

Fintech Adoption and Its Impact on Spending Behaviour: A Comparative Study of Males and Females in the NCR Region

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Prof. Manmeet Kumar Siras

Faculty of Commerce,

M.M.H. (PG) College, Ghaziabad

<https://orcid.org/0009-0006-0779-8125>

Shyam Pandey

Research Scholar

Faculty of Commerce,

M.M.H. (PG) College, Ghaziabad

<https://orcid.org/0009-0008-4864-0089>

Abstract— The spreading of fintech solutions in India has notably influenced the financial habits of the youth, especially in urban and semi-urban areas. This study focuses on the National Capital Region (NCR) to examine how fintech adoption among males and females is reshaping their spending behaviour. Using a structured survey of individuals of under 18, 18–25, 26–35, 36–45, 46–55, 56 and above age groups, supplemented by focus group discussions, the research analyses patterns of digital wallets, mobile banking, UPI-based payments, buy now pay later, lending platform, insurance platforms, budgeting and personal finance apps and investment apps—and their impact on consumer spending behaviour in India. Using a mixed-method approach involving surveys, observations, and interviews, the study identifies key drivers of fintech adoption, including ease of use, convenience, digital literacy, and trust in technology. The findings reveal a significant shift in consumer spending patterns, marked by increased frequency of transactions, higher impulsive spending, and greater participation in e-commerce. The paper also explores demographic differences, showing that younger

consumers are the primary adopters, while older populations face barriers. The findings indicate a high level of fintech adoption driven by convenience, peer influence, cashback/reward programs, and seamless integration with lifestyle services. This adoption correlates with increased discretionary spending, frequent small-ticket transactions, and reduced cash dependency. However, it also raises concerns about financial discipline and impulse purchasing. The study compares the spending behaviour of males and females. In this study mostly males and females are educated and employed. The study highlights the need for digital financial literacy initiatives to direct males and females to use modes of fintech services other than UPI, digital payment. The paper concludes with recommendations for fintech companies and policymakers to design youth-centric, sustainable financial products in the NCR context.

Keywords— *Fintech, Adoption, Spending Behaviour, Financial Technology*

1. Introduction

Fintech, or financial technology, encompasses a broad range of technological innovations that are revolutionizing the financial services industry. At its core, fintech refers to the use of technology to improve, automate, and personalize financial services, making them more accessible, efficient, and user-friendly. Key components of fintech include digital payments, peer-to-peer lending platforms, online banking platforms, digital wallets, buy now pay later services, online investment platforms, budgeting and personal finance apps and insurance aggregator platforms, all of which are transforming how consumers manage their finances. The rapid adoption of fintech solutions by consumers has been one of the most significant trends in the financial industry over the past decade. From mobile banking apps to digital wallets like Apple Pay and Google Wallet, fintech solutions have quickly become integral to the daily lives of millions of consumers worldwide. This widespread adoption is largely driven by the convenience, speed, and flexibility that fintech offers, allowing consumers to manage their finances on the go, make instant payments, and access a wider range of financial products and services. One of the most profound impacts of fintech has been its ability to increase accessibility to financial services. Traditionally, accessing financial services required interacting with physical bank branches, which could be time-consuming and inconvenient, especially for those in remote or underserved areas. Fintech has broken down these barriers by providing digital platforms that can be accessed from anywhere with an internet connection. This has democratized access to financial services, enabling more people to open bank accounts, invest in markets, and access credit, regardless of their location or socioeconomic status. As fintech continues to evolve, it is also driving a significant shift in consumer expectations. Consumers now expect financial services to be as seamless, personalized, and immediate as other digital experiences they engage with daily. The ability to instantly transfer money, receive tailored

financial advice, or access real-time investment insights has set a new standard for what consumers expect from their financial service providers. This shift in expectations is pushing traditional financial institutions to innovate and adapt, often partnering with fintech companies or developing their own technology-driven solutions to meet the evolving demands of their customers. The rise of fintech is not only transforming the financial services industry but also fundamentally changing how consumers interact with and perceive financial services. The increased accessibility, convenience, and personalization offered by fintech solutions are driving new consumer behaviours and setting higher expectations for the future of finance.

2. Literature Review:

The fintech revolution has fundamentally transformed global financial ecosystems, reshaping consumer behaviour, business strategies, and economic policies. This comprehensive analysis synthesizes findings from multiple scholarly works to examine the multifaceted relationship between adoption of financial technology and consumer spending patterns, while exploring the psychological, socio-economic, and technological factors influencing this transformation. The discussion is organized around five key themes: adoption drivers and spending shifts, psychological and behavioural impacts, trust and security considerations, macroeconomic implications, and future directions for research and policy.

- **Rishikaysh Kaakandikar, Yashwant Lembhe (2024)** in their study finds that many users change their spending behaviour by being inclined to spend more when using mobile digital wallets than those using other traditional methods or cash usage. This study suggests is that people are likely to spend more as an outcome of using digital wallets due to their convenience and easy operation. Empirical evidence from India reveals that 78.3% of digital

wallet users reported higher spending compared to cash transactions.

- **Janardan V., Dr. Rupa Sarkar (2024)** in their study concludes that fintech adoption has led to positive changes in financial behaviour for a majority of people. This study suggests that fintech services can significantly enhance financial discipline and promote better financial habits among users. The study also highlights the significant impact of perceived usefulness, perceived ease of use, and trust in Fintech providers on the adoption of Fintech services. Demographic factors such as age, gender, and education level also play a crucial role in influencing Fintech adoption.
- **Dr. R. Nalini and Sreelakshmi (2024)** Financial services provided through the medium of technology is the concept of Fintech. The study finds out that there are more young users of Fintech services in Chennai and that too have completed their post-graduation. This reveals that literacy plays an important role in the adoption of Fintech. Apart from this, the increased societal influence and social media promotions have been well-reached to these age category people hence influencing them to use Fintech. Surprisingly, it is seen that the factors that affect the Fintech use have significantly influenced the savings behaviour. Among those who spend a lot, the habit of savings behaviour has been cultivated in the mindsets of the individuals. The factors of individual performance and trust and security have a high influence on the financial behaviour of the individuals. This means that user's financial behaviour improves with high trust and increased performance. Thus, Fintech satisfaction highly depends upon the financial behaviour of the respondents. The better the financial behaviour, the higher the satisfaction.
- **Kanimozhi Viswanathan (2024)** in her study talks about key drivers that helps customers in fintech adoption. She tells about many types of fintech services like digital payment, digital banking and lending. This study gives a

conclusion that many key drivers like ease of making payment, time saving, offer by fintech companies plays major role in adoption of fintech products. The study also highlights that some fintech products like digital lending, etc. are not much popular.

