

A Study of the Influence of Fintech on Financial Efficiency and Customer Satisfaction in the Banking Sector in Amravati City

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Abstract

The Financial Technology or FinTech for short is changing the banking sector fast. This is making banks work better and making customers happier. I want to see how FinTech is affecting the banks, in Amravati City. My main goal is to figure out how using FinTech like banking, mobile banking, online payments and automated services is changing the financial performance of banks and what customers think of them. FinTech is really important here so I will look at how it's changing the way banks work and how customers feel about it. The study looks at how FinTech's used in banks. It uses information from bank customers in Amravati City who filled out questionnaires. It also uses information from journals and banking reports. The study uses math to understand the information. It looks at things like percentages and average scores. It also sees how things are related to each other. The study finds that FinTech is very important for banks. FinTech helps banks reduce costs and make transactions faster. FinTech also helps banks make mistakes and be more efficient with money. FinTech plays a role in making banks better. The study shows that FinTech is good, for banks because it helps with costs and transaction speed and service accuracy and overall financial efficiency of banks. Moreover, the study indicates a positive relationship between FinTech services and customer satisfaction, particularly in terms of convenience, accessibility, security, and service quality. However, challenges such as lack of digital literacy and cybersecurity concerns remain barriers to full adoption. The study concludes that effective implementation of FinTech solutions can provide banks with a competitive advantage while fostering higher customer satisfaction. The research offers valuable insights for banking institutions, policymakers, and researchers to strengthen digital banking strategies in semi-urban regions like Amravati City.

Keywords: FinTech, Financial Efficiency, Customer Satisfaction, Digital Banking, Banking Sector, Amravati City

1. Introduction

The banking sector has changed a lot in the few years. This is because of the progress of Financial Technology or FinTech for short. Financial Technology is when we use technology to make financial services better. It makes things more efficient, accurate and faster for customers. We have seen things, like banking on our phones banking on the internet and digital ways to pay. We also have customer service that uses intelligence and automated ways to do financial work. All these new things have changed the way banks work in a way. Financial Technology has really made a difference in the banking sector. Banks are using FinTech solutions to stay in the business world. This is because the business world is very competitive and technology plays a role. FinTech solutions help banks cut costs and make customers happy. This change to digital is really important in countries like India. In India more and more people are using smartphones. The government is also pushing for digitalization. Peoples expectations are. They want to use digital services. All these things are making FinTech solutions very popular, in the banking industry. FinTech solutions are being used more and more in the banking industry.

The business world is really competitive now. Things are changing fast with technology and customers want things done quickly and safely. They want to be able to use banking services at any time, day or night. They do not want to wait a time to do things and they want to know what is going on with their money. They also want the banking services to be tailored to their needs.

The old way of doing banking, where you have to go to a bank and talk to someone is not being used as much anymore. Now people are using banking services because it is easy and gets things done faster. Banking services, like these are what customers want now. They want banking services that're easy to use and that get things done quickly. Banks are using FinTech to make their work easier. They want to do things and make customers happy. When we talk about efficiency in banking we mean using what we have to get the best results and not waste anything. We also want to avoid problems and mistakes. FinTech helps banks do this by taking care of transactions cutting down on paperwork making sure the information is correct and letting them make financial decisions right away. FinTech is really important, for achieving efficiency. Banks can use FinTech to improve efficiency and that is what they are doing.

FinTech is really important for the banking industry. It helps banks be more competitive and last longer. When banks use FinTech solutions they spend money on operations transactions happen faster they can manage risks better and they are more likely to follow the rules. FinTech also makes a difference to customers. It gives them easy to use systems, fast service and better access to banking. Customers also get security features.

Customer satisfaction is very important for banks. It helps keep customers coming back makes them loyal and helps banks make money in the long run. FinTech plays a role in making customers happy, with the bank. People are using computers and phones more and more. So when they do their banking they want to know that the online services are good and work well. They do not just think about how nice the bank people're when they go to the bank. They think about the banking services too. Digital banking services are very important, to them now.

