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# ANALYSING THE DETERMINANTS OF FINTECH ADOPTION AMONG BANKING CUSTOMERS: A STUDY IN THE CONTEXT OF SIKKIM

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## ABSTRACT

*Financial Transactions have been developing rapidly for the past decade especially in India. Financial Transactions have grown into a Digital space wherein transactions hare being conducted on a Daily basis by the populace Digitally. Government Initiatives like Digital India and the growth in Internet, Smartphone accessibility has been instrumental in leading to a growth in Digital Financial Transactions. During 2023-24 Digital transaction amounting to 18,737 cr, were accounted in India with a CAGR of 44%. However, many factors affecting the adoption and awareness of Digital financial transaction. Therefore, this paper seeks to identify the factors affecting Digital Financial Transaction in Sikkim Alongside it seeks to study the level of awareness of Digital transaction payment gateways in the state of Sikkim. For the purpose of the study the data was collected via self-structured questionnaire among 350 banking customers in all districts of Sikkim. Factor analysis and Hypothesis test have been conducted in SPSS 20.0 software of Data analysis. It was found that there are majorly 5 factors that affect the adoption of Financial Transaction namely Perceived Usefulness, Digital Infrastructure, Reliability, Accessibility and Security It was also indicate that banking customers have a moderate awareness towards Digital Financial transaction payment gateways. The study has indicated that there exists a substantial number of new users of Digital transaction gateways and it also has a good retention rate as there exists a huge existing customer base. This paper enables future studies to expand their knowledge on Digital financial transaction gateways and its relation with economic growth along with explore the differences among various socio-economic groups in the State of Sikkim.*

**Keywords:** *Banking Customers, Digital Financial Transaction, Digital India, Sikkim.*

## INTRODUCTION

Fintech, or financial technology, is the term used to describe any technology that delivers financial services through software, such as online banking, mobile payment apps or even cryptocurrency. (U.S Chamber of Commerce). Digital Banking falls within the scope of Fintech it signifies the banking which takes places with the help of Digital mode It is therefore also termed as E-Banking which is Electronic Banking. Digital payment in India has been growing rapidly in recent years through various government schemes, technological progress and increasing number of smartphone users. In the FY 2023-24 the volume of digital transaction was valued at 18592 Cr with the compound annual growth rate of 44% (cashless India)[1]. There are various Fintech payment gateways in India namely such as Unstructured supplementary service data (USSD) which facilitates payment using simple mobile by using *99# in their mobile number pad one can make payment up to Rs. 5000 without requiring internet service. Aadhar enabled payment system (AEPS) have proven to be a game changer in areas with less bank branches and areas with low financial literacy AEPS uses Aadhar card as identification tool and its online data base for verifying the account details of banking customers and it provides services like cash deposit, balance enquiry and transfer of fund. Among all Fintech Instruments Unified Payment Interface (UPI) has been the most influential as it integrates multiple bank accounts into a UPI ID which then facilitates payments between various UPI ID and also allows merchant payments. The official launch of UPI for public was on 11th April 2016 by Dr. Raghuram G Rajan, Governor, RBI at Mumbai and currently there are 632 banks actively uses UPI (NPCI)[2].The launch of UPI seen exponential growth in India as well as other countries like Bhutan, Singapore, UAE Nepal Sri Lanka, Mauritius and France which emerge India as world largest real time payment market with annual UPI transaction of 131 billion in FY 2023-2024 with 57% increase compared to previous year(PIB report)[3].

## OBJECTIVES OF STUDY:

- To identify the factors affecting the adoption of Fintech payment gateways among banking customers in the state of Sikkim.
- To measure the awareness level of banking customers with regard to Fintech payment gateways.
- To identify the relationship among various socio-economic variables and awareness of Fintech payment gateways.

## HYPOTHESIS OF STUDY:

- H01: There is no significant difference in the awareness of Fintech payment gateways between male and female respondents
- H02: There is no significant difference in awareness of Fintech payment gateways among different educational groups
- H03: There is no significant difference in awareness of Fintech payment gateways among different income groups.
- H04: There is no significant difference in awareness of Fintech payment gateways on the basis of Duration of Use of UPI.
- H05: There is no significant difference in awareness of Fintech payment gateways on the basis of Volume of Transaction.
- H06: There is no significant difference in awareness of Fintech payment gateways between various districts.

