



A Study on the Impact of Digital Payment System Followed by Bank with Special Reference to Indian Bank

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ABSTRACT:

The research investigates the impact of digital payment on the adoption of digital payment banking practices among Indian Bank employees and their customer Satisfaction. It utilizes a combination of primary and secondary data collection methods, revealing a significant correlation between digital payment systems and customer satisfaction as well as the adoption of digital banking practices. The findings suggest that promoting digital payment systems can improve customer satisfaction and expand financial access for users.

INTRODUCTION:

In today's business world, the increasing use of digital payment methods has caused a significant change in how physical money is used. Instead of relying on cash, people are turning more and more to digital payment systems, which offer convenience and speed, especially during the COVID-19 pandemic when contactless payments are seen as clean and efficient. The widespread use of smart devices like smartphones, laptops, computers, wearables, and even household appliances has made digital transactions seamless due to their internet connectivity. Technological advancements have also improved the ease of money transfers and the popularity of automated monthly subscription services that deduct funds from users' accounts. Additionally, the rise of cryptocurrencies as a new form of money has captured the interest of certain groups. While these advancements provide greater convenience, it's important to consider their environmental impact and ensure that people understand how to use them. These developments show the interconnected evolution of technology, commerce, and society.

REVIEW OF LITERATURE:

- 1) **DR. INDRAJITSINHA**, (2014) in his Study on Technology Acceptance Model. This study to find out the factors which are strengthening the e-payment system the factors are innovation, incentives and legal framework and customer convenience
- 2) **SANGHITA ROY**, (2014) in her research "A study on sudden surge in the usage Internet banking". Discussed in their paper that in India there has been a sudden surge in the usage of digitalization payment. But still there is almost 90% transactions which are done through paper currency.
- 3) **BEZHOVSKI** (2016) in his research , A study on Internet and e-commerce has opened the gateway for Digital payment): Has examined how Internet and e-commerce has opened the gateway for digital payment system well the increment in technology people are adopting the new means of payment system and how they will be benefited and is there any pitfall of using it
- 4) **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.
- 5) **ROSHNA THOMAS, DR.ABHILJEET CHATTERJEE** (2017) in their research on "A study on compatible payment and innovative payment tool". The study reported that UPI is a tool with compatible features that can make monetary transactions easy and affordable to the customers through it is difficult to sideline the challenge.

- 6) **RAVISH RANA** (2017) in his research on "A study that adoption of digital payment is influenced by the education level of the customer". In their study reported the possibility of acceptance of digital payment is much higher. The growth of Smartphone users and internet penetration in such areas also facilitated the adoption of digital payment.

OBJECTIVE OF THE STUDY:

- To examine the age of respondents of the impact of digital payments.
- To analyse the impact of customers education on the usage of digital payments.
- To analyse how digital payments are changing the way people use traditional banks.
- To assess the overall impact of digital payments in banks operation.

LIMITATION OF THE STUDY:

- ❖ Collecting confidential data from bankers poses challenges due to privacy concerns and the need to protect sensitive employee perspective information.
- ❖ Engaging with employees for questionnaire surveys presents challenges due to limited access, and potential time constraints, impacting response rates.

ORGANISATION PROFILE

The Indian Bank, established in 1907 during India's Swadeshi Movement, played a pivotal role in the country's economic development. Under the leadership of V. Krishnaswamy Iyer, a prominent lawyer and Indian nationalist, the bank, initially known as the "Madras Native Bank," commenced operations with an authorized capital of Rs. 50 lakhs in the city of Chennai (formerly known as Madras). It initially focused on financing key industries and projects, later broadening its services to include diverse customer needs such as retail banking, corporate banking, international banking, and wealth management. The bank has also embraced digital banking and other technological innovations to provide convenient and efficient banking solutions to its customers. Today, Indian Bank stands as a trusted financial institution with a strong nationwide presence, continuing its commitment to providing financial support and services to individuals, businesses, and the economy as a whole. Its history is deeply intertwined with India's struggle for independence and subsequent economic development, growing from its modest beginnings in 1907 to become a prominent public sector bank contributing to the nation's growth and prosperity.

Research Methodology

The study on the impact of digital payment systems on customer satisfaction and the adoption of digital banking practices among Indian Bank employees utilized a mixed-methods approach in its research methodology. This approach involved the combination of primary and secondary data collection methods to gain comprehensive insights.