The thing about FinTech is that it is becoming really important.. Its effect is not the same everywhere and for all types of customers. People have done a lot of research on cities. However not many people have studied what is happening in towns like Amravati City. Amravati City is a place because it is a big center for education, business and banking in Maharashtra. In Amravati City old ways of banking are still used,. At the same time more and more people are using digital banking. This makes Amravati City an interesting place to look at FinTech and how it is changing things. FinTech is changing the way people do banking, in Amravati City. People who live in these areas have ideas about digital things they trust them to different degrees and they use them in different ways. This makes

it really important to look at how FinTech's affecting how well banks are working and how happy customers are in these specific areas. There is not a lot of information about this so we need to do studies that focus on regions to see what really happens when FinTech is used in banks that are not in big cities. FinTech is changing things. We need to understand how it is working in these areas so we can make sure that banks are working well and customers are happy, with the service they get from FinTech.

The study looks at how FinTech affects the banking sector in Amravati City. It wants to know if FinTech helps banks do better financially and if it makes customers happier. The main question is whether banks that use FinTech do better than those that do not. The study also wants to know if customers like the technology and if it improves their experience with banks. FinTech is a part of this study because it is changing the way banks work. The study of FinTech and its impact on the banking sector, in Amravati City is important to understand how it affects efficiency and customer satisfaction. This study is special because it looks at FinTech adoption in a way. It checks how well FinTech works for businesses and for customers at the time. The study looks at how FinTech affects the money side of things and how it affects people who use it. It does this in a place like Amravati City, which's not a big city. This helps us understand what is happening in an area, which is often not seen when we look at the whole country. The study gives us an idea of what is going on in a semi-urban place, like Amravati City, which is helpful because we often do not think about these areas when we talk about FinTech. FinTech adoption is the focus of this study.

This research is based on an MBA dissertation and represents original work conducted for academic purposes. The study has not been published elsewhere and contributes to the existing body of knowledge by offering empirical evidence from a semi-urban banking environment. The findings of this study are expected to be valuable for banking professionals, policymakers, and academicians in understanding the strategic importance of FinTech and in formulating effective digital banking policies that promote financial efficiency and enhanced customer satisfaction.

2. Statement of the Problem

The Indian banking industry has changed a lot in the few years. It has moved away from the ways of banking and is now using technology to provide financial services, which people call FinTech. New things like banking on your phone Unified Payments Interface and wallets that are on the web have changed the way banks work and how people deal with them. They are also using intelligence to help customers and blockchain technology. All these new things are meant to make banks work better make transactions faster and make things easier, for the banking industry customers. The Indian banking industry is getting better because of these changes. The use of FinTech has become really popular in our country. It is growing very fast.. The effect of FinTech on how well banks and other financial companies work and how happy their customers are is not the same everywhere. FinTech is making a difference in some places. Not as much in other places. The impact of FinTech on efficiency and customer satisfaction is still not the same, in different regions.

When we talk about FinTech most people think about cities like Mumbai, Delhi and Bengaluru. These cities have digital infrastructure and people know about FinTech.. What about smaller cities like Amravati? Not many people have studied how FinTech works in these areas. Because of this we do not really understand how FinTech affects banking in these cities and what customers think about it. FinTech is still a thing in these small cities and we need to learn more about it. People in these cities use FinTech. It can change the way they do banking. So we should look at how FinTech's used in smaller cities like Amravati and see what we can learn from it. FinTech adoption is important, for these cities. Banks in Amravati City have started using technology like mobile apps and online banking. They also have cashless payment systems.. We do not have enough information to know if these things are really working for banks in Amravati City. We need to look at the banks in Amravati City and see if these new systems are helping them. The banks in Amravati City are trying to make things easier, for people.

The core research problem lies in evaluating whether FinTech adoption has genuinely improved financial efficiency—such as cost-effectiveness and transaction speed—and enhanced customer satisfaction in Amravati City. Additionally, concerns related to digital literacy, data security, service reliability, and customer trust persist, raising questions about the overall success of FinTech implementation in semi-urban banking environments.