## RESEARCH METHODOLOGY

This Paper is descriptive and analytical in nature. Self-structured questionnaire was prepared with the help of credible literature survey. The questionnaire included two parts. First part encompassed demographic questions and respondent profile and the second part comprised of questions related to various aspects of Fintech payment adoption and awareness with regard to Fintech payment gateways. Pilot testing was then conducted among 50 banking customers to check the reliability of the questionnaire with help of Cron Bach's alpha. Convivence sampling was used for the study and 200 samples were collected for the purpose of the study. For the purpose of analysis of data, SPSS was used to conduct factor analysis of 25 variables affecting the adoption of Fintech payment gateways. Hypothesis testing was conducted using Chi square to check the significance of various socio-economic variables such as Location, Age, Income, Educational Qualification, Duration of Use, Gender and Volume on awareness of Fintech payment gateways.

## LITERATURE REVIEW:

**(Khera, 2021)** they conducted the study in 52 different countries on their payment data ranging from 2014 to 2017 their main findings highlighted that Findex has been one of the key contributors towards improving financial inclusion not only that Findex has also led to some level of poverty alleviation as well as reduction in income disparity they found out there is variation depending on different countries and the most impact of index on financial I inclusion can be found on African and Asian countries.

**Jha, R. R. et.al (2021)** they aimed to understand the perception of banking customers towards adoption of UPI payment. They found that Performance expectancy, effort expectancy, facilitating conditions (Mobile specs & Network strength), and Cashbacks & Rewards have significant role with behavioral intention to those who want to adopt UPI payments.

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[1] http://cashlessindia.gov.in/digital_payment_methods.html

[2] https://www.npci.org.in/what-we-do/upi/product-overview

[3]https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2057013#:~:text=The%20value%20of%20UPI%20transactions,impressive%20%E2%82%B9101%20lakh%20crore.

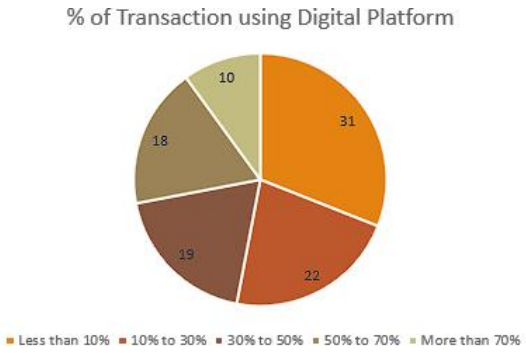
**Sreeshavittala, D. (2024)** stated that UPI adoption brings convenience to all the section of society and especially to retailers as UPI is an indigenous technology which is further expanding in other countries like Bhutan and other south Asian countries this brings innovation in digital financing. They used UTAUT model to identify factors which encourages the adoption of UPI in Ballari district of Karnataka and they concluded that the performance expectancy, facilitating conditions, social influence and effort expectancy have more affects among observed variables.
**Sohail, Shanmugham (2003)** They seek to understand the customer preference and the outlook of the customer with regard to E-banking in Malaysia. They also seek to understand the determinants and factors which has an influence in the customers adoption of Electronic banking. In the study they found that age and educational qualification had no significant influence in the perception of electronic banking among the customers, however it was also found the lower the age of the respondents the more likely he is to adopt E-banking and also that higher literacy leads to higher adoption and more affluent people have adopted Electronic banking more than the less affluent customers. They have found that the major factors of adoption of e-banking are Awareness, Internet accessibility, attitude towards change, the level of trust the banking system, security concerns, ease of use and convenience of E-banking tools

