

# An Empirical Analysis on Impact of Fin-tech in Personal Financial Planning

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**Abstract:** Incorporating technology into the financial Service industry is the latest development that has significantly altered the business. Fin-tech has brought in changes the mindset of individuals from traditional services to modern technology. Embedded finance, digital regulatory standards, e-money institutions are the center of current Fin-tech movements. This study aims to investigate the reasons of people's acceptance of Fin-tech and how affected their financial planning patterns with regard to investing, savings, spending and managing their finance. In the study data were collected from 110 respondents of Rajkot city, Gujarat.

For data analysis SPSS 20 software used for reliability check, Chi-Square, Correlation and MS Excel used.

**Keywords:** *Fin-tech technology, Personal financial planning, Financial Behavior, Fin-tech satisfaction, Factors of Fin-tech use, Financial management.*

## 1. INTRODUCTION:

The term Fin-tech which stands for “Financial Technology”, describes how technology is being used to develop and enhance financial services. This quickly expanding industry uses cutting-edge technology together with financial services to improve customer experiences, save expenses, and streamline financial procedures. Key areas of Fin-tech like: Payments and Transfers, Lending and Credit, Personal Finance Management, Banking and Neobanks, Insurtech, Wealth Management and Investing, Blockchain and Cryptocurrency, Regulatory Technology. In personal Financial Management includes Budgeting and Expense tracking apps, Robo-advisors and advanced analytics help individuals understand market trends and make data-driven decisions.

## 2. REVIEW OF LITERATURE:

[1] The paper explores the evolution of financial technology (Fin-Tech) following the 2008 financial crisis and its impact on traditional financial services. It highlights how regulatory changes, including the Dodd-Frank Act and Basel III, reshaped banking operations and paved the way for Fin-Tech 3.0. The emergence of Reg-Tech is noted as a critical development to streamline compliance processes. Different regulatory approaches are compared, with the UK adopting a principle-based system and China favoring a product-based model. The paper emphasizes the importance of balancing innovation with consumer protection and systemic stability. It concludes by advocating for future

regulations focused on transaction thresholds to reduce compliance costs for smaller entities while fostering sustainable growth.

[2] This paper highlights Fin-Tech's transformative role in banking through digital payments, peer-to-peer lending, block chain, Robo-advisors, and Insurtech. Fin-Tech enhances financial inclusion and efficiency while disrupting traditional models. Despite challenges like regulatory complexities and security concerns, it offers opportunities for innovation and improved financial access,

[3] The rise of Fin-tech investments and the advent of smart phone technology have played a significant role in shaping the modern standard of personal financial management (PFM). In today's world, managing finances has become almost exclusively digital, prompting the development of numerous applications and technologies aimed at making digital PFM more user-friendly and engaging.

[4] In this study higher level of understanding of financial products has strong and positive effect on individual's fin-tech products. This study shows the relationship between awareness and uses of Fin-tech. The data was collected from 1000 respondents from 100 communes in 29 districts of 8 cities. In data analysis 30% of respondents uses smart phones under 30 years mostly in urban areas. 31% of aware of Fin-tech products and only 4% used that product. Findings said that awareness is wide but actual uses of technology is low, some variable like age, education, job status and literacy ratio.

[5] The study indicates that factors such that an ease of use, trust and individual performance are crucial in determining the effectiveness of fin-tech services in improving financial management particularly among younger users in urban areas like Chennai. The data collected from 250 respondents and data analysis done through SPSS. Furthermore, there is a notable correlation between user's financial behavior and their overall satisfaction with fin-tech platforms, highlighting that better financial behavior leads to greater satisfaction

[6]The study reveals that financial literacy and locus of control have a significant positive effect on financial management behavior, while Fin-tech does not show a significant impact. The surveying 317 students from population. Data was collected through questionnaires and analyzed using multiple linear regression techniques with SPSS.

[7]The key factors influencing this adoption include demographic variables such as age and gender, with findings showing that younger individuals, particularly young men with incomes, are more inclined to embrace Fin-tech services. Research based on Technology Acceptance Model, Demographic, social and economic variables, Perceived risk and benefits and regression model to be used. Key findings of age and gender influences like negatively impact the likelihood of using Fin-tech services with older respondents showing slower adoption rates. For statistical analysis SAS and SPSS, MS Excel also used.

