

## **The Impact Of Digital Finance And Fintech On Enhancing Financial Inclusion**

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### **Abstract**

This research paper attempts to assess the effect of digital money on financial inclusion to ensure everyone has access to financial services. It analyses how digital money offers better cost-effectiveness and convenience to marginalised communities to empower them in help of financial inclusion. Challenges relating to the digital divide and risks of data security may restrict that progress. Fintech companies help go digital and offer services through application-driven designs on smartphone. It also focuses as to how Fintech companies (especially mobile payments, AI fraud detection) are making a difference in financial inclusion because of the ease of use. It explores as to how after the ATM boom, new technology developments started happening to finally get to blockchain and crypto. This research is very for decision-makers, to understand how Fintech, digital money and financial inclusion are related to each other it may help in building a safer and inclusive financial system.

### **Introduction:**

In today's era, use of digital money that is online banking and mobile banking is increasing accessibility for everyone. This paper attempts to assess the association of digital money and financial inclusion and the risks of digital money.

Digital money can help pay bills or send money through digital money using phone or computer in seconds by saving time for individuals and businesses. But there are challenges, too. Many people still can't access digital money even if it is available. This is called digital exclusion. As new financial technology (fintech) companies spring up, however, still there is safety is concerned. However, Digital Finance has numerous advantages such as Lower Transaction Costs, increase accessibility to financial services especially in rural areas by providing mobile banking and payments, hence improving financial inclusion. and Financial Product Diversity that can be benefited for individuals, businesses, governments and the economy. It has Challenges also such as Digital Backwardness and Data Security and Privacy. On the other side, Fintech is at the heart of innovation in digital finance and spans a wide range of technologies for financial services. Signifying a major shift from paper-based transactions, representing a blend of finance and technology in different ways.

Fintech is very important for promoting financial inclusion by providing people with accessible financial solutions. India is one of the fastest-growing countries in the world which has taken up fintech to improve the financial services in developing markets and making them easier and transaction-friendly to all. Fintech started off helping in back-office functions. Over the years, its evolution has changed the banking landscape completely. As of now, Fintech is at the very centre of customer-serving activities involved in digital transactions like online shopping, money conversion, investments, fund transfers, etc. Fintech is revolutionising the financial services industry, based on following important initiatives:

- **Chatbots Service for Customer Service:** To enhance customer experience, chatbots use computer programming and machine learning to get customer assistance or even invest advice. This technology not only improves customer satisfaction but also improves efficiency and reduces human efforts.
- **Machine Learning and AI for Fraud Detection:** Using advanced algorithms, fraud detection for banks is done with the help of a dataset. It minimizes the manual detection efforts and losses made by bank frauds.
- **Omni-channel Banking and Branch Obsolescence:** As banks go beyond physical branches to offer online banking, their physical branches become less important because of a dramatic

increase in online banking users. The shift in omni-channel banking is because of the movement in technology and consumer preferences.

- **Biometrics for Enhanced Security:** Biometrics authentication such as facial recognition, fingerprint enhances security and provides secure and smooth banking experience to users.
- **Blockchain for Digital Transactions:** Cryptocurrency and blockchain is changing the payment system as they are quicker and cheaper while providing safety and transparency.

With the innovations in fintech, banking has become an easy and accessible task in this fast-paced world. People no longer have to spend an entire day to perform bank transactions. Now that the collaborative tech has grown in popularity such as the internet, mobile phones, banks have become omnipresent. They can serve the need of the customer at anytime from anywhere.

As time changes, people's need and choice changes. Fintech demand is soaring as a younger India is coming up with better innovations. The data show that people in every part of the country are readily adopting fintech and using it in daily life. Fintech has a big chance to offer cheap services to the underbanked and unbanked sections of the society, apart from saving money and time. The diverse characteristics of the Indian population promise a high uptake of fintech because of variations in literacy, age, and region. Fintech companies, especially those that put good user experience at the heart of their offering, can help the government achieve its target of universal banking for all individuals and households.

#### **Objectives:**

1. To study how users are benefited with FinTech as compared to traditional banking services focusing on areas like convenience, time saving, security and effectiveness.
2. To examine the influence of Fintech on Traditional Banking sector.