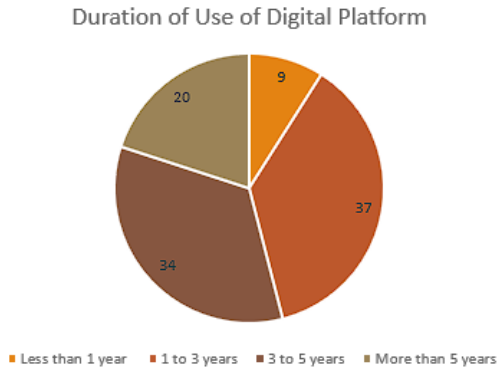
| **Socio-Economic profile of respondents** | | | | | |
|---|---|---|---|---|---|
| **Variables** | **Sub-Variables** | **No. of Respondents (200)** | **Variables** | **Sub-Variables** | **No. of Respondents (200)** |
| **Gender** | Male | 124 | **Income** | 10000-20000 | 51 |
| | Female | 76 | | 20001-30000 | 34 |
| **Age** | 20-30 | 77 | | 30001-40000 | 21 |
| | 31-40 | 34 | | 40001-50000 | 31 |
| | 41-50 | 35 | | 51k - 60k | 14 |
| | 51=60 | 33 | | 61k - 70k | 20 |
| | 61 and above | 21 | | 70k - 80k | 9 |
| **Marital Status** | Married | 105 | | 81k and above | 20 |
| | Unmarried | 95 | **Location** | Rural | 110 |
| **Education Level** | Primary Level Education | 35 | | Urban | 90 |
| | M.E Educated | 13 | **Districts** | Gangtok | 48 |
| | H.S. Educated | 35 | | Pakyong | 18 |
| | Graduation | 67 | | Mangan | 14 |
| | Post Graduation and Above | 50 | | Namchi | 57 |
| **Occupation** | Private | 90 | | Soreng | 39 |
| | Government | 110 | | Gyalshing | 24 |

Field Study, 2024

**Gender:** Majority of the respondents are males as it constitute of around 62% of the total sample whereas the rest was constituted by female banking customer.
**Age:** The largest age group is 20–30 years (77 respondents, 38.5%), indicating a young demographic. Other significant age groups include 41–50 years (35 respondents, 17.5%) and 51–60 years (33 respondents, 16.5%). The older age group 61 and above (21 respondents, 10.5%) has the lowest representation.
**Marital Status:** Married respondents (105) account for 52.5%, slightly outnumbering the unmarried respondents (95, 47.5**%**).
**Education Level:** Graduation (67 respondents, 33.5%) is the most common education level, followed by Post Graduation and Above (50 respondents, 25%). A smaller percentage have Primary Level Education (35, 17.5%) or Middle Education (13, 6.5%).
**Occupation:** Government employees (110) make up 55%, while private sector employees (90) constitute 45%, showing a preference for stable, government employment.
**Income Levels:** A large proportion earn within the 10,000–20,000 range (51 respondents, 25.5%), followed by the 40,001–50,000 range (31, 15.5%). Respondents in the highest income bracket (81,000 and above) are relatively fewer (20 respondents, 10%).
**Location:** Most respondents reside in rural areas (110, 55%), with urban residents (90, 45%) slightly lower in representation.
**District:** The largest group comes from Namchi (57 respondents, 28.5%), followed by Gangtok (48, 24%). Districts like Pakyong (18, 9%) and Mangan (14, 7%) have the lowest representation.

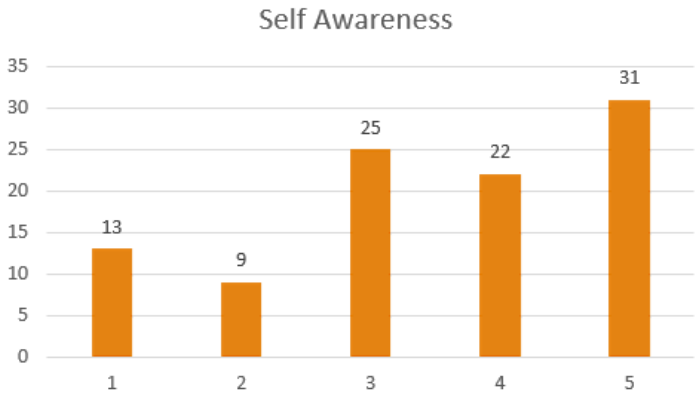
**FINTECH PROFILE OF RESPONDENTS**
A significant portion (31% out of the total) falls in the "Less than 10%" category which shows low trust in Digital Platform with regard to transaction volume.
It also showcases the higher trust in cash and other source of payment with regard to high volume transactions
The largest group of Digital Platform users falls into the 1 to 3 years category (37%), followed by 3 to 5 years (34%), indicating that Digital platform has gained significant traction in the recent past.
While 9% of users are relatively new (less than 1 year), 20% have been using Digital Platform for more than 5 years, showcasing a balance between adoption by new users and retention of long-term users.




