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A STUDY ON USER PERCEPTION OF DATA PRIVACY AND SECURITY IN FINTECH APPLICATIONS

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ABSTRACT

This study examines user perceptions regarding data privacy and security in fintech applications. With the increasing use of digital payment platforms, online banking, and investment apps, concerns about personal and financial data protection have become significant. The research was conducted using a structured questionnaire among 100 fintech users. The findings reveal that while users generally trust fintech platforms, they remain concerned about data breaches, unauthorized data sharing, and privacy risks. The study suggests that fintech companies should enhance transparency, simplify privacy policies, and strengthen security measures to improve user confidence and trust.

Key Words: Fintech, Banking Services and Digital Financial Activities

INTRODUCTION

Financial Technology (Fintech) has transformed the way individuals manage financial transactions, investments, and banking services. Fintech applications offer convenience, speed, and accessibility, enabling users to perform financial activities digitally. However, the increasing dependence on these applications has raised concerns regarding data privacy and security. Users share sensitive personal and financial information on fintech platforms, making security and trust critical factors. This study focuses on understanding user awareness, trust, and concerns related to data privacy and security in fintech applications.

REVIEW OF LITERATURE

Zhang, W., Siyal, S., Riaz, S., Ahmad, R., Hilmi, M. F., & Li, Z. (2023). "Data Security, Customer Trust and Intention for Adoption of Fintech Services: An Empirical Analysis from Commercial Bank Users in Pakistan."

The DAS, PEU, PU, CT, and FP had been found to affect the intention to use fintech service in Pakistan. The study then utilizing data from 297 attended respondents and assesses the data by Partial Least Squares Structural Equation Modeling (PLS-SEM) confirms that DAS, PEU, PU, FP and CT all significantly influence adoption intentions. In addition, PEU and DAS are significant in predicting CT and FP whereas promotion has virtually no effect on trust. The Technology Acceptance Model (TAM) literature is extended and it is demonstrated that, for fintech technology, strong data protection and customer trust are essential to enhance adoption of fintech technology in emerging economies.

Nangin, M. A., Barus, I. R. G., & Wahyoedi, S. (2020). "The Effects of Perceived Ease of Use, Security, and Promotion on Trust and Its Implications on Fintech Adoption."

In this paper, we evaluate PEOU, security, and promotion's effect on trust and fintech adoption in Indonesia, using Sakuku users. A SEM-PLS analysis of the data collected from 100 respondents shows that PEOU and promotion predict trust, while security does not. The study also shows that trust is the key to fintech adoption and additionally recommends that fintech brands improve user experience and promotional efforts, if they want to increase usage, especially of young, digitally literate consumers.

Dash, B., Sharma, P., & Ali, A. (2022). "Federated Learning for Privacy- Preserving: A Review of PII Data Analysis in Fintech."

I discuss the current discussions about utilizing federated learning as a privacy- preserving method of analyzing personal identifiable data (PII) in fintech in this conceptual review. Federated learning, a decentralized data processing model that improves data privacy by keeping the user data local to device, is explored by this paper. We then review various applications of this approach in fintech, in particular around complying with data protection regulations, such as GDPR. This work describes how data minimization and anonymization yield privacy benefits as well as federated learning enabled principles, and its associated challenges such as privacy leak and scalability.

Olaiya, O. P., Adesoga, T. O., Adebayo, A. A., Sotomi, F. M., Adigun, O. A., & Ezeliora, P. M. (2024). "Encryption Techniques for Financial Data Security in Fintech Applications."

In this paper, the encryption techniques, which act as encryption method for protecting the financial data among the fintech, are presented together with symmetric, asymmetric, hybrid and homomorphic encryption. It highlights the protection mobile banking and digital payments gain from end-to-end encryption. This work reviews strengths, limitations, and practical applicability of each technique, and further,

discusses some future trends such as post quantum cryptography and AI based adaptive security. Evolving encryption

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strategies are essential to both secure fintech innovation and regulatory compliance in an ever more digital financial landscape, the authors stress.

Abdul-Rahim, R., Bohari, S. A., Aman, A., & Awang, Z. (2022). "Benefit–Risk Perceptions of FinTech Adoption for Sustainability from Bank Consumers' Perspective: The Moderating Role of Fear of COVID-19."

This study explores perceived benefits and risks of fintech services, how COVID-19 fear moderates these perceptions, and the impact of fintech adoption on sustainability. The data (N=400) collected from Malaysian bank consumers were used in structuring a structural equation modeling (SEM) approach where perceived benefits were shown to significantly influence adoption, while perceived risks do not. This article shows that fear of COVID-19 moderates the benefit adoption relationship and mediates the risk adoption relationship. The results suggest that using consumer sentiment and limiting perceived risk can encourage the placement of fintech services favorable, improving economic and environmental results.