#### **Literature Review:**

The rise of Financial Technologies (FinTech) is a major game-changer in today's business. Bulkhaurova et al. (2023) state that with rapid technological advancement and finance convergence, FinTech is altering traditional banking services, and thus it strongly influences banking functions effectively. The must-read literature will help learn about the future impact of FinTech on businesses. According to Claessens et al. (as cited in Boot et al., 2021), FinTech financing is becoming more common throughout the world as a substitute source of financing for businesses.

Financial technology or FinTech has become a hot topic in today's world, as these businesses can disrupt existing financial services (Bulkhaurova et al. 2023). FinTech refers to financial technologies that help businesses manage their financial operations and processes using special software and applications on computers and smartphones. These include loan apps, mobile payment apps, blockchain technology, robo-advisors and more (Sembiring et al., 2022). According to Warsame (2022), the rise of FinTech has changed how different companies operating in the financial services industry conduct their businesses. Thanks to FinTech, payment transactions, loans, wealth management, and insurance transactions have been made more efficient, faster, and more user-friendly. FinTech has cut out middlemen, allowing businesses and consumers to transact directly, which reduces charges and makes things work better. Besides, FinTech has given rise to new business model, processes and application that has a significant impact on financial markets and institutions. Whether small or big business, startups or companies, FinTech is important for all and thus it helps organizations dynamics.

The reviewed literature assesses the drivers of FinTech, the challenges it faces and the regulatory frameworks in different contexts. Srinivasan and Rajarajeswari (2021) look into the global evolution of fintech and its associated disruption. Further, challenges like investment management and regulation are studied. Kandpal and Mehrotra (2019) elucidate on the cashless economy in the context of India. It was propelled by globalization and development of the banking sector. But it had mixed results on financial inclusion. Raj and Upadhyay (2020) view fintech as crucial technology-based financial innovation having a powerful impact on all markets and services. Vijai (2019) views fintech emergence and challenges for the Indian finance industry.

M and R (2019) pointed out that the finance industry is evolving at a much faster rate because of the evolution of the internet which has challenged conventional notions of being resistant to change. Chugh

(2020) focuses on the regulation of fintech in India which has various consumer-focussing activities and has created a typology explaining the regulatory challenges. Pant (2021) simplifies fintech as any technology-enabled product or service focused on the financial sector and designates India as one of the largest fintech startup nations globally, attributing credit to technologies like blockchain and artificial intelligence for the emergence of new fintech. Fintech is considered capable of bringing inclusion in the financial space (Guild, 2017). Digital cash transfers apps and peer to peer lending platform can be very powerful.

Globally fintech companies are using technology to change the way financial solutions are provided. As Kavuri and Milne (2018) note, FinTech concerns the integration of emerging technologies to improve customers' digital payments and transactions. In recent years, there has been a great surge of startups in India in this sector leading to noteworthy growth and recognition globally. More and more players are entering the Indian FinTech space, thus pushing the industry further up and gaining international attention (saumya uniyal and aakriti suri, 2020). According to Wilson (2020), recent research by CB Insights mentions that 20 Indian FinTech developments made their way to the list of 250 Global greats. Services like UPI, BHIM, payment wallets and digital banking, are now daily and de facto activity, Ravi (2020) says, showing FinTech's influence on financial transactions.