**AWARENESS OF FINTECH PAYMENT GATEWAYS**

For the purpose of measuring the awareness of banking customers with regard to Fintech payment gateways awareness was measured with help of 2 distinct sections. Firstly, level of awareness was calculated where banking customers were presented with the 10 basic and intermediate level questions on Fintech payment gateways and then awareness scores were calculated of the respondents which indicated the overall awareness level of banking customers with regard Fintech payment gateways. Secondly familiarity and awanress scores of banking customers were collected with regard to various Fintech payment gateways such as UPI, Neo banks, Debit/credit cards, AEPS etc.,




| Level of Awareness | |
|---|---|
| **Questions** | **Awareness** |
| **Q1** | 50 |
| **Q2** | 81.25 |
| **Q3** | 75 |
| **Q4** | 25 |
| **Q5** | 68.75 |
| **Q6** | 56.25 |
| **Q7** | 68.75 |
| **Q8** | 25 |
| **Q9** | 93.75 |
| **Q10** | 43.75 |
| **Average Awareness** | 58.75 |

To access the level of awareness among respondents, a series of 10 closed ended questions comprising of 5 basic questions and 5 intermediate level questions regarding the various workings, nature and platforms of Fintech was asked to the respondents.

The average awareness among the respondents was 58.75% among which the highest was 93.75 and lowest was 25% correct responses. It was also found that respondents scored well on basic questions scoring an average of 73.75% correct responses and when it comes to moderate to difficult questions the average score dropped out to 43.75% correct responses. When respondents were asked to rate their own scores with regard to their awareness of Fintech it was noted that more than 50% of the sample respondents had high perception of awareness and 22% had a negative perception and lastly about 25% had ambiguous responses.

It can be analyzed that respondents have a moderate awareness with regard to Fintech. It was found that they are well aware of basic digital payment workings whereas they have low awareness on technical basis of Fintech.

**AWARENESS LEVEL OF VARIOUS PAYMENT GATEWAYS AMONG BANKING CUSTOMERS**

The banking customers were asked to rate their level of awareness of various Fintech Instruments from a Not aware at all to very aware with help of these section one can make out the summary of awareness of various fintech payment gateways amongst banking customers.

**Neo Banks**

When it comes to neo banks majority of respondents i.e 67% indicated an awareness level of 2 which is considerable low. Subsequently 19% of respondents have indicated average awareness. Whereas only 14% have good level of awareness. Hence, we can say that the respondent has less awareness when it comes to neo banks.

**Internet Banking**

When it comes to internet banking majority of respondents i.e 62% of respondents indicated good awareness level. Subsequently 18% have average level of awareness. Whereas only 20% of the respondents have low awareness level. Hence, we can say that the majority of respondent have good awareness when it comes to internet banking.

**Mobile Banking**

When it comes to mobile banking majority of respondents i.e 56% of respondents indicated good awareness level. Subsequently 28% have average level of awareness. Whereas only 16% of the respondents have low awareness level. Hence, we can say that the majority of respondent have good awareness when it comes to mobile banking.

**Point of Sale (POS)**

When it comes to point of sale (PoS) majority of respondents i.e 51% of respondents indicated low awareness level. Subsequently 17% have average level of awareness level. Whereas only 32% of the respondents have high awareness level. Hence, we can say that the majority of respondent have less awareness when it comes to point of sale (PoS).

**Mobile Wallet (Paytm, G Pay, PhonePe)**

When it comes to Paytm, GPay, PhonePe majority of respondents i.e 61% indicated an awareness level of 4 which is considerably high. Subsequently 11% have average level of awareness level. Whereas 28% of the respondents have low awareness level. Hence, we can say that the majority of respondent have high awareness when it comes to Paytm, G pay, Phone Pe.

**Aadhar Enabled Payment System (AEPS)**

When it comes to Aadhar enabled payment system (AEPS) 45% of respondents indicated low awareness level. Subsequently 31% have average level of awareness level of 3. Whereas only 24% of the respondents have high awareness level. Hence, we can say that the majority of respondent have low awareness when it comes to Aadhar enabled payment system (AEPS).

**Debit Cards**

When it comes to Debit Card 51% of respondents indicated high awareness level. Subsequently 27% have average level of awareness level. Whereas only 22% of the respondents have low awareness level. Hence, we can say that the majority of respondent have high awareness when it comes to Debit cards.