3. Review of Literature

Shaikh, A. & Karjaluo, H. (2015) — Mobile banking adoption: A literature review. Summary / Key findings: Summarizes studies on m-banking adoption from 2005-2014. Highlights key adoption models (TAM, UTAUT), and recurring antecedents (perceived usefulness, trust and confidence, perceived risk, ease-of-use), and identifies gaps in relation to demographics and long-term loyalty. Relevance: Strong theoretical underpinnings for customer-side variables (e.g., usefulness, trust) when you assess customer satisfaction at Amravati banks.

Feyen, E., Frost, J., Natarajan, H., & Saal, M. (2021) - Fintech and the digitalization of financial services (BIS/World Bank discussion). Summary/Key findings: Broad policy + empirical discussion of how Fintech impacts market structure, competition, financial stability, and efficiency. Examples where digitization has reduced costs and improved reach of services. Relevance: High-level evidence that links FinTech adoption to financial efficiency and institutions' strategies; helpful to understand the positioning of Amravati banks against the national/regional

Vives, X. (2017)-The Impact of FinTech on Banking.

Summary / Key findings: Examines how financial technologies reshape banking models, enhance cost efficiency, and improve competition. Finds that FinTech innovations streamline processes, lower intermediation costs, and improve financial access, but also introduce regulatory challenges. Relevance: Provides insight into how FinTech contributes to financial efficiency and modernization in the banking system, supporting evaluation of operational improvements in Amravati's banks.

Ozili, P. K. & Syed, A. A. (2024) — Financial inclusion and fintech research in India: A Review (MPRA). Summary / Key findings: A systematic review of Indian fintech literature; shows fintech has materially improved access (payments, wallets) but effects on formal banking metrics and bank performance are heterogeneous. Importance: India-specific review to anchor your Amravati study in national evidence on fintech → inclusion/usage.

Shukla, V. S. S., Shekhawat, V., & Sinha, S. (2024) – The effects of technology on bank costs and efficiency (preprint / working paper). Summary / Major findings: Empirical work (India) shows initial technology adopters had better efficiency and narrower NIM, with compensating transitional costs. Relevance: Direct empirical evidence linking technology adoption → financial efficiency for Indian banks; informative for your measures of efficiency (cost to income, NIM, transaction speed)

Li, L., Subrahmanyam, A., & Zhang, K. (2023)- Title: Does FinTech innovation improve traditional banks' efficiency and risk measures? Summary/Key Findings:

This study examines how FinTech-driven innovations (mobile apps, automation, digital credit evaluation, etc.) influence bank efficiency metrics. Using machine-learning models and global bank data, the authors find that FinTech adoption reduces operational costs, improves cost-to-income ratios, enhances profitability, and reduces certain risk measures through better credit analytics. Relevance: Strong support for your Bank Financial Efficiency objective — especially efficiency ratio, profitability ratio, and asset-quality measures.

Bundi Ntwiga, D. (2020)- Title: FinTech and Bank Collaboration: Does It Influence Efficiency in the Banking Sector? Summary / Key Findings: This working paper investigates how partnerships between banks and FinTech companies affect operational efficiency. It finds that digital payment systems, agent banking, and automated service

channels significantly improve transaction efficiency, reduce operational expenses, and increase deposit mobilization. Relevance: Useful for your Liquidity ratio, Funding ratio, and Operational efficiency components since it shows how FinTech reduces costs and improves financial performance through collaboration.

4. Objectives of the Study

- To Study the Financial Efficiency in Banking sector of FinTech on Cashless Banking and Digital Payment Efficiency.
- To Study the key FinTech Tools contributing to faster and more Efficient Banking Operations.
- To Study the customer satisfaction regarding banking services enabled by FinTech.