[8] The research indicates that factors such as ease of use, perceived risk, and perceived utility significantly influence the adoption of Fin-Tech services. When users find financial technology platforms simple to navigate, perceive manageable risks, and recognize tangible benefits, they are more likely to embrace these innovations. These elements collectively shape consumer behavior and drive the growth of digital financial services. Understanding these factors is crucial for FinTech companies seeking to design user-friendly, secure, and valuable solutions that meet evolving customer expectations.

### 3. OBJECTIVES:

To study the relationship between the demographic profile and factors that makes effect on the use of Fin-tech on Salaried employees

To study the correlation between the benefits of using Fin-tech

### HYPOTHESIS:

**H<sub>1</sub>:** There is no significant difference between Factors of Fin-tech with Demographic variables.

**H<sub>2</sub>:** There is no Correlation between the benefits of Fin-tech of salaried individuals.

### 4. RESEARCH METHODOLOGY:

It refers to the systematic approach and set of principles used to conduct research. It encompasses the strategies, techniques, and tools employed to identify, collect, analyze and interpret information or data to answer a specific question or achieve a goal.

**4.1 RESEARCH DESIGN:** The research was conducted in the urban region of Rajkot city, Gujarat, focusing on understanding the factors influencing the adoption of FinTech services in this metropolitan setting. Data collection was carried out using a structured, close-ended questionnaire method.[9] This approach allowed for the standardized gathering of responses, facilitating a quantitative analysis of user perceptions and behavior toward financial technology adoption. The urban demographic provided valuable insights into the tech-savvy and evolving financial preferences of residents in a rapidly developing city.

**4.2 DATA COLLECTION:** The survey was conducted using an online questionnaire, allowing for efficient data collection from a diverse group of respondents in urban Rajkot, Gujarat. A total of 110 participants were selected through convenience sampling, ensuring a broad representation of individuals familiar with or potentially interested in FinTech services.

**4.3 STATISTICAL TOOLS:** The survey employed both the Chi-Square test and correlation analysis to examine the relationships between various factors influencing the adoption of Fin-Tech services in urban Rajkot, Gujarat.

**4.3.1 CHI-SQUARE TEST:** This non-statistical method was used to assess the association between categorical variables, such as demographic factors and user adoption patterns. It helped determine whether significant relationships existed between factors like age, gender, education, and the likelihood of adopting Fin-Tech services.

**4.3.2. CORRELATION ANALYSIS:** This method was applied to measure the strength and direction of relationships between continuous variables, such as perceived usefulness, ease of use, risk perception, and adoption levels. By analyzing correlation coefficients, the study identified how positively or negatively these factors influenced user adoption. The combination of these methods provided a robust statistical framework, offering deeper insights into the dynamics between user characteristics, perceptions, and Fin-Tech adoption trends.

**5. DATA ANALYSIS:**

**TABLE-1 : RELIABILITY STATISTICS**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | No of Items |
|------------------|--|-------------|
| .820             | .825   | 13          |

**INTERPRETATION:** A Cronbach's Alpha value of 0.820 indicates good reliability. This suggests that the items in the questionnaire are highly consistent and measure the same underlying construct effectively.

Here's a properly formatted table combining all the data and hypothesis test results for better reliability and understanding:

**TABLE-2: GENDER CROSS TABULATION AND HYPOTHESIS TEST RESULTS**

| Variable    | Age Group   | Count | Chi-Square Value | p-value | Degrees of Freedom (df) | Significant ? (α = 0.05) | Null Hypothesis Decision |
|-------------|-------------|-------|------------------|---------|-------------------------|--------------------------|--------------------------|
| Accuracy    | 20-30 years | 39    |                  |         |                         |                          |                          |
|             | 31-40 years | 32    | 21.064           | 0.176   | 16                      | No                       | Accept Null Hypothesis   |
|             | 41-50 years | 25    |                  |         |                         |                          |                          |
|             | 51-60 years | 11    |                  |         |                         |                          |                          |
|             | > 61 years  | 3     |                  |         |                         |                          |                          |
| Ease of Use | 20-30 years | 39    |                  |         |                         |                          |                          |
|             | 31-40 years | 32    | 15.606           | 0.481   | 16                      | No                       | Accept Null Hypothesis   |
|             | 41-50 years | 25    |                  |         |                         |                          |                          |
|             | 51-60 years | 11    |                  |         |                         |                          |                          |
|             | > 61 years  | 3     |                  |         |                         |                          |                          |