- **Akilesh K U et.al. (2023)** concludes in their study that socio-economic characteristics Gender and Monthly Family Income of the consumers doesn't have impact on the spending behaviour. Meantime, Age and Educational Qualification have impacted the spending behaviour of consumers and usage of digital payments were seen in hypotheses testing using Chi-square Analysis.
- **Shivathanu B. (2018)** in his study adoption of digital payment system in the era of demonetization emphasised on how the digital payment system was used by the people or accepted by the people during demonetization. It was based on a conceptual framework where the sample size was 766. The data analysed suggested that behavioural intentions and innovation resistance had an impact on the actual usage.
- **Ashish Baghla (2018)** aimed to discover people's attitudes towards adopting digital payments in India, the problems people face while making digital money transfers, the most common digital payment methods, and the prospects for the future of digital payments In India. Both primary and secondary data were used. Digitalization helps increase employment opportunities, improve living standards, and especially improve electronic literacy. The study's limitations include limited coverage of areas and a small sample size of one hundred and ten people.
- **Singh (2017)** in his study showed that how digital payment and digital wallet in India was get popularized due to demonetization. As there was a tremendous growth in the usage of internet and the no. of smart phone users were also increasing so people found it convenient to use as an alternative for cash. In this study he also pointed out that

how different digital wallet companies were having competition to enter and expand the Indian market as it was the best opportunity for them to establish their company. It was also predicted that in future India will become a cashless economy and with digitalization people will surely adopt the digital mode of payment. ANOVA was used in this study to show that there is no significant variance in the consumer perception with respect to its demographic factors.

3. Research Methodology:

3.1 Research design: - A quantitative, cross-sectional, comparative design was adopted to examine whether spending behaviour associated with fintech use differs by gender (males vs. females) in India's National Capital Region (NCR). The study uses survey data and a non-parametric inferential approach (Mann-Whitney U) appropriate for ordinal/possibly non normal outcomes (e.g., Likert type scales).

3.2 Research type: This study aims to measure and analyse numerical data (spending behaviour and fintech adoption), which clearly aligns with quantitative research.

- Purpose: To identify causal or correlational relationships using numerical data
- Nature: Objective and statistical
- Data: Typically collected via structured surveys or transaction logs.

3.3 Research Objective & Hypothesis: -

Objective: - To assess whether fintech related spending behaviour differs between males and females in the NCR region. And to know that how their overall spending changed after adopting different fintech services e.g., mobile payment, online payment, digital wallet, online lending platforms, online insurance platforms, buy now pay later service, etc.

Null Hypothesis (H_0): - There is no significant difference in spending behaviour based on fintech use between males and females in the NCR region.

Alternative Hypothesis (H_1): - There is a significant difference in spending behaviour between males and females in the NCR region.

3.4 Population, Sampling Frame, and Sampling Technique: -

- **Target population:** Adult consumers (≥ 18 years) residing in the NCR who have awareness of, access to, or experience with fintech services (e.g., UPI, mobile wallets, BNPL, digital banking apps, online lending platforms, online insurance platforms, etc.).
- **Sampling frame:** Residents reachable via educational institutions, workplaces, community groups, and online/social platforms within NCR.
- **Sampling method:** Non probability convenience/stratified by gender sampling (practically feasible for field survey), with an aim to ensure adequate representation of both males and females.

3.5 Sample Size and Composition: -

Total N = 251 respondents

Females: $n_1 = 110$, Males: $n_2 = 141$

With N = 250 and balanced groups, the study has adequate power to detect small to moderate group differences on ordinal outcomes using Mann-Whitney U.

3.6 Measures and Operational Definitions

• Fintech Use / Adoption

Constructed as a composite index capturing breadth and intensity of fintech services used (e.g., number of services, frequency of transactions, duration of use). Items scored on Likert scales (e.g., 1=Never to 5=Very Often) and/or dichotomous usage indicators. Higher scores indicate greater fintech use/adoption.

Spending Behaviour (Outcome)

Measured via a multi-item scale assessing changes or tendencies in spending attributable to fintech (e.g., impulse purchases, frequency/number of digital transactions, BNPL usage, budgeting/over spending awareness). Likert type items (e.g., 1=Strongly Disagree to 5=Strongly Agree).

Sociodemographic & Control Variables (optional)

Age, education, income bracket, occupation, marital status, city within NCR, digital literacy, and frequency of internet use.

4. Data Summary: - Table I: - Demographic data presentation

Demographic Profile	Parameters	Frequency	% Of frequency
Gender	Male	141	56.2%
	Female	110	43.8%
	Others	0	0
Age Group	Under 18	04	1.6%
	18-25	76	30.3%
	26-35	110	43.8%
	36-45	38	15.1%
	46-55	21	8.4%
	56 and above	02	0.8%
Educational Qualification	High School or less	05	2%
	Intermediate	07	2.8%
	Bachelor's Degree	72	28.7%
	Master's Degree	136	54.2%
	Doctorate or Professional Degree	31	12.4%
Occupation	Employed	133	53%
	Self Employed	45	17.9%
	Student	59	23.5%
	Unemployed	05	2%
	Retired	01	0.4%
	Other	08	3.2%
Monthly Income	Less than Rs. 10,000	65	25.9%
	Rs. 10,001 – Rs. 25,000	46	18.3%
	Rs. 25,001 – Rs. 50,000	72	28.7%
	Rs. 50,001 – Rs. 1,00,000	42	16.7%

	Rs. 1,00,001 – Rs. 2,00,000	14	5.6%
	Rs. 2,00,001 and above	12	4.8%
District	Ghaziabad	77	30.7%
	Gautam Budh Nagar	38	15.1%
	Meerut	30	12%
	Faridabad	24	9.6%
	Hapur	35	13.9%
	Bulandshahr	24	9.6%
	Saharanpur	23	9.2%

The above table showing demographic information related to the respondents. Total 251 respondents have been studied in this research. Out of 251 respondents 56.2% are males and 43.8% are females. 89.2% of the respondents are from the age group ranging from 18 to 45 years. This means that the study based on the opinions of mostly young peoples. Mostly 54.2% of respondents are postgraduate, 28.7% respondents are graduate and 12.4% respondents have a doctorate degree. Out of 251 respondents 133 are employed and 45 are self-employed, 59 of them are students. Monthly income of these respondents ranging between less than 10,000 to 2,00,000 or above. This study is based on males and females living in NCR and consist data from 7 different district Ghaziabad, Gautam Budh Nagar,

Meerut, Faridabad, Hapur, Bulandshahr, Saharanpur from NCR. This table shows different demographic information related to male and female respondents residing in NCR region.

