respondents.
3. The study focuses only on selected FinTech perception factors, such as convenience, trust, and reduction in cash usage.
4. Time constraints and limited resources restricted the sample size and geographical coverage of the study.

Research Methodology Process

S. No.	Objective of the Study	Hypothesis	Statistical Tool
1	To analyze the distribution of respondents based on demographic characteristics and FinTech usage variables.	H0: There is no dominant category among respondents regarding demographic and FinTech usage variables. H1: There is a dominant category among respondents regarding demographic and FinTech usage variables.	Percentage Analysis / Frequency Analysis
2	To examine the influence of demographic factors (Age, Occupation, Digital payment platform used, Frequency of usage, Monthly transaction amount) on FinTech perception.	H0: Demographic factors do not significantly influence FinTech perception. H1: Demographic factors significantly influence FinTech perception.	One Way ANOVA
3	To assess the perception of respondents towards FinTech services in terms of convenience, trust in digital payment security and reduction in cash dependence.	H0: There is no significant difference in FinTech perception among respondents based on selected demographic variables. H1: There is a significant difference in FinTech perception among respondents based on selected demographic variables.	One Way ANOVA

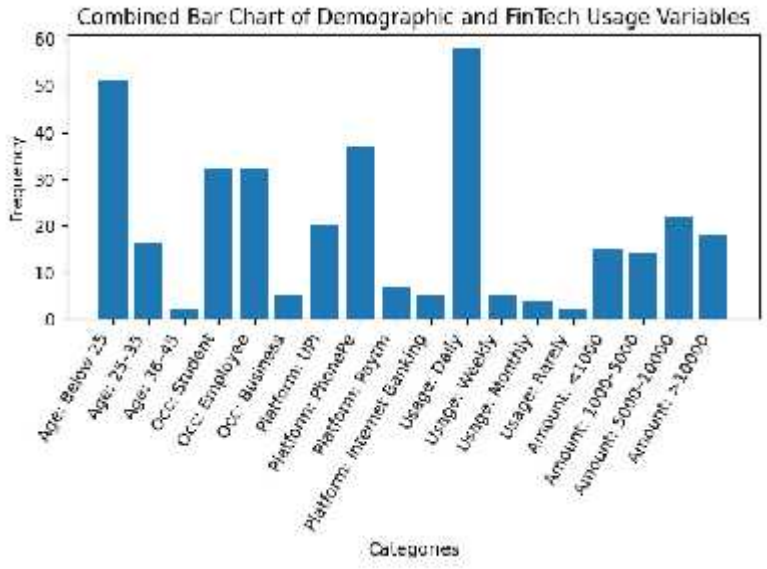
Data Analysis and Interpretation



H0: There Is No Dominant Category Among Respondents Regarding Demographic And Fintech Usage Variables.

Table 1 Descriptive Analyiss		
Demographic and Fintech Usage profile of Respondents		
Category	**Frequency**	**Percentage**
Age		
Below 25	51	73.9
25–35	16	23.2
36–45	2	2.9
Occupation		
Student	32	46.4
Employee	32	46.4
Business	5	7.2
Digital Payment Platform Used		
UPI	20	29
PhonePe	37	53.6
Paytm	7	10.1
Internet Banking	5	7.2
Usage of Digital Payment Services		
Daily	58	84.1

Weekly	5	7.2
Monthly	4	5.8
Rarely	2	2.9
Monthly Digital Transaction Amount		
Below 1000	15	21.7
1000– 5000	14	20.3
5000– 10000	22	31.9
Above 10000	18	26.1



Interpretaion

The table presents the demographic and FinTech usage characteristics of respondents. A majority of respondents (73.9%) belong to the below 25 age group, followed by 25–35 years(23.2%) and 36–45 years (2.9%). Regarding occupation, students and employees constitute the largest share of respondents, each accounting for 46.4%, while business respondents represent 7.2%.

In terms of digital payment platforms, PhonePe is the most widely used platform (53.6%), followed by UPI (29%), Paytm (10.1%), and Internet banking (7.2%). The results also show that most respondents (84.1%) use digital payment services daily. With respect to transaction value, the majority of respondents (31.9%) conduct monthly digital transactions between 5000 and 10000, followed by 26.1% who transact above 10000.

2. H0: There Is No Significant Difference In Fintech Perception Among Different Age Groups.

Table 2					
Differences in Fintech perception across Age					
Factors	Occupation			F - value	P-value
	Below25	25-35	36-45		

FT services convenient	1.96 (.720)	1.81 (..750)	1.00 (.000)	1.854	.165
Trust of digital Payment	2.12 (.711)	1.81 (.834)	1.00 [a] (.000)	3.005	.056
Reduced cash	2.10 (0.922)	1.75 (0.775)	1.000 [a] (.000)	2.227	.116

Interpretation

Table 2 presents the ANOVA results examining the differences in FinTech perception across different age groups. The p-values for all three factors—FinTech services convenience (0.165), trust in digital payment (0.056), and reduced cash usage (0.116)—are greater than the significance level of 0.05. This indicates that there is **no statistically significant difference** in FinTech perception among the age groups (Below 25, 25–35, and 36–45). Therefore, the **null hypothesis is accepted**, implying that age does not significantly influence respondents' perception toward FinTech services.