5. Research Hypotheses

H₀: There is no relationship between ease of use of FinTech on Financial Efficiency and customer satisfaction

6. Research Methodology

6.1 Research Design

The researcher follows a descriptive design, to understand how FinTech affects financial efficiency and customer satisfaction in the banking sector of Amravati City. The study will assess financial efficiency based on digital payment speed, cashless transaction convenience, and service automation. Customer satisfaction will be measured using ease of use, reliability, speed, and convenience of FinTech-enabled banking services.

6.2 Sources of Data

Primary Data: Collected directly from bank customers in Amravati City using a structured questionnaires, which help get first-hand information from customers about their satisfaction and their experiences of using FinTech services.

Secondary Data: will be sourced from RBI Reports, Financial statement, academic research journals, and credible websites in respect to FinTech sector and the banking sector. The secondary data will complement the primary data by providing background data, trends, and theoretical framework relevant to the study.

6.3 Sample Design

Universe: The Universe of the study includes all bank customers and all banks operating within Amravati City.

Population: The population includes customers who regularly use digital services such as UPI, mobile banking, internet banking, and other FinTech-based cashless payment systems. From this group, useful information can be gathered about financial efficiency, commonly used FinTech tools, and customer satisfaction.

Sampling Unit: The sampling unit includes individual customers who have used FinTech-enabled services like digital payments, online banking, or automated banking tools, as they are the most relevant to evaluating efficiency and satisfaction.

Sampling Frame: The Sampling Frame includes customers of certain banks in Amravati city such as SBI, Bank of Baroda, Punjab National Bank, HDFC Bank, ICICI Bank who utilize FinTech services including mobile banking, online banking, and digital banking.

Sampling Size: The Sampling Size of the Study consists of 100 bank customers from selected banks in Amravati.

Sampling Techniques: The convenience sampling was used in this study. This method was selected as it facilitates easier access to customer responses and banks selected based on availability of financial data.

6.4 Data Collection Tools

A structured questionnaire is the main instrument for data collections in this research. It will be employed to gather data from bank customers in Amravati City. The questionnaire will contain basic, closed-ended questions to assess customer satisfaction and to assess financial efficiency annual report of selected banks, RBI statistical bulletins, bank websites.

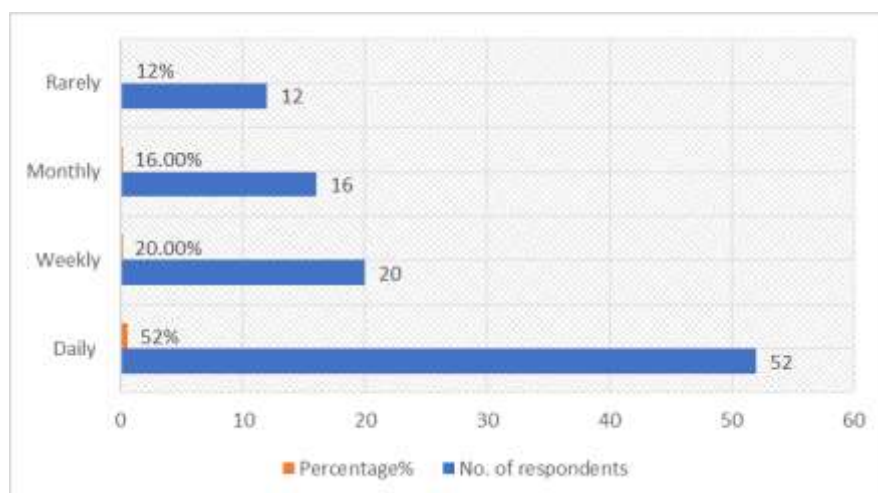
6.5 Statistical Tool Used

The information we collected for this study was looked at in a way to make it easy to understand. We used percentages to see how people answered questions in groups so we could compare what people think about FinTech services how they use them and if they are happy, with them. This way of looking at the information helps us to sum it up and show the results in a way. We also made charts to show the information we collected and to point out things we found. Bar graphs were employed to compare various variables such as awareness, usage frequency, and customer satisfaction levels. The use of graphical tools enhances understanding and allows for quick interpretation of findings. These statistical tools collectively support the study objectives by presenting data in a systematic and easily comprehensible format.