### Methodology:

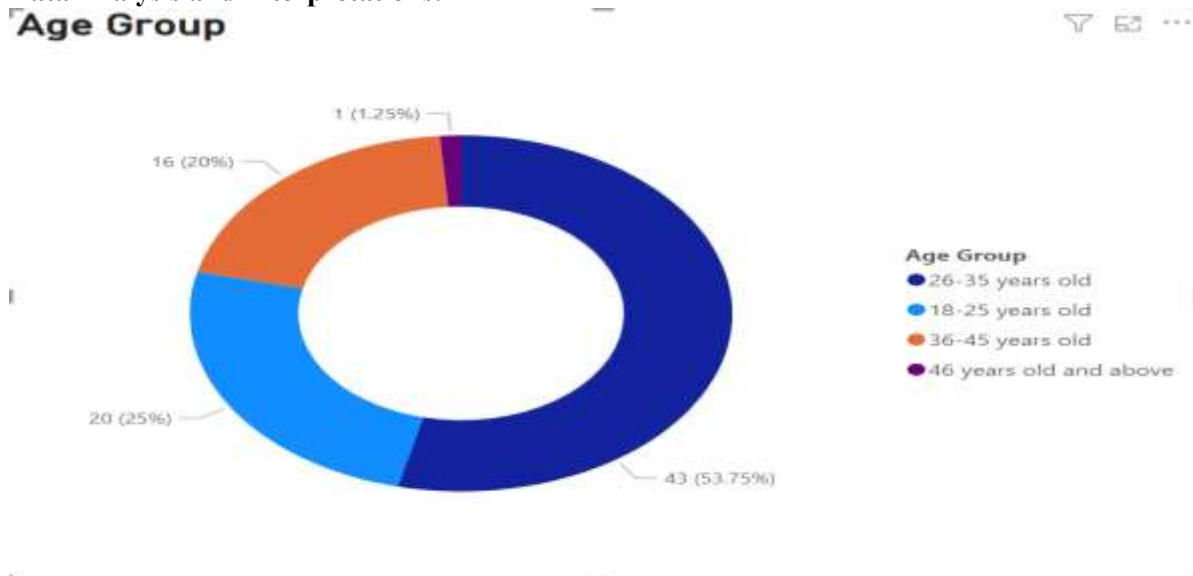
The research employs a quantitative approach through exploratory design. The research uses organized data analysis and statistics to check how effective are digital financial solutions for better accessibility, convenience and efficiency through banking.

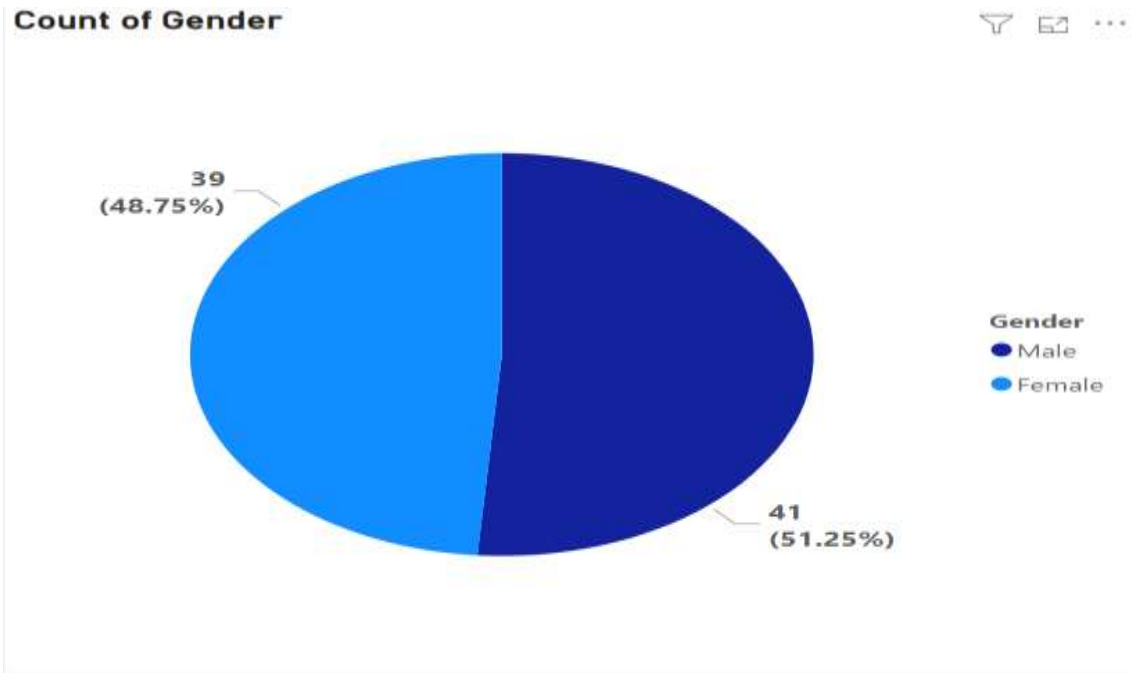
The research derives its information from first-hand observation and conducts through survey with a sample of 80 people in Delhi, NCR based on purposive sampling. The sample includes Banking Customers, Users of Financial Services, Professionals working in the FinTech industry,