STATEMENT OF THE PROBLEM

With the rapid growth of fintech applications, users are increasingly reliant on digital platforms for financial transactions, investment management, and personal banking. While these applications offer convenience and innovation, they also raise significant concerns about data privacy and security. Users often share sensitive personal and financial information on these platforms, making them vulnerable to data breaches, unauthorized access, and misuse of information. Despite regulatory efforts and the implementation of security features by fintech firms, there remains a gap in understanding how users perceive these efforts and whether they trust the platforms they use.

OBJECTIVES OF THE STUDY

1. To analyze user perception of the safety features implemented by fintech platforms.
2. To identify key concerns among users regarding data breaches and misuse of personal information.
3. To explore the influence of privacy policies and app permissions on user confidence.
4. To understand user behavior related to sharing personal and financial data on fintech platforms.

SCOPE OF THE STUDY

The study is limited to users of fintech applications and focuses on their perceptions of data privacy and security. Data was collected from 100 respondents through a structured questionnaire. The research analyses user trust levels, awareness, concerns, and behaviour regarding privacy and security features available in fintech services.

NEED OF THE STUDY

- To understand user concerns regarding privacy and security in fintech applications.
- To assess the effectiveness of security measures implemented by fintech companies.
- To identify factors influencing user trust and adoption of fintech services.
- To provide recommendations for improving data protection and user confidence.
- To support fintech companies in developing customer-centric privacy practices.

IMPORTANCE OF THE STUDY

- Helps fintech companies understand customer expectations regarding privacy and security.
- Assists in improving security measures and transparency.
- Enhances customer trust and satisfaction.
- Supports regulatory compliance and responsible data management.
- Contributes to academic and industry knowledge about fintech adoption and user behaviour.

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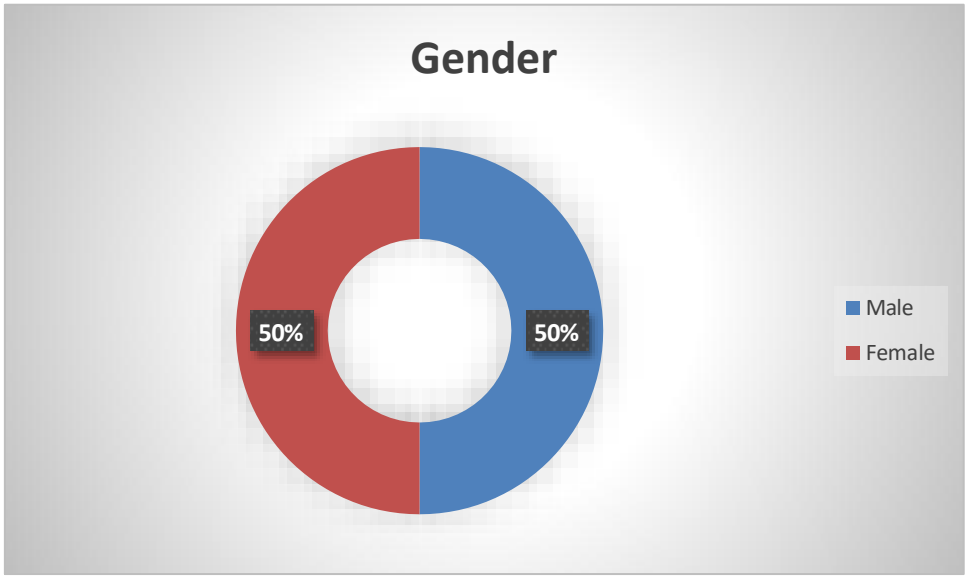
DATA ANALYSIS AND INTERPRETATION

1. Gender

Table no. 1

"Gender"	"No. of Respondents"	"Percentage"
"Male"	50	50%
"Female"	50	50%
"Total"	100	100%

Chart no. 1



Interpretation:

The gender distribution of respondents is evenly split, with 50% male and 50% female participants. This balanced representation ensures that the study reflects perceptions of data privacy and security in fintech applications across both genders.