- **Data analysis regarding fintech use and its impact on respondents.**

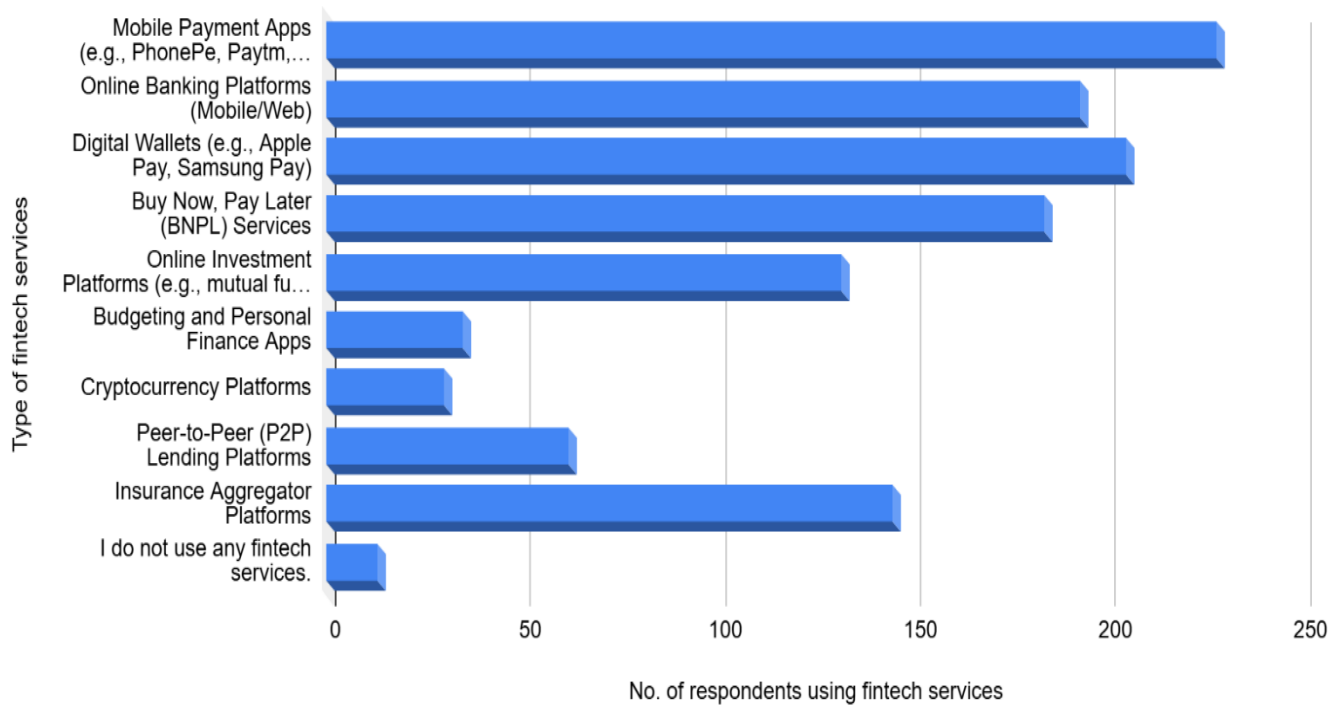
The aim of this study is to know that how males and females residing in NCR behaves financially after adopting different financial services. So, the following charts and tables showing the responses given by the respondents. In this study the comparison will be made between spending behaviour of males and females after adopting different fintech services. This data survey will provide insights to fulfil the objectives of this study.

1. Fintech services that are currently in use by respondents -----

Type of fintech services	No. of respondents using fintech services	Percentage
Mobile Payment Apps (e.g., PhonePe, Paytm, Google Pay)	228	90.47%
Online Banking Platforms (Mobile/Web)	193	76.58%
Digital Wallets (e.g., Apple Pay, Samsung Pay)	205	81.35%
Buy Now, Pay Later (BNPL) Services	184	73.30%
Online Investment Platforms (e.g., mutual fund apps, stock trading apps)	132	52.38%
Budgeting and Personal Finance Apps	35	13.88%

Cryptocurrency Platforms	30	11.90%
Peer-to-Peer (P2P) Lending Platforms	62	24.60%
Insurance Aggregator Platforms	145	57.53%
I do not use any fintech services.	13	5.15%

No. of respondents using fintech services vs. Type of fintech services



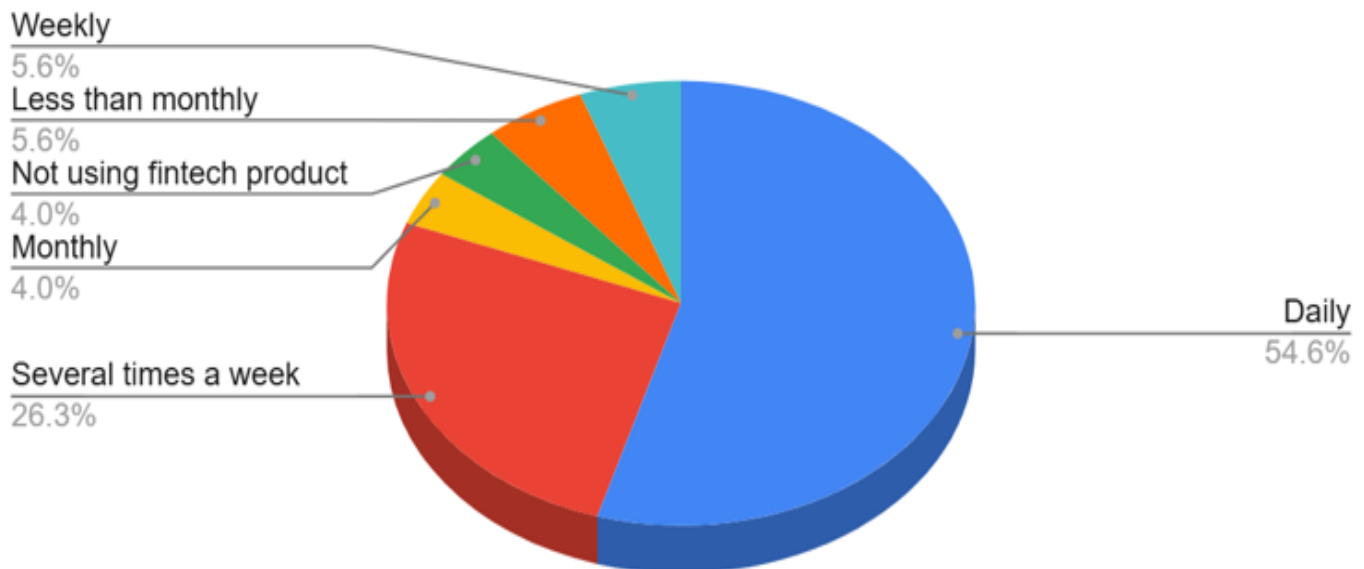
The above chart and table show that almost all respondents are aware of fintech services and using many of them like mobile payment apps, online banking platforms, digital wallets, buy now pay later services, online investment, loans and insurance platforms, cryptocurrency platforms etc. The chart shows that among all fintech services mobile payments, online banking

services, buy now and pay later service, digital wallets and online insurance services are much popular than others. This data shows that there are majority of males and females, who are using more than two or three or all type of fintech services at a time by their phone and computer.

2. How frequently do respondent use fintech services for transactions/payments?

Daily	Several times a week	Weekly	Monthly	Less than Monthly	Not using fintech products
54.6%	26.3%	5.6%	4%	5.6%	4%
137	66	14	10	14	10

Count of How frequently do respondent use fintech services for transactions/payments?