### Hypothesis:

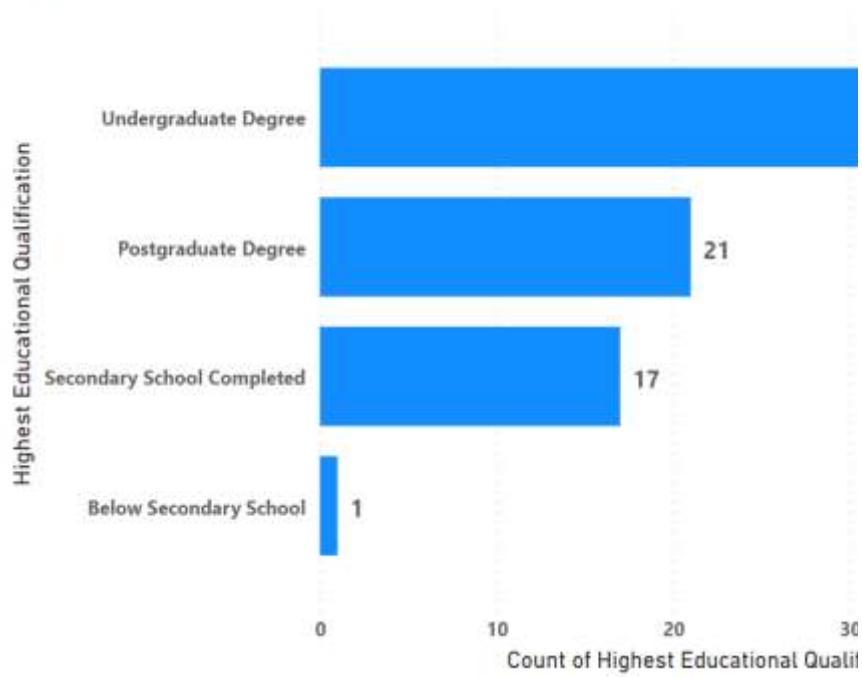
- Null Hypothesis ( $H_0$ ): Fintech innovation has no significant influence on traditional banking sector.
- Alternative Hypothesis ( $H_1$ ): Fintech innovation has a significant influence on traditional banking sector.