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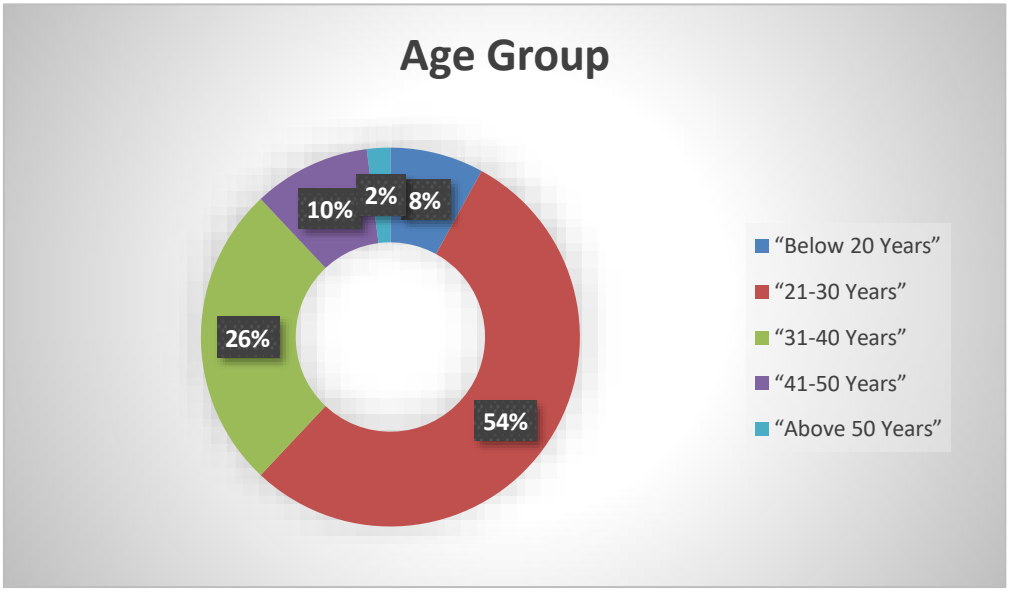
Vol. 01, Issue 2, June2026, pp :312-320

2.Age Group:

Table no. 2

"Age Group"	"No. of Respondents"	"Percentage"
"Below 20 Years"	8	8%
"21-30 Years"	54	54%
"31-40 Years"	26	26%
"41-50 Years"	10	10%
"Above 50 Years"	2	2%
"Total"	100	100%

Chart no. 2



Interpretation:

The majority of respondents (54%) belong to the 21–30 years age group, indicating that young adults are the most active users of fintech applications. This is followed by 26% in the 31–40 years group, showing that the user base is predominantly composed of tech-savvy and financially active individuals.

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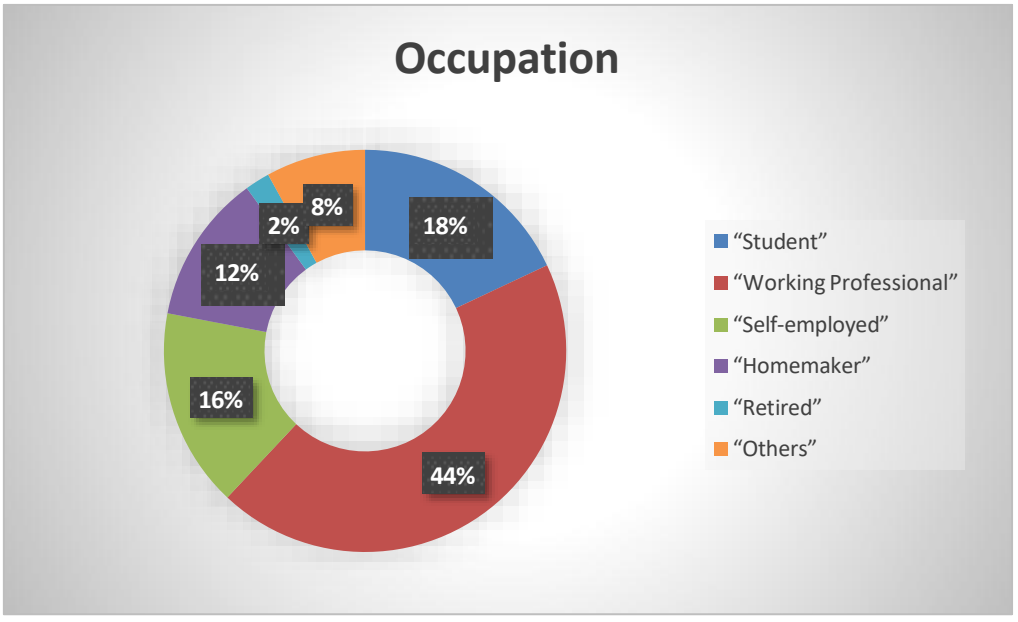
Vol. 01, Issue 2, June2026, pp :312-320

3. Occupation:

Table no. 3

"Occupation"	"No. of Respondents"	"Percentage"
"Student"	18	18%
"Working Professional"	44	44%
"Self-employed"	16	16%
"Homemaker"	12	12%
"Retired"	2	2%
"Others"	8	8%
"Total"	100	100%

Chart no. 3



Interpretation:
Most respondents (44%) are working professionals, suggesting that employed individuals are the primary users of fintech applications. Students (18%) and self- employed users (16%) also form significant user groups, indicating widespread adoption across various occupational segments.