Primary data was obtained through a questionnaire survey administered to Indian Bank employees, while secondary data was gathered from various sources. The study utilized statistical tools for data analysis and employed convenience sampling for participant selection, resulting in a sample size of 90 individuals. However, the study did face limitations, including challenges in collecting confidential data and engaging employees for questionnaire surveys.

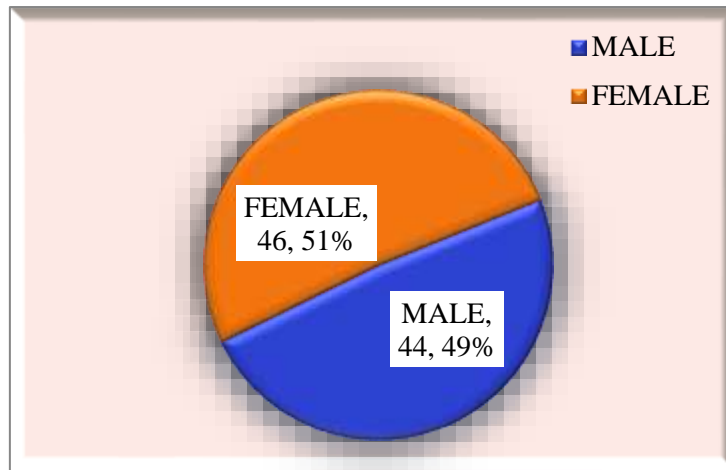
Data analysis & Interpretation

ANALYSIS AND INTERPRETATION OF DATA TABLE

TABLE NO.:1 GENDER WISE CLASSIFICATION

GENDER	NO. OF RESPONDENTS	% OF RESPONDENTS
MALE	44	49%
FEMALE	46	51%
TOTAL	90	100%

CHART NO: 4.1

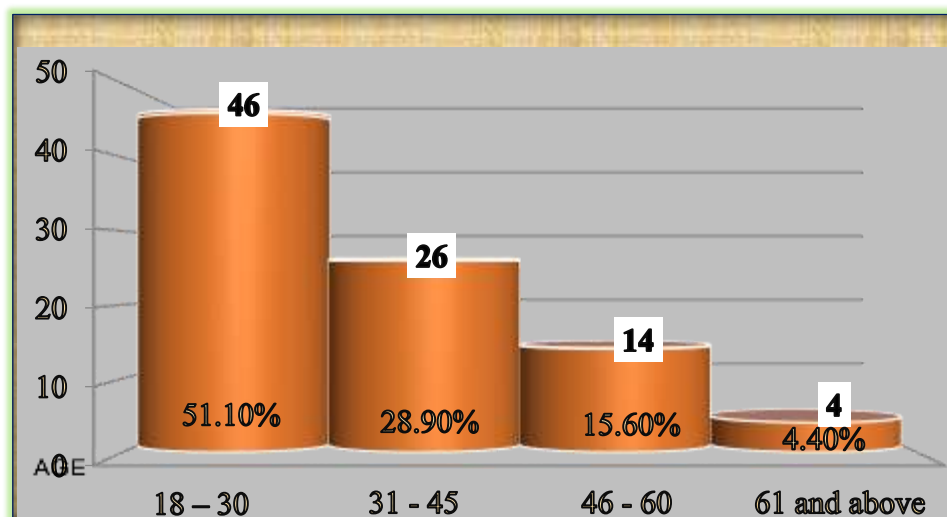
**INTERPRETATION:**

From the above analysis (51%) of respondents are female and (49%) of respondents are male.

INFERENCE: The majority of the respondents, comprising 51% are female.

TABLE NO.: 2 CLASSIFICATIONS ACCORDING TO AGE WISE.