### Data Analysis and Interpretations:

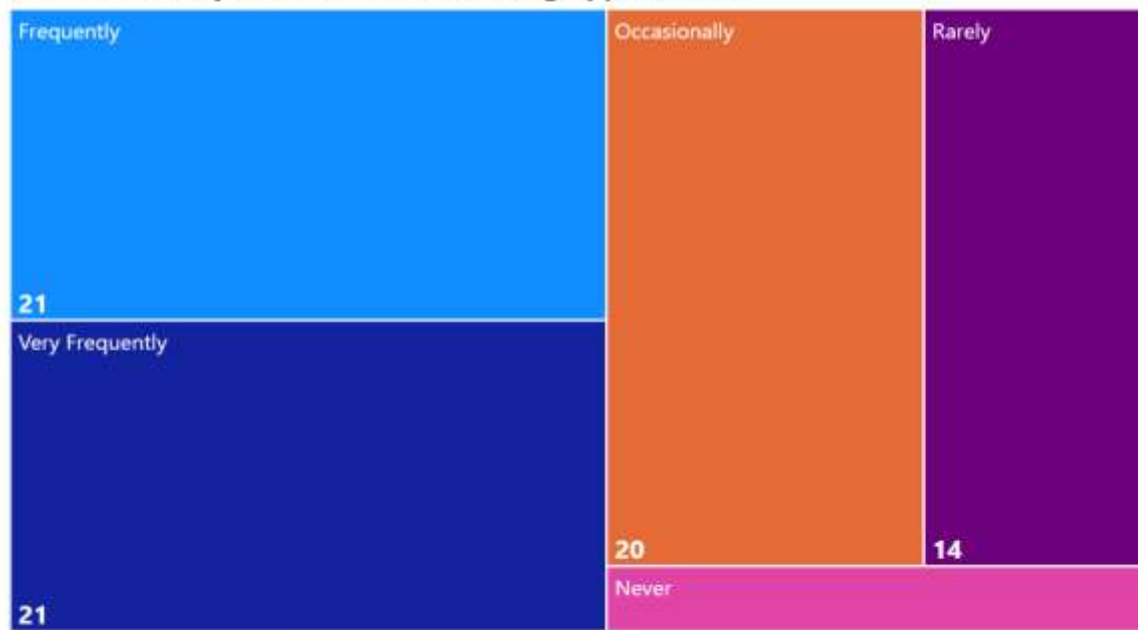




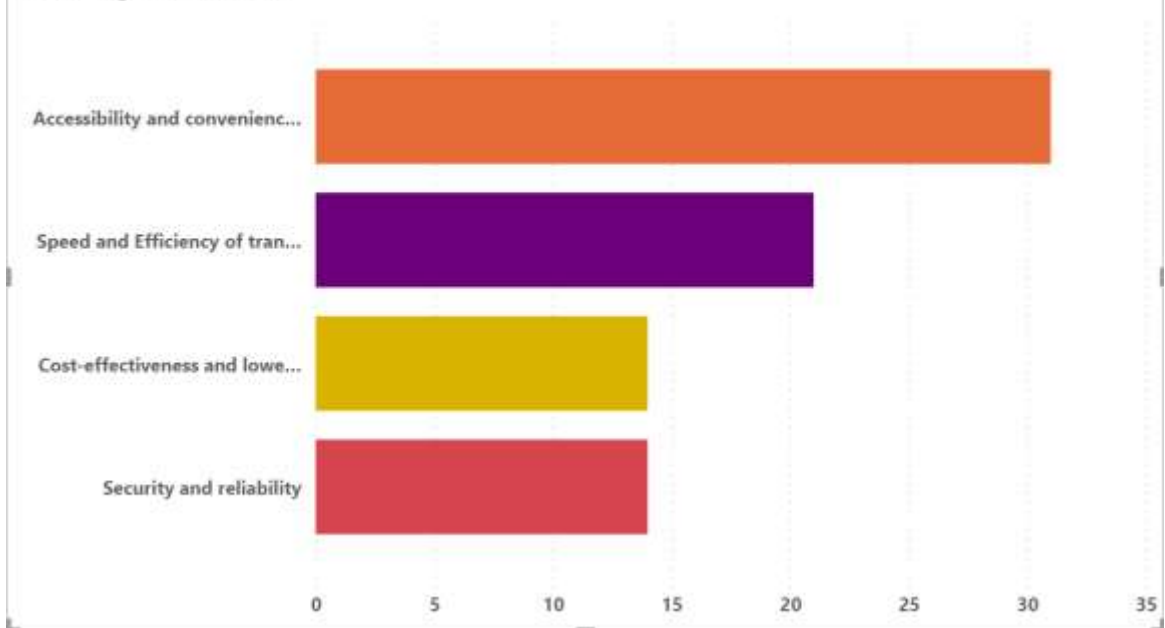
### Highest Educational Qualification



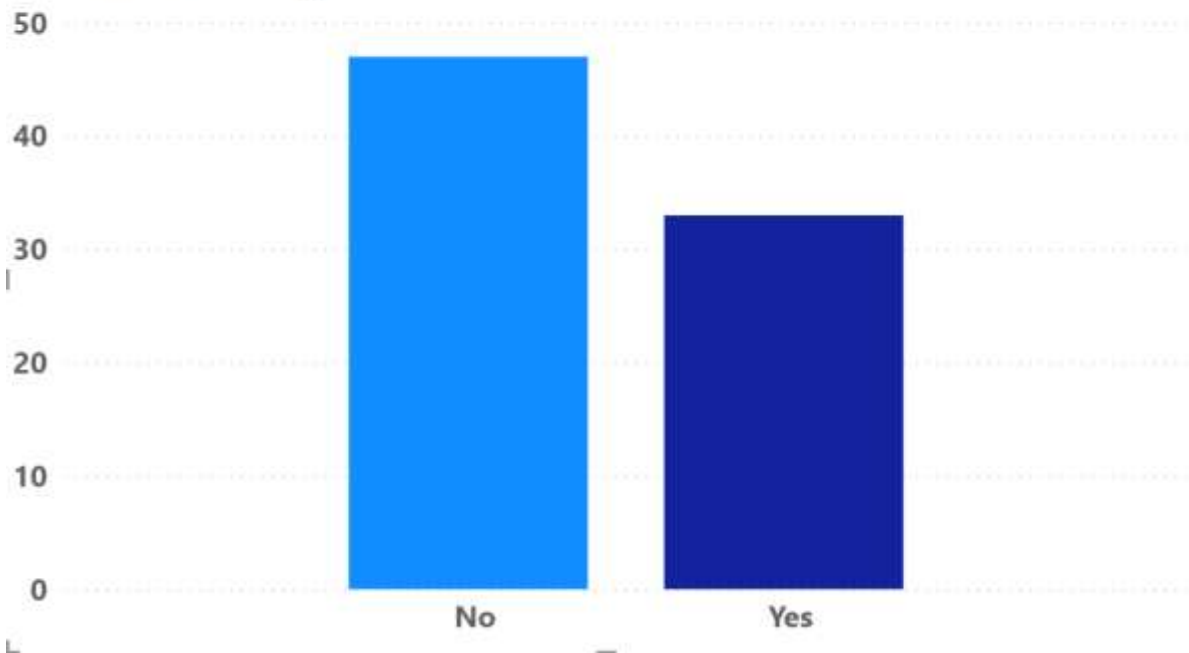
**How often do you use mobile banking applications?**