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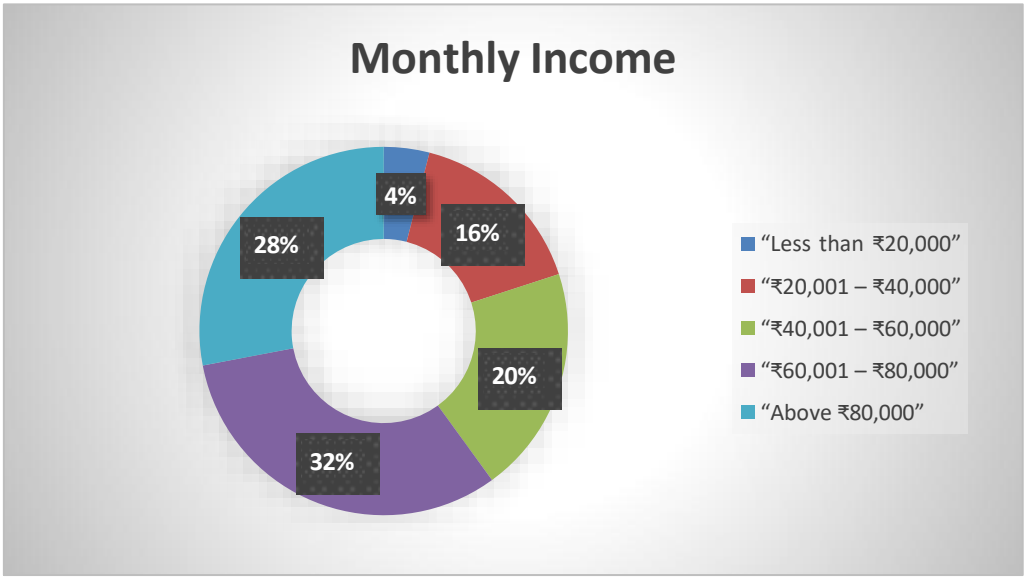
Vol. 01, Issue 2, June2026, pp :312-320

4. Family Monthly Income:

Table no. 4

"Monthly Income"	"No. of Respondents"	"Percentage"
"Less than ₹20,000"	4	4%
"₹20,001 – ₹40,000"	16	16%
"₹40,001 – ₹60,000"	20	20%
"₹60,001 – ₹80,000"	32	32%
"Above ₹80,000"	28	28%
"Total"	100	100%

Chart no. 4



Interpretation:
The majority of respondents (32%) fall within the ₹60,001–₹80,000 income bracket, followed closely by 28% earning above ₹80,000, indicating that fintech application users are largely from middle to upper-income households. This suggests a strong adoption of fintech services among financially stable individuals.

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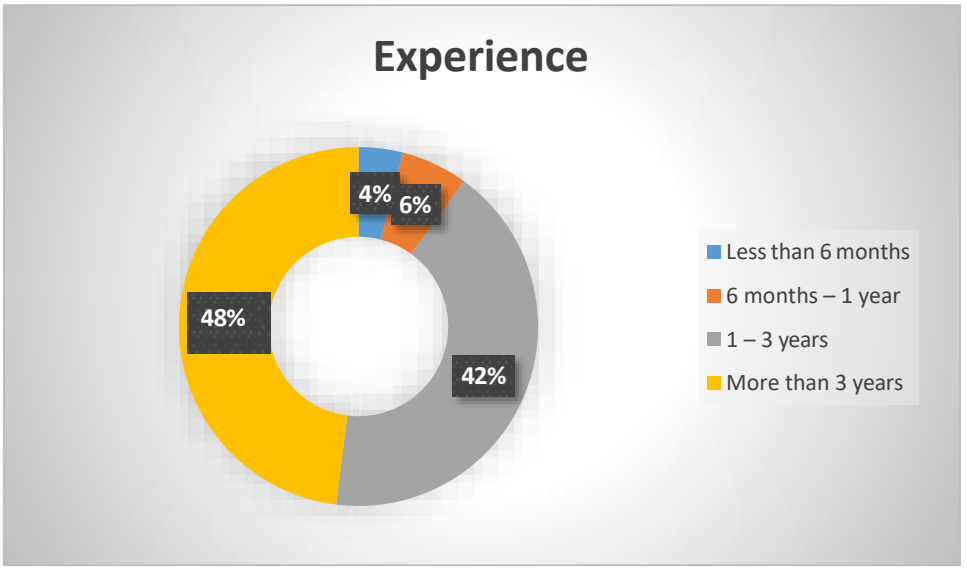
Vol. 01, Issue 2, June2026, pp :312-320