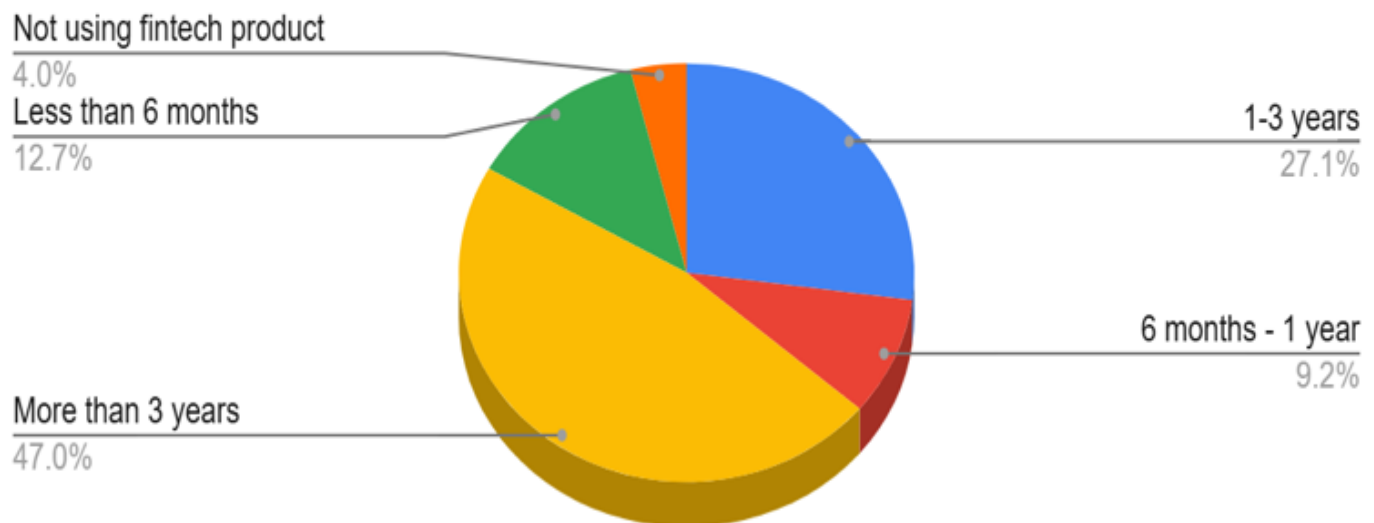
The above mention table shows the frequency of using fintech services by males and females. Due to the popularity and ease of using, convenient and time saving characteristics these fintech services get adopted by respondents. And a huge no of people using these financial technologies promptly and get benefitted by this. The massive and frequently use of these fintech services in India got the top position in online payment/transaction on global platform.

Responses shows that 203 out of 251 approximately 81% of the total respondents are using any type of fintech services daily or several times a week. Despite of all these fintech development, some people are there who are not using any type of fintech services.

3. How long have respondents been using fintech services in general?

Less than 6 Months	06 Months - 1 Year	1 Year – 3 Year	More than 3 Years	Not using fintech products
12.7%	9.2%	27.1%	47%	4%
32	23	68	118	10

Count of How long have respondents been using fintech services in general?



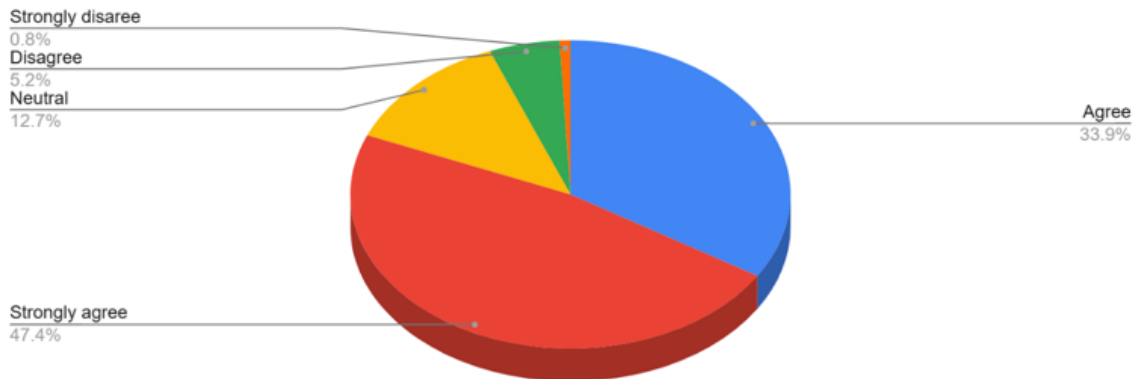
The data showing that 47% respondents using fintech service for more than 3 years and 27.1% respondents are using fintech services for more than one year. This means that most of the respondents are aware of and using fintech services for a good

time. The fintech services have become a non-separable part of shopping process of a customer. Over the years as fintech evolved and become popular among its users because of its convenience and time saving characteristics.

4. To what extent respondents are agree that after financial technology become popular and accepted by vendors, the no. of vendors in the local markets have increased?

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
0.8%	5.2%	12.7%	33.9%	47.4%
2	13	32	85	119

Count of To what extent respondents are agree that after financial technology become popular and accepted by vendors, the no. of vendors in the local markets have increased?



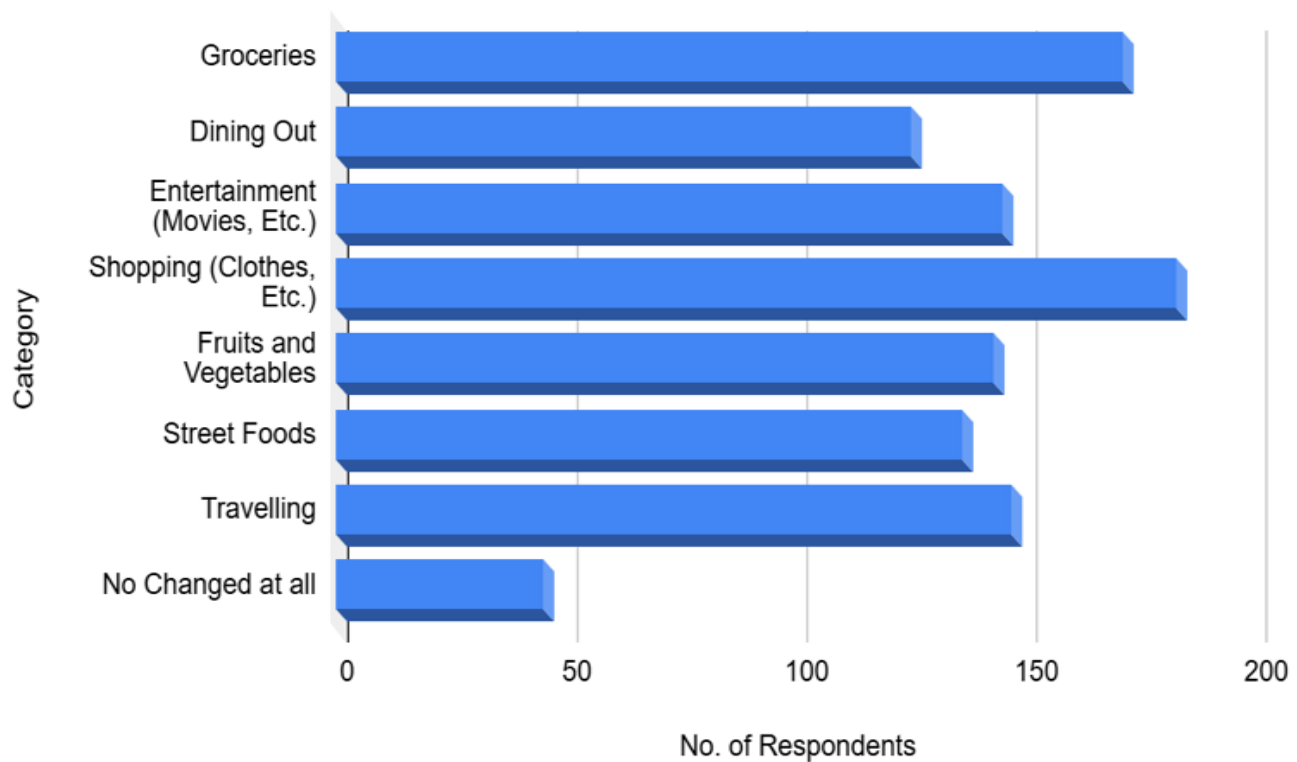
The above chart tells us that majority 81.3% of respondents believe that after financial technology becomes popular and due to launch of different fintech services, customers as well as vendors both accepted these services. And the ease of using

these fintech products encourage people to start their small businesses in local market which results in an increase of no. of vendors in the local market.