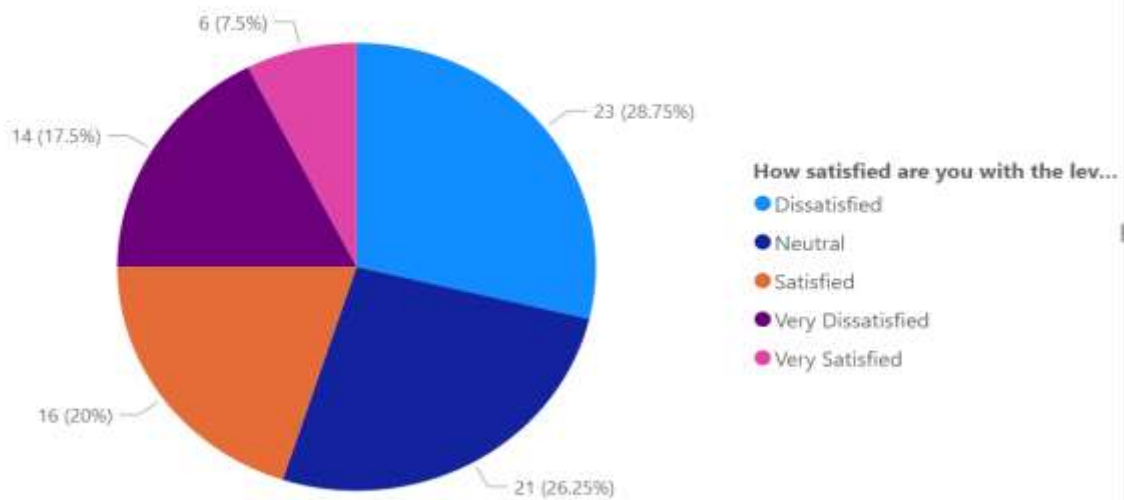
**What is the biggest advantage of Fintech solutions compared to traditional banking services?**