7. Data Analysis and Interpretation

7.1 Analysis of Frequency of Using Fintech/Digital Banking Service

How often Use	No. of Respondent	Percentage (%)
Daily	52	52%
Weekly	20	20%
Monthly	16	16%
Rarely	12	12%
Total	100	100%

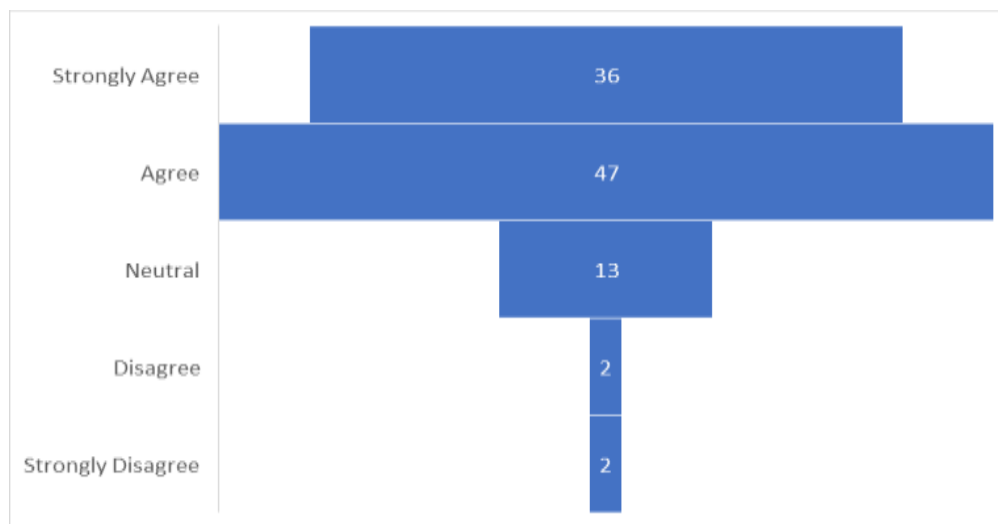


Interpretation:

The data indicates that the majority of respondents (52%) use FinTech services on a daily basis, showing a high level of dependence on digital banking facilities. About 20% of respondents use these services weekly, while 16% use them monthly. Only 12% reported using FinTech services rarely. This suggests that digital financial services have become a regular and important part of banking activities for most customers in the study area.

7.2 Analysis of Confidence in Online Financial Transaction

Confident while making online Transaction	No. of Respondent	Percentage (%)
Strongly Agree	36	36%
Agree	47	47%
Neutral	13	13%
Disagree	2	2%
Strongly Disagree	2	2%
Total	100	100%

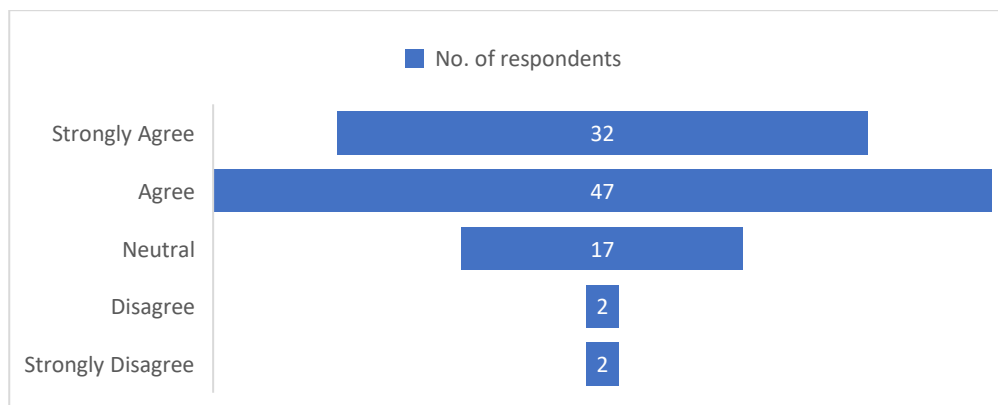


Interpretation:

The data indicates that a majority of respondents feel confident while making online transactions, with 47% agreeing and 36% strongly agreeing. About 13% of respondents remain neutral, while only a very small proportion (4%) express disagreement or lack of confidence. This suggests that most customers have trust and confidence in using online transaction services in the selected study area.