|                             |             |    |        |       |    |    |                        |
|-----------------------------|-------------|----|--------|-------|----|----|------------------------|
|                             | > 61 years  | 3  |        |       |    |    |                        |
| Monitor Financial Objective | 20-30 years | 39 |        |       |    |    |                        |
|                             | 31-40 years | 32 | 11.113 | 0.519 | 12 | No | Accept Null Hypothesis |
|                             | 41-50 years | 25 |        |       |    |    |                        |
|                             | 51-60 years | 11 |        |       |    |    |                        |
|                             | > 61 years  | 3  |        |       |    |    |                        |
| Literacy                    | 20-30 years | 39 |        |       |    |    |                        |
|                             | 31-40 years | 32 | 15.017 | 0.247 | 12 | No | Accept Null Hypothesis |
|                             | 41-50 years | 25 |        |       |    |    |                        |
|                             | 51-60 years | 11 |        |       |    |    |                        |
|                             | > 61 years  | 3  |        |       |    |    |                        |
| Trust                       | 20-30 years | 39 |        |       |    |    |                        |
|                             | 31-40 years | 32 | 4.471  | 0.998 | 16 | No | Accept Null Hypothesis |
|                             | 41-50 years | 25 |        |       |    |    |                        |
|                             | 51-60 years | 11 |        |       |    |    |                        |
|                             | > 61 years  | 3  |        |       |    |    |                        |
| Societal Influence          | 20-30 years | 39 |        |       |    |    |                        |
|                             | 31-40 years | 32 | 19.906 | 0.069 | 12 | No | Accept Null Hypothesis |
|                             | 41-50 years | 25 |        |       |    |    |                        |
|                             | 51-60 years | 11 |        |       |    |    |                        |
|                             | > 61 years  | 3  |        |       |    |    |                        |

**SUMMARY**

p-values>0.05. None of the variables (Accuracy, Ease of Use, Monitor Financial Objective, Literacy, Trust, and Societal Influence) showed a significant association with age.

The null hypothesis is not rejected for all variables. Age does not have a statistically significant impact on any of these factors.

Here's the data and hypothesis testing presented in a consolidated table for clarity:

**TABLE-3: GENDER CROSS TABULATION AND HYPOTHESIS TEST RESULTS**

| Variable                    | Gender | Counts | Chi-Square Value | df | p-value | Significant? ( $\alpha = 0.05$ ) | Null Hypothesis Decision   |
|-----------------------------|--------|--------|------------------|----|---------|----------------------------------|----------------------------|
| Accuracy                    | Male   | 75     |                  |    |         |                                  |                            |
|                             | Female | 35     | 7.298            | 4  | 0.121   | No                               | Accept Null Hypothesis     |
|                             | Total  | 110    |                  |    |         |                                  |                            |
| Ease of Use                 | Male   | 75     |                  |    |         |                                  |                            |
|                             | Female | 35     | 9.963            | 4  | 0.041   | Yes                              | Reject the null hypothesis |
|                             | Total  | 110    |                  |    |         |                                  |                            |
| Monitor Financial Objective | Male   | 75     |                  |    |         |                                  |                            |
|                             | Female | 35     | 1.782            | 3  | 0.619   | No                               | Accept Null Hypothesis     |
|                             | Total  | 110    |                  |    |         |                                  |                            |
| Literacy                    | Male   | 75     |                  |    |         |                                  |                            |
|                             | Female | 35     | 4.631            | 3  | 0.201   | No                               | Accept Null Hypothesis     |
|                             | Total  | 110    |                  |    |         |                                  |                            |
| Trust                       | Male   | 75     |                  |    |         |                                  |                            |
|                             | Female | 35     | 4.819            | 4  | 0.306   | No                               | Accept Null Hypothesis     |
|                             | Total  | 110    |                  |    |         |                                  |                            |
| Societal Influence          | Male   | 75     |                  |    |         |                                  |                            |
|                             | Female | 35     | 4.557            | 3  | 0.207   | No                               | Accept Null Hypothesis     |
|                             | Total  | 110    |                  |    |         |                                  |                            |

**SUMMARY OF RESULTS:**

1. Ease of Use: Significant association between gender and ease of use ( $p = 0.041 < 0.05$ ). Reject the null hypothesis.