**Credit Cards**

When it comes to Credit Card 39% of respondents indicated low awareness level. Subsequently 25% have average level of awareness level. Whereas 36% of the respondents have low awareness level. Hence, we can say that the majority of respondent have low awareness when it comes to Credit cards.

**Unified Payment Interface (UPI).**

When it comes to unified Payment interface majority i.e 53% of respondents indicated high awareness level. Subsequently 19% have average level of awareness level. Whereas 28% of the respondents have low awareness level. Hence, we can say that the majority of respondent have high awareness when it comes to Unified Payment Interface (UPI).

**HYPOTHESIS TESTING**

For the purpose of the study to find association among socio-economic variables and awareness of Fintech payment gateways Chi-square test of Association was used to check the significance. Socio-economic variables such as Location, Age, Income, Educational Qualification, Duration of Use, Gender and Volume were considered and hypothesis were constructed for the study.

| Test Variables | Value | d.f | p value | Significance level | Remarks |
|---|---|---|---|---|---|
| **Location** | 4.22 | 4 | 0.377 | 0.05 | Failed to reject null hypothesis |
| **Age** | 17.73 | 20 | 0.674 | 0.05 | Failed to reject null hypothesis |
| **Income** | 47.16 | 30 | 0.024 | 0.05 | Reject null hypothesis |
| **Educational Qualification** | 26.51 | 16 | 0.047 | 0.05 | Reject null hypothesis |
| **Duration of Use** | 19.35 | 12 | 0.8 | 0.05 | Failed to reject null hypothesis |
| **Gender** | 7.58 | 4 | 0.108 | 0.05 | Failed to reject null hypothesis |
| **Volume** | 1.98 | 4 | 0.739 | 0.05 | Failed to reject null hypothesis |

**H01:** There is no significant difference in the awareness of Fintech payment gateways between male and female respondents

With the help of chi square analysis, it can be noted that gender does not play a significant role when it comes to awareness of fintech payment gateways as the p value (0.108) is higher than the significance level of 0.05 hence we failed to reject null hypothesis

**H02:** There is no significant difference in awareness of Fintech payment gateways among different educational groups

When the test of significance was conducted to analyse the relationship between various educational groups and awareness of fintech payment gateway the relationship was found to be Significant as the p-value (0.047) is lower than the significance level of 0.05. Therefore, it can be said that educational qualification has a significant impact when it comes to the awareness of fintech payment gateways Hence we accept the null hypothesis.

**H03:** There is no significant difference in awareness of Fintech payment gateways among different income groups

Comparing various Income groups and Awareness of Fintech payment gateways it was found that Income played a significant role when it comes to awareness as the P value (0.024) which lower than the significance level of 0.05. Hence, we accept the null hypothesis.

**H04:** There is no significant difference in awareness of Fintech payment gateways on the basis of Duration of Use of UPI.

With the help of chi square analysis, it can be noted that Duration of Use of Fintech Services does not play a significant role when it comes to awareness of fintech payment gateways as the p value (0.8) is higher than the significance level of 0.05 hence we failed to reject null hypothesis

**H05:** There is no significant difference in awareness of Fintech payment gateways on the basis of Volume of Transaction.

Volume of transaction did not significantly impact the awareness of Fintech Payment Systems as the P value (0.739) is higher than the significance level of 0.05. Hence, we have failed to reject the null hypothesis.

**H06:** There is no significant difference in awareness of Fintech payment gateways between various districts.

Comparing various Districts of Sikkim and Awareness of Fintech payment gateways it was found that District did not play a significant role when it comes to awareness as the P value (0.377) which is higher than the significance level of 0.05. Hence, we failed to reject the null hypothesis.

**FACTORS AFFECTING THE ADOPTION OF FINTECH PAYMENT GATEWAYS.**

In order to determine the factorability of the matrix as a whole, Bartlett's test of Sphericity and the Kaiser-Meyer-Olkin measure of sampling adequacy is used in the study. Results indicate that measure of sampling adequacy in KMO is 0.887 which is considered to be favorable as it is higher than the suggested 0.5 leveland Bartlett's test of Sphericity indicate a significant value($p<0.05$), therefore, on the basis of these tests, factor analysis statistical tool is favorable this paper.