5. How long have you been using fintech applications?

Table no. 4.5

"Experience"	"No. of Respondents"	"Percentage"
"Less than 6 months"	4	4%
"6 months – 1 year"	6	6%
"1 – 3 years"	42	42%
"More than 3 years"	48	48%
"Total"	100	100%

Chart no. 4.5



Interpretation:

A significant portion of respondents have substantial experience with fintech applications, with 48% using them for more than 3 years and 42% for 1–3 years, indicating a mature and well-acquainted user base whose perceptions are shaped by long-term usage.

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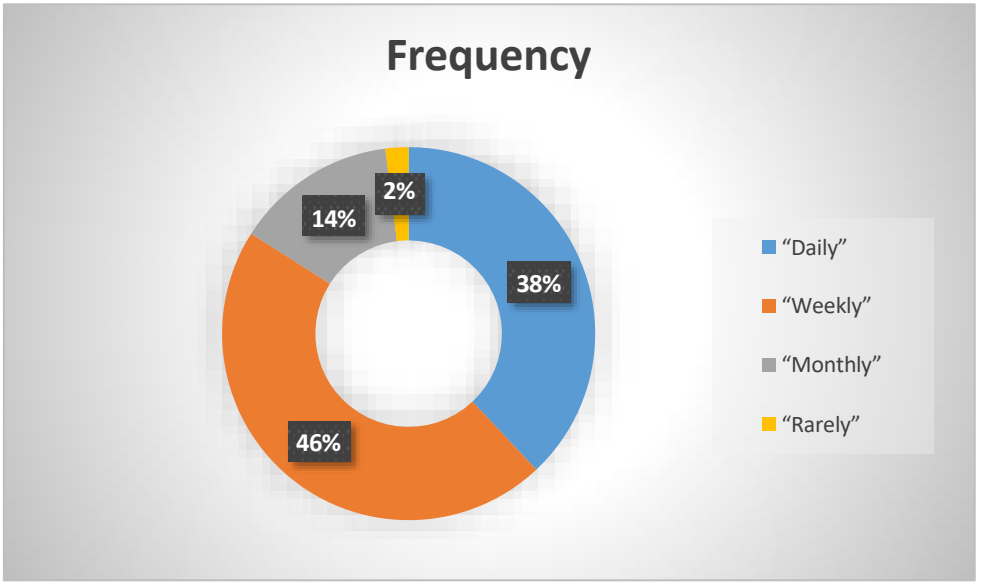
Vol. 01, Issue 2, June2026, pp :312-320

6.How frequently do you use fintech apps?

Table no. 4.6

"Frequency"	"No. of Respondents"	"Percentage"
"Daily"	38	38%
"Weekly"	46	46%
"Monthly"	14	14%
"Rarely"	2	2%
"Total"	100	100%

Chart no. 4.6



Interpretation:
The majority of respondents use fintech apps frequently, with 46% using them weekly and 38% using them daily, highlighting a high level of engagement and reliance on these platforms for regular financial transactions.

Summary of Findings

- Users have a positive perception of fintech services due to convenience and accessibility.
- Security features positively affect user trust.
- Concerns regarding data misuse and breaches remain significant.
- Many users lack awareness of privacy policies and data-sharing practices.
- Transparency and secure data handling improve user confidence.

Suggestions

- Simplify privacy policies for better user understanding.
- Increase awareness through in-app privacy and security education.
- Strengthen cybersecurity measures and fraud detection systems.
- Improve transparency regarding data collection and sharing.
- Provide timely communication in case of security incidents.

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Conclusion

Data privacy and security are critical determinants of user trust and adoption of fintech applications. Although users generally trust fintech platforms, concerns about privacy and data misuse continue to exist. Fintech companies must focus on robust security measures, transparency, and user education to strengthen customer confidence and ensure sustainable growth. Effective privacy protection and secure data management will remain essential for the future success of the fintech industry.

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