2. All other variables (Accuracy, Monitor Financial Objective, Literacy, Trust, and Societal Influence): No significant association with gender ( $p > 0.05$ ). Fail to reject the null hypothesis.

This suggests that while gender has a significant impact on the perceived ease of use, it does not significantly influence the other factors.

**TABLE-4: CORRELATIONS BETWEEN THE BENEFITS OF FIN-TECH IN PERSONAL FINANCIAL PLANNING:**

|               | Convenience         | Automation | Accessibility | Customization |
|---------------|---------------------|------------|---------------|---------------|
| Convenience   | Pearson Correlation | .129       | .203*         | .110          |
|               | Sig. (2-tailed)     | .181       | .033          | .253          |
|               | N                   | 110        | 110           | 110           |
| Automation    | Pearson Correlation | .129       | .080          | .410**        |
|               | Sig. (2-tailed)     | .181       | .407          | .000          |
|               | N                   | 110        | 110           | 110           |
| Accessibility | Pearson Correlation | .203*      | .080          | .271**        |
|               | Sig. (2-tailed)     | .033       | .407          | .004          |
|               | N                   | 110        | 110           | 110           |
| Customization | Pearson Correlation | .110       | .410**        | .271**        |
|               | Sig. (2-tailed)     | .253       | .000          | .004          |
|               | N                   | 110        | 110           | 110           |

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).

The results show some meaningful relationships among the variables:

**AUTOMATION** and **CUSTOMIZATION** have the strongest correlation (moderate, positive).

Accessibility is positively associated with both **CONVENIENCE** and **CUSTOMIZATION**, though the relationships are weaker.

These findings suggest that increasing automation and accessibility may enhance customization, while convenience is a smaller but significant factor in improving accessibility.

**6. LIMITATION OF THE STUDY:**

Expand the study to include users of various Fin-tech services such as digital payments, Robo-advisors, peer-to-peer lending, cryptocurrency platforms, and personal finance management apps. Compare urban vs. rural populations to explore geographical variances in behavior of Fin-tech adoption. Another we include additional

demographic variables such as education level, income, employment type, and technological proficiency. For development technological upgrades impact customer satisfaction and trust in Fin-tech platforms. Segment users into specific niches like small business owners, freelancers, or high-net-worth individuals to understand their unique needs and behaviors in Fin-tech usage.

## 7. SCOPE:

The scope of Fin-tech in personal financial planning is vast and continues to grow with advancements in technology and increasing adoption of digital tools. Fin-tech has revolutionized the way individuals manage their finances by offering more accessible, efficient, and personalized solutions. Below are the key areas where Fin-tech is significantly impacting personal financial planning: Retirement Planning, Investment Planning, Debt/Liability Planning, Tax planning, Insurance Planning.

## 8. FINDINGS & CONCLUSION:

- The young generation is the most active user group for Fin-Tech services in urban Rajkot, driven by their adaptability to digital solutions and preference for mobile-based financial tools.
- Adequate knowledge of financial management and digital technology is essential for adopting FinTech solutions. Individuals with higher literacy in these areas are more likely to use Fin-Tech for personal financial planning.
- The study found no significant relationship between gender and the adoption of Fin-Tech services, indicating that both men and women engage with Fin-Tech equally when other factors are accounted for.
- Easy access and the ability to manage finances anytime. Confidence in secure transactions and platform reliability. Personalized financial solutions tailored to user needs. Simplified processes that reduce manual tasks.
- Fin-Tech satisfaction is largely influenced by individual behaviour. Users who are open to adopting new technologies and proactive in managing their finances tend to report higher satisfaction levels.

- These findings suggest that for Fin-Tech adoption to grow further, providers should focus on improving financial and technological literacy, enhancing trust, and offering personalized and automated solutions.

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