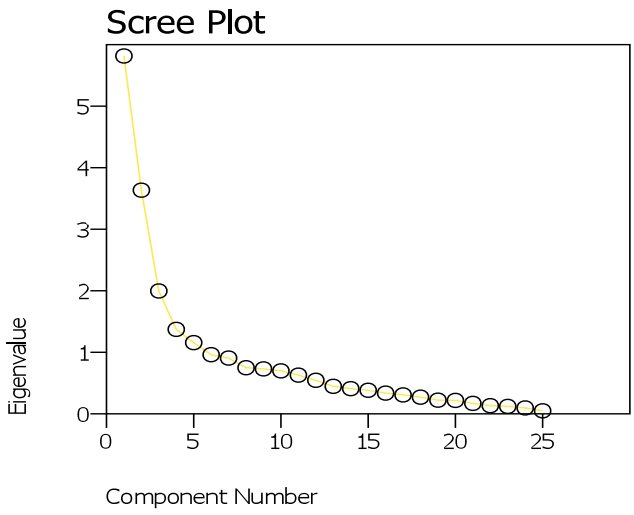
| KMO and Bartlett's Test | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .887 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 1831.819 |
| | df | 190 |

**Total Variance Explained**

| | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | % of Variance- | Cumulative % | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 5.82 | 26.0% | 26.0% | 5.82 | 26.0% | 26.0% | 4.80 | 21.4% | 21.4% |
| 2 | 3.63 | 16.3% | 42.3% | 3.63 | 16.3% | 42.3% | 3.78 | 16.9% | 38.4% |
| 3 | 2.00 | 8.9% | 51.2% | 2.00 | 8.9% | 51.2% | 2.48 | 11.1% | 49.5% |
| 4 | 1.37 | 6.1% | 57.3% | 1.37 | 6.1% | 57.3% | 1.52 | 6.8% | 56.2% |
| 5 | 1.16 | 5.2% | 62.5% | 1.16 | 5.2% | 62.5% | 1.40 | 6.3% | 62.5% |
| 6 | .96 | 4.3% | 66.8% | | | | | | |
| 7 | .91 | 4.1% | 70.9% | | | | | | |
| 8 | .75 | 3.4% | 74.2% | | | | | | |
| 9 | .73 | 3.3% | 77.5% | | | | | | |
| 10 | .70 | 3.1% | 80.6% | | | | | | |
| 11 | .63 | 2.8% | 83.4% | | | | | | |
| 12 | .54 | 2.4% | 85.9% | | | | | | |
| 13 | .45 | 2.0% | 87.9% | | | | | | |
| 14 | .41 | 1.8% | 89.7% | | | | | | |
| 15 | .38 | 1.7% | 91.4% | | | | | | |
| 16 | .34 | 1.5% | 92.9% | | | | | | |
| 17 | .31 | 1.4% | 94.3% | | | | | | |
| 18 | .27 | 1.2% | 95.5% | | | | | | |
| 19 | .22 | 1.0% | 96.5% | | | | | | |
| 20 | .22 | 1.0% | 97.5% | | | | | | |
| 21 | .17 | .8% | 98.2% | | | | | | |
| 22 | .13 | .6% | 98.8% | | | | | | |
| 23 | .12 | .5% | 99.4% | | | | | | |
| 24 | .10 | .4% | 99.8% | | | | | | |
| 25 | .05 | .2% | 100.0% | | | | | | |

Total variance explained summarizes the total amount of variance explained by the extracted factors and it also gives clear indications with regard to useful factors to consider. In accordance to the total variance explained it can be clearly seen that there are 5 factors with Eigen values more than 1 therefore can be considered for the purpose of the study.
Factor 1 is represented with Eigen Value 5.82 having the variance of 26%
Factor 2 is represented with Eigen Value 3.63 having the variance of 16.3%
Factor 3 is represented with Eigen Value 2.00 having the variance of 8.9%
Factor 4 is represented with Eigen Value 1.37 having the variance of 6.1%
Factor 5 is represented with Eigen Value 1.16 having the variance of 5.2%

Cumulative variance of all five factors is 62.5% which can be explained by these five factors which is considered valid as the acceptable range is above 60% therefore the factor analysis model can be considered fit.




Scree Plot visualizes the factors which have Eigen Values greater than 1 which constitutes to only 5 factors. We have taken five components that are the "strong factors" having a more influence on the adoption of banking customers towards Fintech payment gateways. As most part of the total variability in the data is given in first four principal components it confirms the validity of the analysis.