5. Respondents using fintech options for the payment on buying of Groceries, Shopping (clothing, electronics, utensils etc.), Fruits and Vegetables, Travelling (Auto, Bus, E-rikshaw, Taxi, Cab, etc.), E-commerce etc. In the following categories has respondent's spending changed since they started using fintech services

Category	No. of Respondents	Percentage
Groceries	171	68.12%
Dining Out	125	49.8%
Entertainment (Movies, Etc.)	145	57.76%
Shopping (Clothes, Etc.)	183	72.90%
Fruits and Vegetables	143	56.97%
Street Foods	136	54.18%
Travelling	147	58.57%
No Changed at all	45	17.92%

No. of Respondents vs. Category



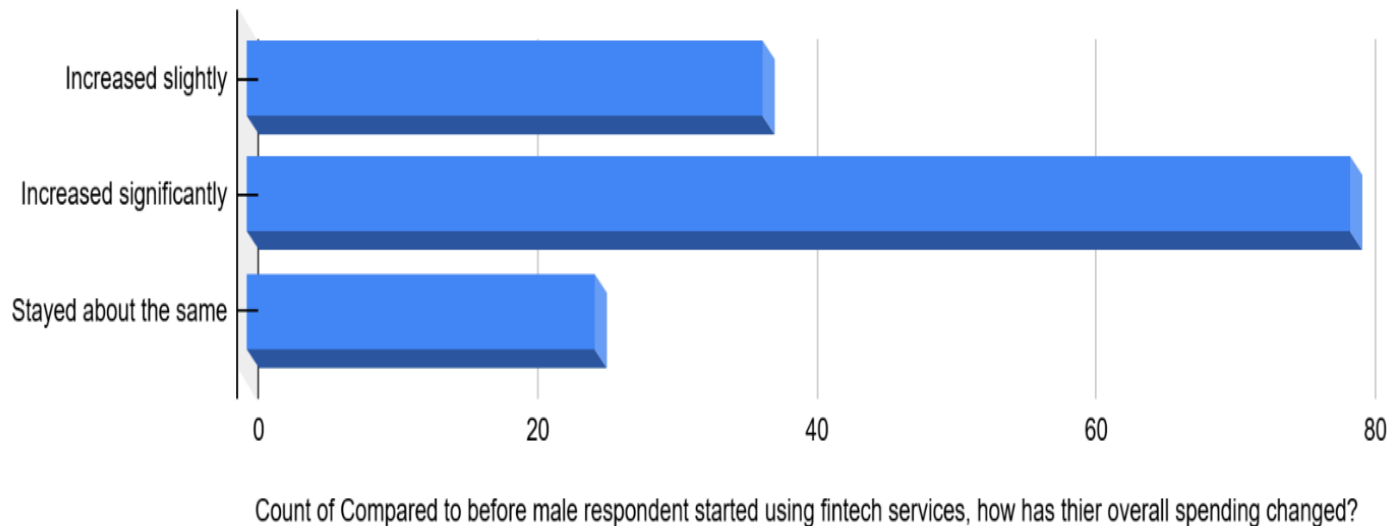
The above table shows that majority of people have the opinion that after adoption of fintech services their spending has changed on their day-to-day activities like shopping, travelling, buying groceries, fruits & vegetables and many other things.

Impulse purchases and increasing buying options are the reasons of changing spending behaviour of male and female customers in the NCR. The following chart showing the graphical presentation of the table.

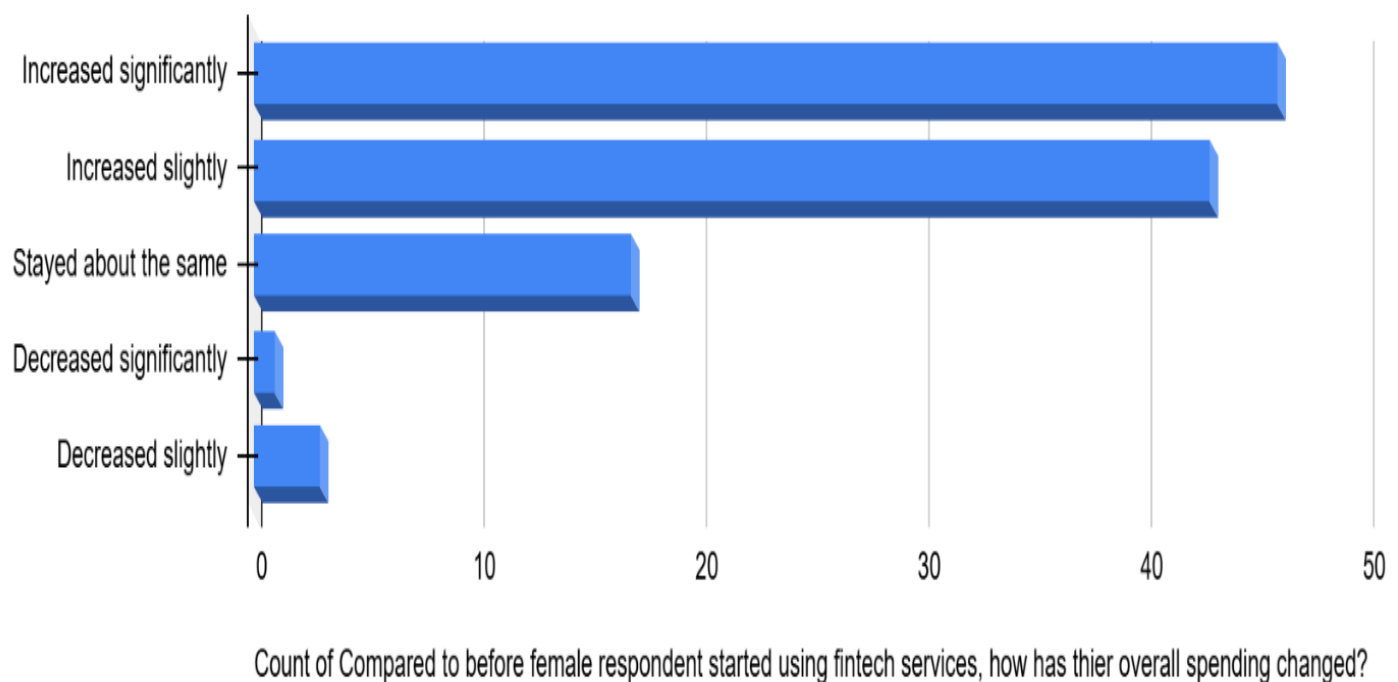
6. Compared to before respondent started using fintech services, how has their overall spending changed?