7.3 Analysis of Preference for Cashless Transaction

Prefer of cashless transaction	No. of Respondent	Percentage (%)
Strongly Agree	32	32%
Agree	47	47%
Neutral	17	17%
Disagree	2	2%
Strongly Disagree	2	2%
Total	100	100%

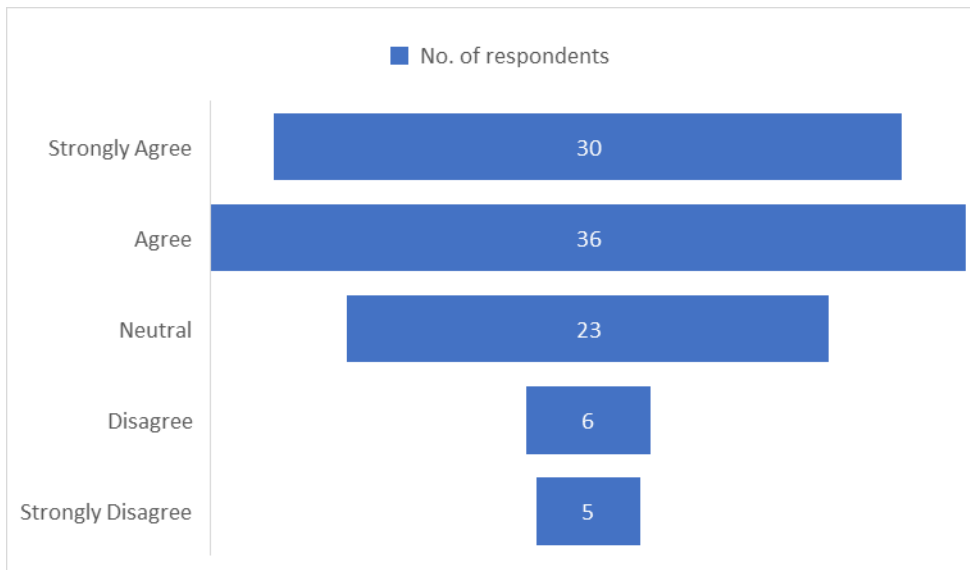


Interpretation:

The data shows that a majority of respondents prefer cashless transactions, with 47% agreeing and 32% strongly agreeing. Around 17% of respondents have a neutral opinion, while only a small proportion (about 4%) express disagreement. This indicates a strong inclination among customers towards adopting cashless modes of payment in the selected study area.

7.4 Analysis of Ease of Navigation of Fintech Apps

Ease of Navigation of Fintech apps	No. of Respondent	Percentage (%)
Strongly Agree	30	30%
Agree	36	36%
Neutral	23	23%
Disagree	6	6%
Strongly Disagree	5	5%
Total	100	100%