**Rotated Component Matrix**
With the help of rotated component matrix it can be analysed that there are 5 major affecting factors among 25 variables which affect the adoption of Fintech payment gateways among banking customers of Sikkim.

| Rotated Factor Analysis | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| **PU1** | 0.86 | | | | |
| **PU2** | 0.64 | | | | |
| **PU3** | 0.58 | | | | |
| **PU4** | 0.65 | | | | |
| **PU5** | 0.68 | | | | |
| **PU6** | 0.74 | | | | |
| **PU7** | 0.67 | | | | |
| **PU8** | 0.62 | | | | |
| **PU9** | 0.52 | | | | |
| **PU10** | 0.57 | | | | |
| **PU11** | 0.48 | | | | |
| **PU12** | 0.45 | | | | |
| **RE1** | | 0.64 | | | |
| **RE2** | | 0.93 | | | |
| **RE3** | | 0.68 | | | |
| **RE4** | | 0.78 | | | |
| **RE5** | | 0.60 | | | |
| **DI1** | | | 0.44 | | |
| **DI2** | | | 0.52 | | |
| **DI3** | | | 0.93 | | |
| **DI4** | | | 0.54 | | |
| **AC1** | | | | 0.55 | |
| **AC2** | | | | 0.93 | |
| **SY1** | | | | | 0.62 |
| **SY2** | | | | | 0.69 |

- **Perceived Usefulness:**

This factor is the culmination of the Utility that users draw from using UPI. The degree to which users believe UPI enhances their efficiency and simplifies transactions influences adoption. Literature such as Yadav et.al. (2024) ; Gupta et.al. (2023) ; Singh, Sharma (2021) have also indicated that perceived usefulness plays a role in adoption.

- **Reliability:**

This factor indicates the trust and fraud protection aspect of UPI. Users are more likely to use UPI if they feel their financial information is secure and their transactions are reliable. Khan,Verma(2022) ; Mehta patel(2023); Singh, Sharma (2021) have concluded reliability as a factor affecting adoption.

- **Digital Infrastructure:**

Digital Infrastructure refers to the Access to smartphones, stable internet connectivity, and technical support which supports UPI adoption. It is often the case that areas with higher infrastructural farcicalities will lead to better adoption. Bhattacharya,Roy(2023); Gupta et.al(2023); Roa,Shanker(2021) have also indicated that infrastrucrtre has a major factor affecting adoption.

- **Accessibility:**

It refers to ease of accessing UPI services through various platforms, such as mobile apps and web portals, plays a key role in adoption. The availability of merchant accepting UPI payments also plays a vital role in the adoption of UPI

- **Security:**

Robust security measures, such as encryption, two-factor authentication, and fraud detection, are critical for adoption. Users Need assurance that their transactions are secure and their data is safe. Verma,Singh (2023); Sharma, Jain(2022) have also indicated security as a factor affecting adoption.

## CONCLUSION

Fintech services in Sikkim is still on a rise as there is a huge number of new users being added into the ecosystem in the past one year which signifies the huge potential of Fintech in Sikkim. However, there is still a reluctance to use Fintech services when it comes to huge transaction value where cash is still being preferred. It was also found that there is a moderate awareness level of Fintech among various banking customers of Sikkim as they scored average of 53% awareness score although they rated their own perception to be quite high compared to the calculated awareness. It was found that there are 5 factors affecting the adoption of Fintech payment gateways among banking customers of Sikkim Namely: Perceived Usefulness (12 items), Digital Infrastructure (4 items), Reliability (5 items), Accessibility (2 items) and Security (2 items). These factors can be considered as focal points for attention in order to increase the adoption of Fintech within the state of Sikkim. Hypothesis testing between socio economic variables and awareness of UPI showcases that only income and educational qualification impacted the awareness of Fintech and other socio-economic variables were not significant to Fintech adoption. The study also concludes that among all Fintech payment gateways Neo Banks and AEPS were the least aware tools whereas Mobile banking and UPI were the most aware tools among banking customers of Sikkim. In order to boost the adoption of Fintech services in Sikkim it is necessary to develop usefulness of Fintech services within the banking customers by informing the advantages and usages of Fintech services to the masses of Sikkim. It is necessary to develop the Digital Infrastructure within the rural landscape of the state to enhance adoption. Specified workshops and training programs should be put in place to ensure that there is high awareness of Fintech among the masses to Sikkim in order to build trust and improve security and risk concerns.

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