Gender	Decreased Significantly	Decreased Slightly	Stayed about the same	Increased Slightly	Increased Significantly	Total
Male	0	0	25	37	79	141
%	0%	0%	17.73%	26.24%	56.03%	100%
Female	1	3	17	43	46	110
%	0.91%	2.73%	15.45%	39.1%	41.82%	100%
Aggregate	1	3	42	80	125	251
%	0.4%	1.2%	16.7%	31.9%	49.8%	100%

Count of Compared to before male respondent started using fintech services, how has thier overall spending changed?



Count of Compared to before female respondent started using fintech services, how has thier overall spending changed?



The above-mentioned table and charts show that majority 82.27% of male and 80.92% female respondents believe that their spending has increased after adopting fintech services. The major reasons of the increasing spending can be ease of using these financial technologies and their frequently use. In today's fintech era a buying process of a random customer is incomplete without use of any type of fintech service.

7. Do respondents feel that fintech services have changed the way they budget or manage their money?

Gender	No, not at all	Yes, Slightly	Yes, Significantly	Total
Male	23	35	83	141
%	16.3%	24.8%	58.9%	100%
Female	21	40	49	110
%	19.1%	36.4%	44.5%	100%
Agregate	44	75	132	251
%	17.5%	29.9%	52.6%	100%

Count of Do male respondents feel that fintech services have changed the way they budget or manage thier money?

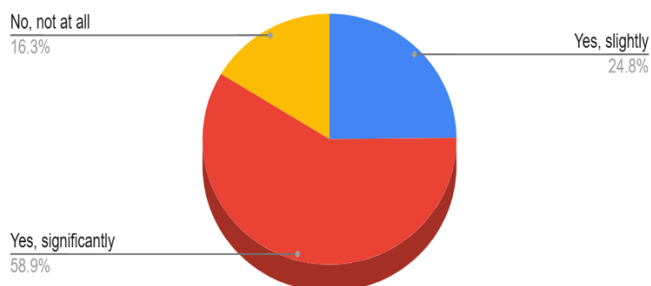


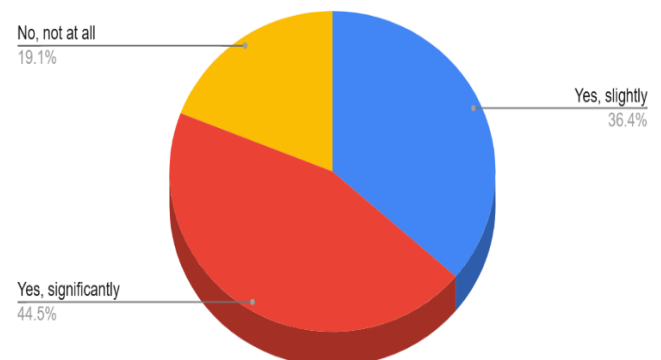
Chart smhowing that majority of 83.7% male and 80.9% female feel that adoption of fintech services have changed the way they budget of manage their money. People have so many options in fintech services field, there are so many apps and websites available those providing payment gateways, insurance, ecommerce and investment platforms. So many people become more aware of investments and saving options after adopting these fintech services. They get a better

understanding of inflows and outflows of money and become able to develop their reach to different platforms too.

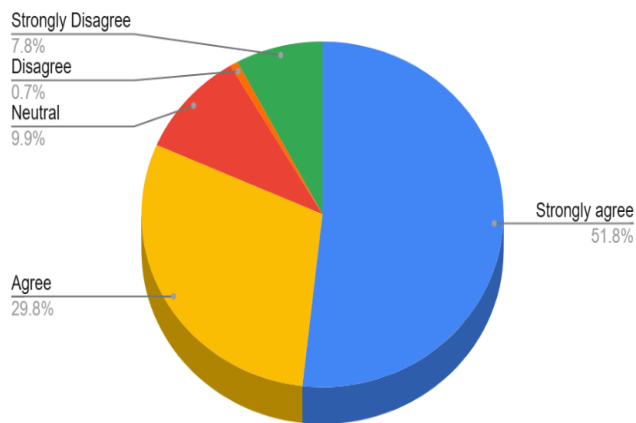
8. To what extent do respondents agree with the statements, 'fintech services have made it easier to make impulse purchases.'?

Gender	Stron gly disagree	Disag ree	Neut ral	Agr ee	Stron gly agree	Tot al
Male	11	1	14	42	73	141
%	7.8%	0.7%	9.9%	29.8 %	51.8%	100 %
Female	1	3	19	46	41	110
%	0.9%	2.7%	17.3 %	41.8 %	37.3%	100 %
Aggreg ate	12	4	33	88	114	251
%	4.8%	1.6%	13.1 %	35.1 %	45.4%	100 %

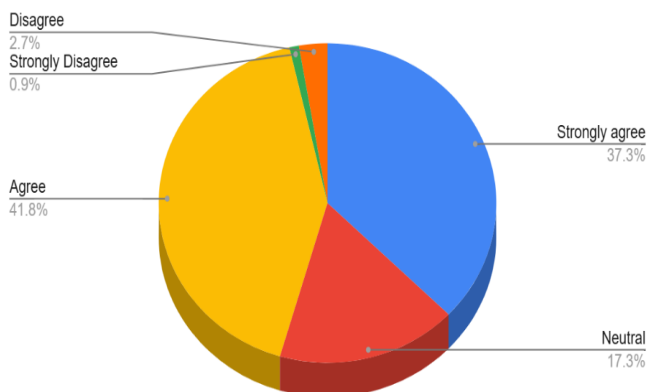
Count of Do female respondents feel that fintech services have changed the way they budget or manage thier money?



Count of To what extent do male respondents agree with the statements, 'fintech services have made it easier to make impulse purchases.'?



Count of To what extent do female respondents agree with the statements, 'fintech services have made it easier to make impulse purchases.'?

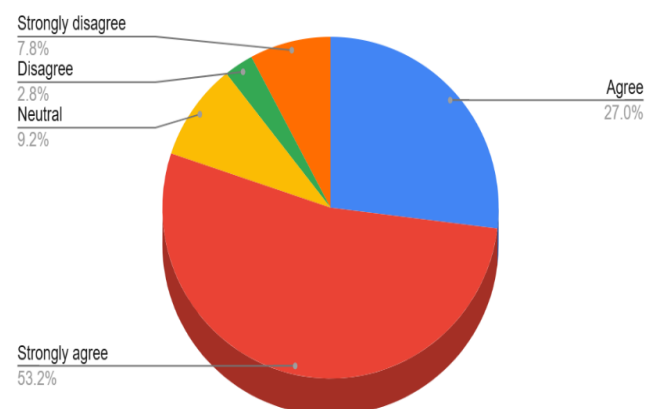


tendency of making impulse purchases among customers in NCR.

9. To what extent do respondents agree with the statement, 'the convenience of mobile payments encourages them to spend more frequently on small items.'?