3. H0: There Is No Significant Difference In Fintech Perception Among Different Across Occupation.

Table 3

Differences In Fintech Perception Across Different Occupation

Factors	Occupation			F - value	P-value
	Student	Employee	Business		
FT services convenient	1.81 [a] (.644)	1.94 [a] (.801)	2.20 [a] (.837)	0.687	.507
Trust of digital Payment	2.09 [a] (.777)	1.94 [a] (.759)	2.00 [a] (.707)	0.335	.717
Reduced cash	2.16 [a] (1.019)	1.81 [a] (0.738)	2.000 [a] (1.000)	1.176	.315

Interpretation

The table presents the ANOVA results examining the difference in FinTech perception across different occupations. The p-values for all three factors—FinTech services convenience (0.507), trust in digital payment (0.717), and reduced cash usage (0.315)—are greater than the significance level of 0.05. This indicates that there is no statistically significant difference in FinTech perception among students, employees, and business respondents. Therefore, the null hypothesis is accepted, suggesting that occupation does not significantly influence respondents' perception toward FinTech services.

4. H0: There Is No Significant Difference In Fintech Perception Users of Different Digital Payment Platforms.

Table 4

Differences in Fintech perception users of different digital payment platforms

Factors	Occupation				F - value	P-value
	UPI	Phone pe	Paytm	Internet banking		
FT services convenient	1.80 (.834)	1.84 (.688)	2.14 (.690)	2.40 (.548)	1.268	.293
Trust of digital Payment	2.00 (.725)	1.89 (.774)	2.43 (.787)	2.40 (.548)	1.487	.226

Reduced cash	1.90 (1.071)	1.95 (0.743)	2.000 (0.577)	2.60 (1.517)	.858	.468

Interpretation

Table 4 presents the ANOVA results examining the differences in FinTech perception among users of different digital payment platforms. The p-values for all three factors—FinTech services convenience (0.293), trust in digital payment (0.226), and reduced cash usage (0.468)—are greater than the significance level of 0.05. This indicates that there is no statistically significant difference in FinTech perception among users of UPI, PhonePe, Paytm, and Internet banking. Therefore, the null hypothesis is accepted, suggesting that the type of digital payment platform does not significantly influence respondents' perception of FinTech services.

5. Effect of Frequency of Usage

Table 5

Differences In Fintech Perception Effect of Frequency of Usage

Factors	Occupation				F - value	P-value
	Daily	Weekly	Monthly	Rarely		
FT services convenient	1.88 (.751)	1.60 (.548)	2.25 (.500)	2.50 (.707)	1.055	.374
Trust of digital Payment	1.91 (.708)	2.20 (.837)	3.00 (.816)	2.50 (.707)	3.273	.027
Reduced cash	1.90 (.831)	2.00 (0.707)	2.50 (1.000)	3.50 (2.121)	2.707	.052

Interpretation

Table 5 presents the ANOVA results examining the differences in FinTech perception based on the frequency of digital payment usage. The p-values for FinTech services convenience (0.374) and reduced cash usage (0.052) are greater than 0.05, indicating no significant difference across usage frequency. However, the p-value for trust in digital payment (0.027) is less than 0.05, indicating a significant difference among users with different usage frequencies. Hence, the null hypothesis is partially rejected, suggesting that the frequency of usage significantly influences trust in digital payment systems, while it does not significantly affect perceptions of convenience and reduced cash usage.

Findings of the Study

1. The percentage analysis shows that most respondents are aware of FinTech services and actively use digital payment platforms for their financial transactions.
2. The study reveals that UPI and mobile payment applications are widely used platforms among respondents for making digital payments.
3. A majority of respondents perceive that FinTech services are convenient and help in performing financial transactions quickly and efficiently.
4. Respondents generally show a positive level of trust in digital payment systems, indicating confidence in the security and reliability of FinTech services.
5. The findings also indicate that FinTech services contribute to reducing dependence on cash transactions among users.

6. The ANOVA results show that age does not significantly influence FinTech perception, as the p-values are greater than the significance level of 0.05.
7. Similarly, occupation does not show a significant difference in FinTech perception, indicating that people from different occupational backgrounds have similar views about digital payments.
8. The analysis also reveals that the type of digital payment platform used does not significantly influence FinTech perception.
9. However, frequency of digital payment usage significantly influences trust in digital payment security, indicating that frequent users tend to have higher trust in digital payment systems.
10. The study indicates that monthly transaction amount does not significantly influence FinTech perception.

Suggestions

1. Financial institutions and FinTech companies should enhance security features in digital payment platforms to further strengthen users' trust in online transactions.
2. Awareness programs and digital literacy campaigns should be conducted to educate users about the benefits and safe usage of FinTech services.
3. FinTech service providers should focus on improving user-friendly interfaces and accessibility to encourage more people to adopt digital payment systems.
4. Government and financial institutions should promote cashless transactions through incentives and policy support to increase digital payment adoption.
5. Continuous improvement in cybersecurity measures and fraud prevention mechanisms is essential to ensure safe and reliable digital payment services.
6. FinTech companies should encourage regular usage of digital payments, as frequent users tend to develop greater trust in digital financial systems.

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