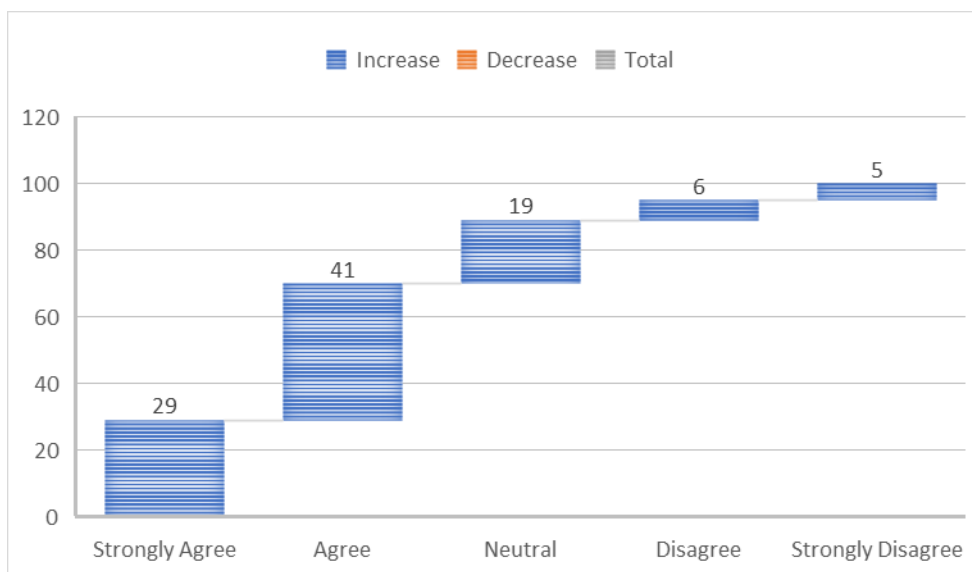


Interpretation:

The data indicates that a majority of respondents find FinTech applications easy to navigate, with 36% agreeing and 30% strongly agreeing. About 23% of respondents have a neutral opinion, while a smaller proportion (11%) express difficulty in navigating such applications. This suggests that most customers consider FinTech apps user-friendly, although some users still face challenges in using them effectively.

7.5 Analysis of Faster Transaction Processing through Digital tools

Faster Transaction	No. of Respondent	Percentage (%)
Strongly Agree	29	29%
Agree	41	41%
Neutral	19	19%
Disagree	6	6%
Strongly Disagree	5	5%
Total	100	100%

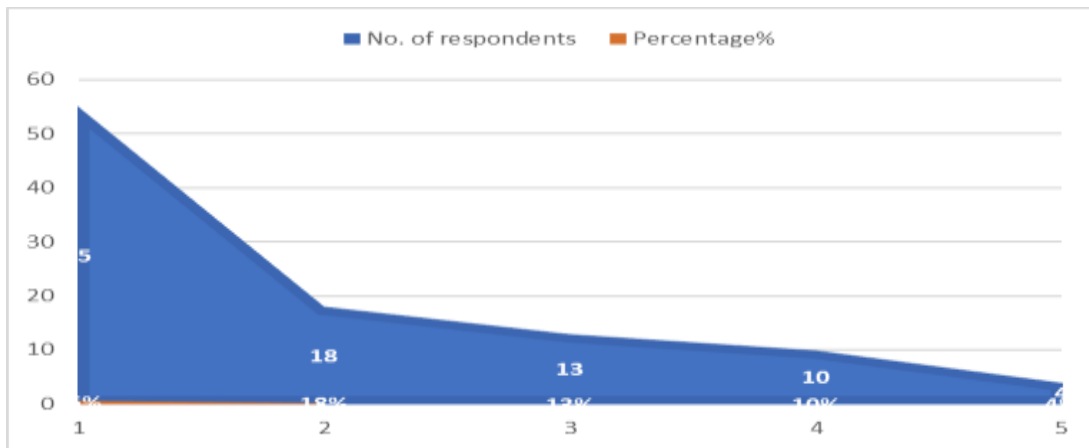


Interpretation:

The data indicates that a majority of respondents believe that FinTech enables faster transactions, with 41% agreeing and 29% strongly agreeing. About 19% of respondents have a neutral opinion, while a smaller proportion (11%) express disagreement. This suggests that most customers perceive digital financial services as effective in improving the speed of banking transactions in the selected study area.