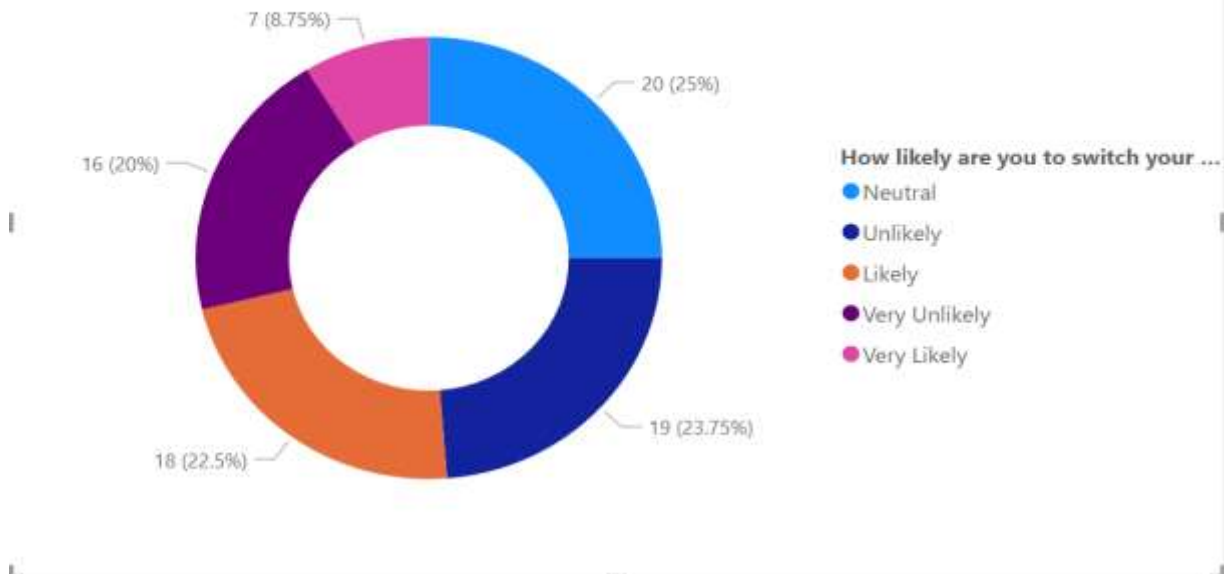
Do you think Fintech innovation has a significant threat to the full traditional banking ?



How satisfied are you with the level of customer service offered by your traditional bank?



How likely are you to switch your primary banking service to a Fintech company in the next two years?



#### Discussion and Hypothesis testing:

Hypothesis is tested by applying T-test. How has emergence of Fintech solutions impacted the overall convenience of accessing financial services in India based on the survey result.

No Change in Convenience	20 (Assuming its value to be 0)
Significantly Increased Convenience	27 (Assuming its value to be 1)
Somewhat Decreased Convenience	17 (Assuming its value to be -1)
Somewhat Increased Convenience	16 (Assuming its value to be 1)

(The assumption has been taken that due to the notable enhancement in convenience, there exists an influence on traditional banking sector.)

$\bar{x}$  as sample mean

$s$  as sample standard deviation

$n$  as sample size

$\mu_0$  as hypothesized population mean (in above case, the  $H_0$  suggests no change, so  $\mu_0=0$ )

$$t = \frac{\bar{x} - \mu_0}{\frac{s}{\sqrt{n}}}$$

Calculating Sample Mean

$$S \text{ Mean} = (20 \times 0 + 27 \times 1 + 17 \times (-1) + 16 \times 1) / 80$$

$$S \text{ Mean} = 0.325$$

$$\text{Variance} = \frac{\sum (x_i - \bar{x})^2}{n - 1}$$

$$s = \sqrt{\text{Variance}}$$

$$\text{Variance} = (0 - 0.325)^2 + (1 - 0.325)^2 + (-1 - 0.325)^2 + (1 - 0.325)^2 / 79$$

$$\text{Variance} \approx 0.0435$$

$$s \approx 0.2086$$

$$t \approx 13.86$$

Now, t-value to the critical t-value at the desired significance level (for instance, 0.05 for 95% confidence interval) with  $n-1$  degrees of freedom.

**If the calculated t-value exceeds the critical t-value, the null hypothesis will be rejected; else, it will be accepted.**

Since the calculated t-value is 13.86, which is much greater than critical t-value for 95% confidence interval having 79 degrees of freedom, null hypothesis is rejected.

**Therefore, Fintech has significant influence on the traditional banking sector in India in terms of convenience.**

**Conclusion:**

In the end, innovation in fintech is impacting the traditional banking of India significantly and disruptively. Banks must comprehend, adapt to, and change according to technological advances. Also, the strategic partnerships, digital transformation, stronger cyber security, regulatory reform, financial inclusion, and innovation is very important.

As financial services in India are continuously evolving, FinTech is becoming the disruptor that assures growth and innovation for banks. Banks that routinely use FinTech solutions will be able to provide better quality services, reach out to newer markets and serve the customer better. India is attempting to adopt FinTech with traditional banking, a mix that comes with both opportunities and challenges. To successfully cope up with the challenges presented by the digital era, the banking sector can adapt and innovate while prioritizing the demands and understanding of their customer.

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