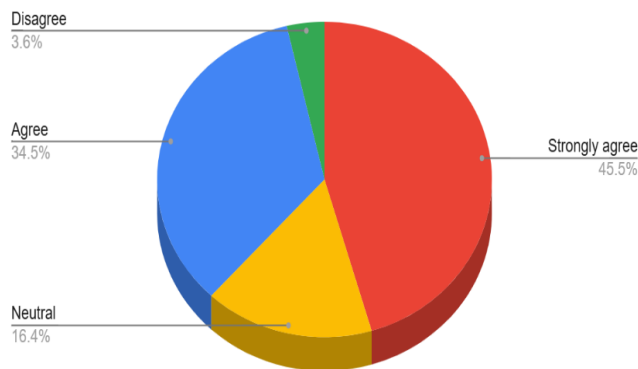
Gender	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Male	11	4	13	38	75	141
%	7.8%	2.8%	9.2%	27%	53.2%	100%
Female	0	4	18	38	50	110
%	0%	3.6%	16.4%	34.5%	45.5%	100%
Aggregate	11	8	31	76	125	251
%	4.4%	3.2%	12.4%	30.3%	49.8%	100%

Count of To what extent do male respondents agree with the statement, 'the convenience of mobile payments encourages them to spend more frequently on small items.'?



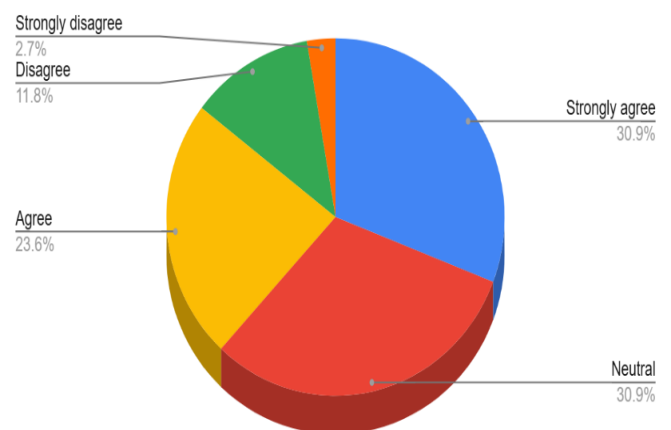
Impulse purchase means an unplanned decision of buying any product or service by a customer. Fintech uses made it easy to make an impulse purchase and e commerce platforms can be a place of making impulse purchase. Data shows that most of the male and female respondents are agree to that fintech services have made it easier to make impulse purchases. 81.6% of males and 79.1% of females believe that fintech increases the

Count of To what extent do female respondents agree with the statement, 'the convenience of mobile payments encourages them to spend more frequently on small items.'?

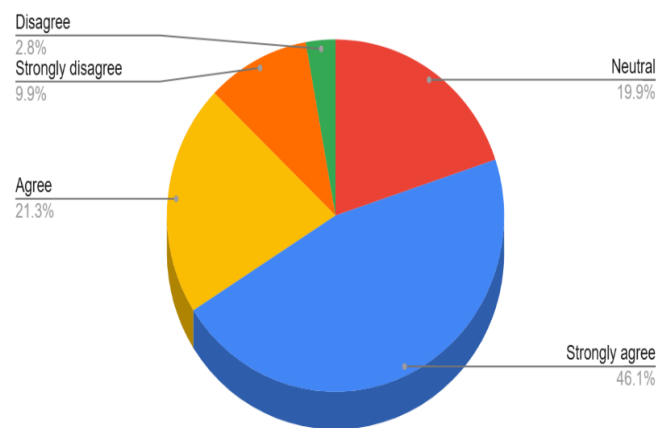


%	2.7%	11.8%	30.9%	23.6%	30.9%	100%
Aggreg	17	17	62	56	99	251
ate						
%	6.8%	6.8%	24.7%	22.3%	39.4%	100%

Count of To what extent do female respondents agree with the statement, 'Buy Now, Pay Later options have led them to purchase things they might not have otherwise.'?



Count of To what extent do male respondents agree with the statement, 'Buy Now, Pay Later options have led them to purchase things they might not have otherwise.'?



In today's modern era almost, everybody has a smartphone which facilitate or make easy to pay digitally by mobile payment apps. These payment apps provide convenience to customers while making payments. The frequently use of these apps is the main reason, that India emerges as a country with maximum no. of digital payments globally. The above-mentioned chart tells us that 80.2% males and 80% of females have opinion that convenience of mobile payments encourages them to spend more frequently on small items.

10. To what extent do respondents agree with the statement, 'Buy Now, Pay Later options have led them to purchase things they might not have otherwise.'?

Gender	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Male	14	4	28	30	65	141
%	9.9%	2.8%	19.9%	21.3%	46.1%	100%
Female	3	13	34	26	34	110

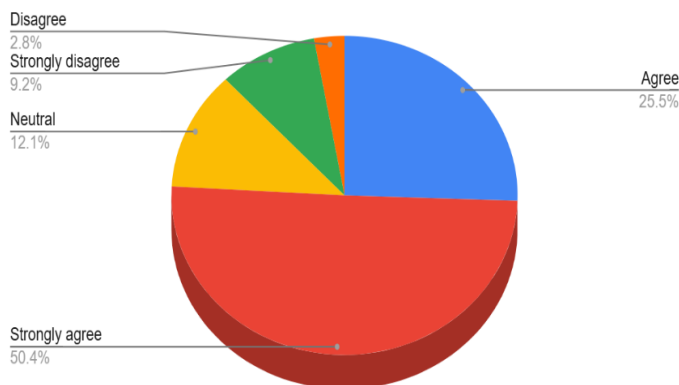
Buy Now, Pay Later option means that the customer can buy the item today and make use of it and can pay the cost of product at some future dates by once or in instalments. By this method of purchase, customers are buying home appliances,

automobile, electronic items etc. majority 67.4% of males and 54.5% of females in NCR have the opinion that, Buy Now, Pay Later options have led them to purchase things they might not have otherwise.

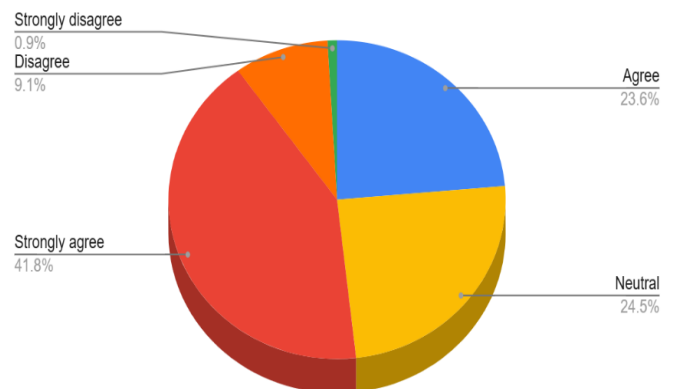
11. To what extent do respondents agree with the statement, 'Digital wallets make them less aware of the actual amount of money they are spending.'?

Gender	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Male	13	4	17	36	71	141
%	9.2%	2.8%	12.1%	25.5%	50.4%	100%
Female	1	10	27	26	46	110
%	0.9%	9.1%	24.5%	23.6%	48.1%	100%
Aggregate	14	14	44	62	117	251
%	5.58%	5.58%	17.53%	24.70%	46.61%	100%

Count of To what extent do male respondents agree with the statement, 'Digital wallets make them less aware of the actual amount of money they are spending.'?