7.6 Analysis of Satisfaction with Digital Banking Experience

Satisfaction with Digital Banking	No. of Respondent	Percentage (%)
(Satisfied)		
1	55	55%
2	18	18
3	13	13%
4	10	10%
5	4	4%
(Dissatisfied)		
Total	100	100%

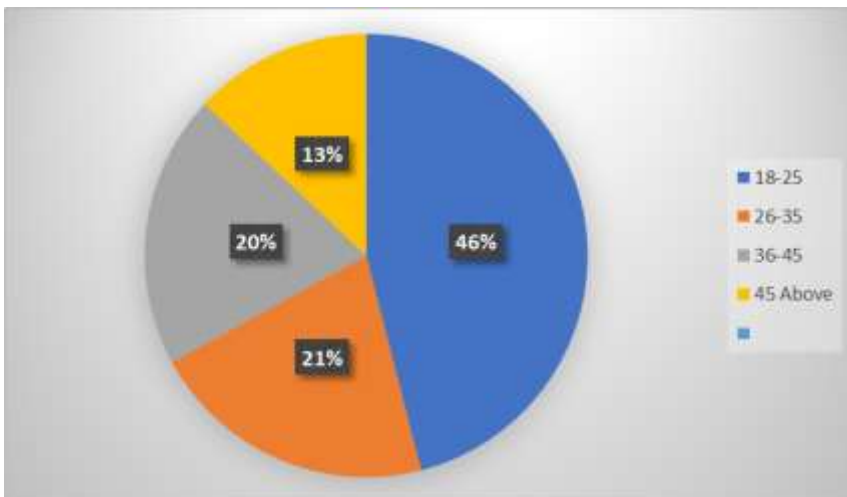


Interpretation:

The data shows that a majority of respondents are satisfied with digital banking services, with 55% indicating the highest level of satisfaction. Around 18% and 13% of respondents fall in the moderate satisfaction categories, while 10% show lower satisfaction levels. Only a small proportion (4%) of respondents are dissatisfied. This indicates that overall customer satisfaction towards digital banking services is high in the selected study area.

7.7 Analysis of Age-Wise Classification of Respondents

Age Group	No. of Respondent	Percentage (%)
18-25 years	46	46%
26-35 years	21	21%
36-45 years	20	20%
45+ years	13	13%
Total	100	100%



Interpretation:

The data shows that the majority of respondents (46%) belong to the 18–25 years age group, indicating that younger customers are the main users of FinTech services. The age groups of 26–35 years (21%) and 36–45 years (20%) have moderate participation, while respondents above 45 years represent only 13% of the total sample. This suggests that the adoption of digital banking services is higher among younger individuals compared to older age groups in the study area.

8. Finding, Conclusion, Suggestion of the Study

8.1 Finding of the Study

1. A majority of respondents (52%) use FinTech services daily, indicating high dependency on digital banking.
2. Most users (83%) feel confident while making online transactions, showing strong trust in digital systems.
3. A large proportion of respondents prefer cashless transactions, reflecting a shift towards a digital economy.
4. FinTech applications are considered user-friendly by most users, though a small group still faces navigation difficulties.
5. The majority of respondents believe that FinTech enables faster transactions, improving banking efficiency.
6. Overall customer satisfaction with digital banking services is high, with more than half showing strong satisfaction.
7. Younger age group (18–25 years) dominates FinTech usage, while adoption is comparatively lower among older users.

8.2 Conclusion

The study concludes that FinTech has significantly improved banking efficiency and customer satisfaction in the selected area. Most users rely on digital financial services for daily transactions due to their speed, convenience, and ease of use. High confidence and satisfaction levels indicate strong trust in FinTech platforms.

However, the adoption is largely driven by younger individuals, while older age groups are less engaged. Although most users find FinTech applications user-friendly, a small segment still experiences difficulty in usage, highlighting the need for better accessibility and digital literacy.

Overall, FinTech has become an integral part of modern banking and plays a crucial role in enhancing customer experience.

8.3 Suggestions

1. Conduct training and awareness campaigns to educate especially older age groups about using FinTech services.
2. Simplify app design to make navigation easier for all users, including beginners.
3. Strengthen security features and educate users about safe online practices to maintain trust.
4. Offer regional language options to make FinTech apps more accessible in rural and semi-urban areas.
5. Provide quick and effective customer service to resolve user issues and improve satisfaction.
6. Banks should introduce special assistance programs for senior citizens.
7. Ensure better connectivity in rural areas to support smooth digital transactions.

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