Count of To what extent do female respondents agree with the statement, 'Digital wallets make them less aware of the actual amount of money they are spending.'?

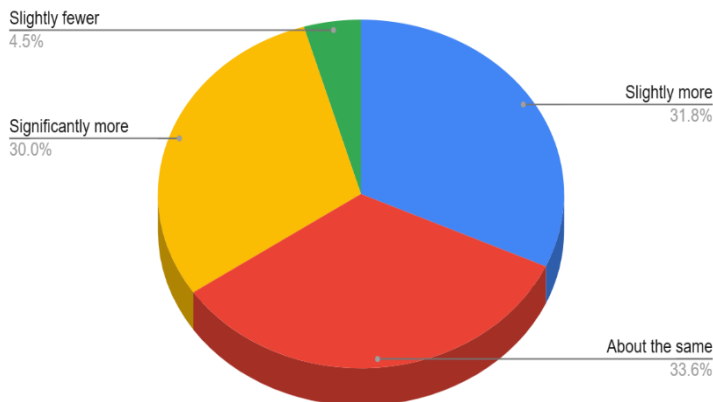


Digital wallets are another technique of making digital payments. In this a customers has to transfer some money these wallets and then they can make payment through these wallets. Majority 75.9% of males and 65.4% of females believe that digital wallets make them less aware of the actual amount of money they are spending. Reason of this could be the impulse purchases discussed earlier.

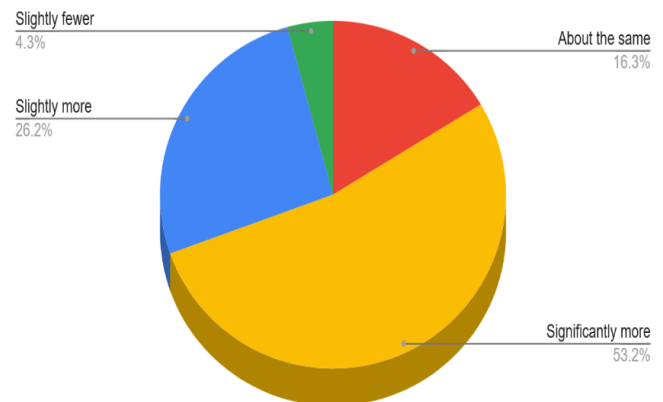
12. Do respondents anticipate using more or fewer fintech services in the future?

Gender	Significantly fewer	Slightly fewer	About the same	Slightly more	Significantly more	Total
Male	0	6	23	37	75	141
%	0%	4.3%	16.3%	26.2%	53.2%	100%
Female	0	5	37	35	33	110
%	0%	4.5%	33.6%	31.8%	30%	100%
Aggregate	0	11	60	72	108	251
%	0%	4.4%	23.9%	28.7%	43%	100%

Count of Do female respondents anticipate using more or fewer fintech services in the future?



Count of Do male respondents anticipate using more or fewer fintech services in the future?



Fintech services are developing day by day. India is witnessing new developments every year in the field of fintech services.

The future of fintech in India is very bright because of its dense young and educated population which tends to adopt fintech services more early than any other countries in the world. And the above-mentioned data reflects the same image that in NCR majority 79.4% of males and 61.8% have their opinion that they anticipate using more or fewer fintech services in the future.

5. Statistical Analysis and Hypothesis Testing

• Primary Analysis: -

In this statistical analysis comparing the distribution of Spending Behaviour scores between and females ($n_1=110$) and males ($n_2=141$) using the Mann-Whitney U test (two tailed, $\alpha=.05$). This test does not assume normality and evaluates whether one group tends to have higher ranks than the other.

• Formulas & Reporting: -

(Or symmetrically for group 2), where is the sum of ranks for group 1. For the large samples, use the normal approximation

with tie correction and continuity correction to compute and the corresponding p value (two tailed). The analysis and test conducted on the basis of total scores of both the groups e.g., males and females. For statistical analysis we calculate sum of ranks and mean of ranks of both sample and then calculate u value for both the sample after comparing it we will calculate a combined sum of ranks and mean of ranks of combined sample and calculate standard deviation from mean.

• **Hypothesis Setup: -**

Null Hypothesis (H_0): There is no significant difference in the spending behaviour influenced by fintech adoption between males and females in the NCR.

Alternative Hypothesis (H_1): There is a significant difference in the spending behaviour influenced by fintech adoption between males and females in the NCR.

Test Type: Two-tailed test (we are checking for any difference, not a specific direction) **Significance Level (α):** 0.05

• **Result Details: -**

Parameters	Sample 1 Value (Females)	Sample 2 Value (Males)
Sum of ranks	12276.5	19349.5
Mean of ranks	111.6	137.23
Expected sum of ranks	13860	17766
Expected mean of ranks	126	126
U-value	9338.5	6171.5
Expected U-value	7755	7755

➤ **Sample 1 & 2 Combined Sum of ranks: 31626**

Mean of ranks: 126

Standard Deviation: 570.7101

Significance Level: 0.05, 2-tailed hypothesis

➤ **Test Result 1-** The U-value is 6171.5.

➤ **Test Result 2 -** Z-ratio, the Z-Score is 2.77374. The p-value is .0056. The result is significant at $p < .05$.

• **Since the p-value (0.0056) is less than the significance level (0.05), we reject the null hypothesis and accept the alternate hypothesis.**

• **Result Interpretation: -**

There is a statistically significant difference in the spending behaviour influenced by fintech adoption between males and females in the NCR region. A Mann-Whitney U test was conducted to compare spending behaviour based on fintech use between males and females in the NCR region. The results showed a statistically significant difference between the groups ($U = 6171.5$, $Z = 2.77374$, $p = .0056$, two-tailed), indicating that gender has a significant effect on fintech-related spending behaviour. Thus, the null hypothesis was rejected at the 0.05 significance level.

The data summery shows that aggregate 80.9% fintech users using any type of fintech mode daily or several times in a week. Males and females both are aware of different modes of fintech services but study gives result that mostly females using very common fintech modes while males are using more methods of fintech in comparison to females and that is why spending behaviour is different from spending behaviour of females.

6. Conclusion: - Fintech is the term used to describe financial services used via technology. According to the report, National Capital Region has a higher proportion of young people using fintech services (as per study) it is found that 95% of people are using fintech services as well as having good qualification. This indicates that the adoption of fintech among males and females is significantly influenced by literacy. In this research we found that after adoption of fintech, spending behaviour of females changed less in comparison to that of males in NCR. This study also gives a valuable insight that females in comparison to males using less modes of fintech services. Where

males are using approximately all modes of fintech services on the other hand females are using only two or three modes of fintech services. Females are more familiar with mobile payment, e-commerce platforms, online banking and money transfers while less familiar with buy now pay later, online lending platforms, crypto-currency, online investment and insurance platforms. Individual performance, trust, and cybersecurity are very influential elements towards the usage of different fintech services. Fintech companies should develop different fintech literacy programme for females. The government also has to increase regulations in the cybersecurity to improve the trust towards fintech usage. The study shows that in the upcoming years majority 79.4% of males and 61.8% females anticipates more use of fintech services so, we suggest fintech companies to work on cyber security and make the use of fintech safe and also work towards more adoption by female users.

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