AGE	NO. OF RESPONDENTS	% OF RESPONDENTS
18 – 30	46	51%
31 - 45	26	29%
46 - 60	14	16%
61 and above	4	4%
TOTAL	90	100%

CHART NO: 4.2**INTERPRETATION:**

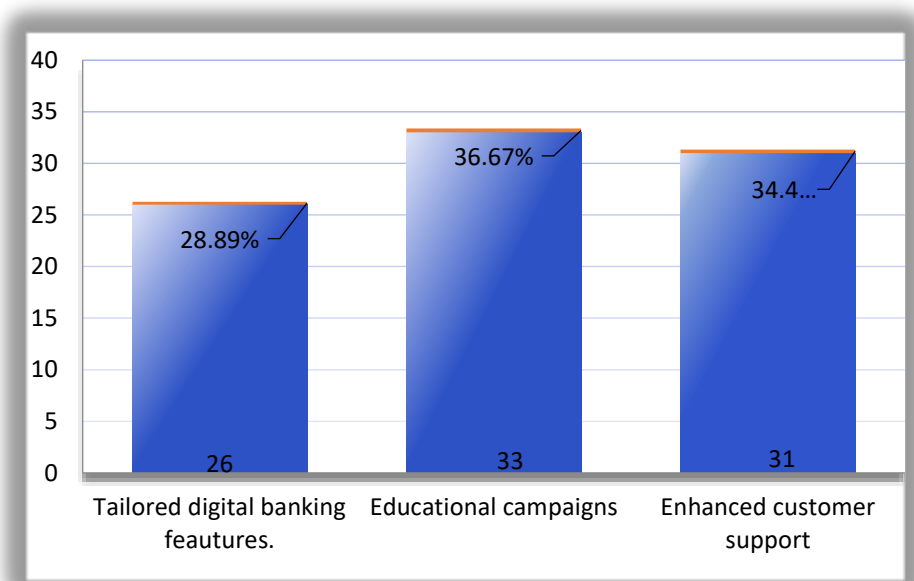
From the above analysis (51%) of the respondents are from the age group of 18-30, (21.2%) are from 31-45, (29%) are from 46-60, (16%) and (4%) are from 61 and above.

INFERENCE:

The majority of respondents, comprising 51%, fall within the age range of 18-30.

TABLE NO.: 3 THE BANKS CATER TO THE NEEDS OF DIFFERENT AGE GROUPS IN DIGITAL PAYMENTS.

PARTICULARS	NO. OF RESPONDENTS	% OF RESPONDENTS
Tailored digital banking features.	26	29%
Educational campaigns	33	37%
Enhanced customer support	31	34%
Total	90	100%

CHART NO: 4.3**INTERPRETATION:**

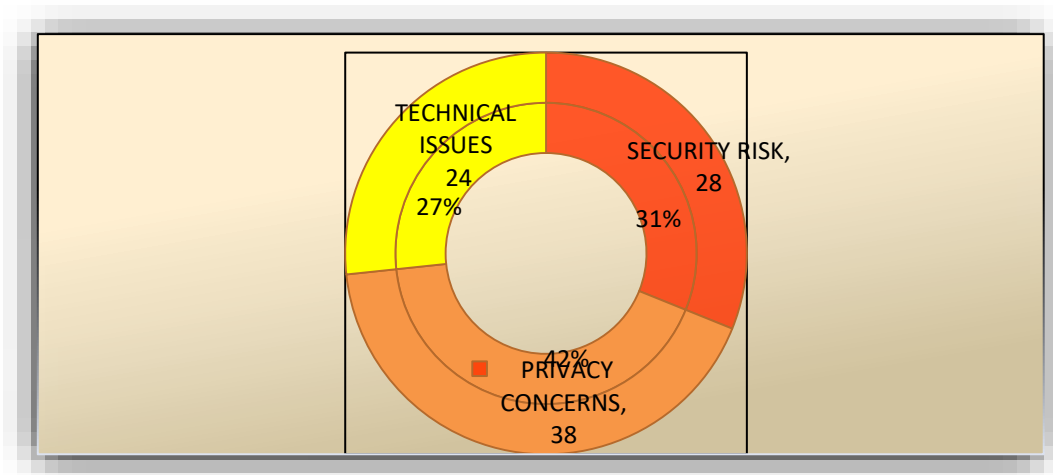
From the above analysis (37%) of the respondents are educational campaigns, (34%) are from Enhanced customer support, (29%) are from tailored digital banking features.

INFERENCE: The analysis indicates that educational campaigns and enhanced customer support are the predominant factors driving customer engagement.

TABLE NO.:4 THE CONCERNS DO DIFFERENT AGE GROUPS HAVE REGARDING DIGITAL PAYMENTS

PARTICULARS	NO. OF RESPONDENTS	% OF RESPONDENTS
SECURITY RISK	28	31%
PRIVACY CONCERNS	38	42%
TECHNICAL ISSUES	24	27%
TOTAL	90	100%

CHART NO: 4.4



INTERPRETATION:

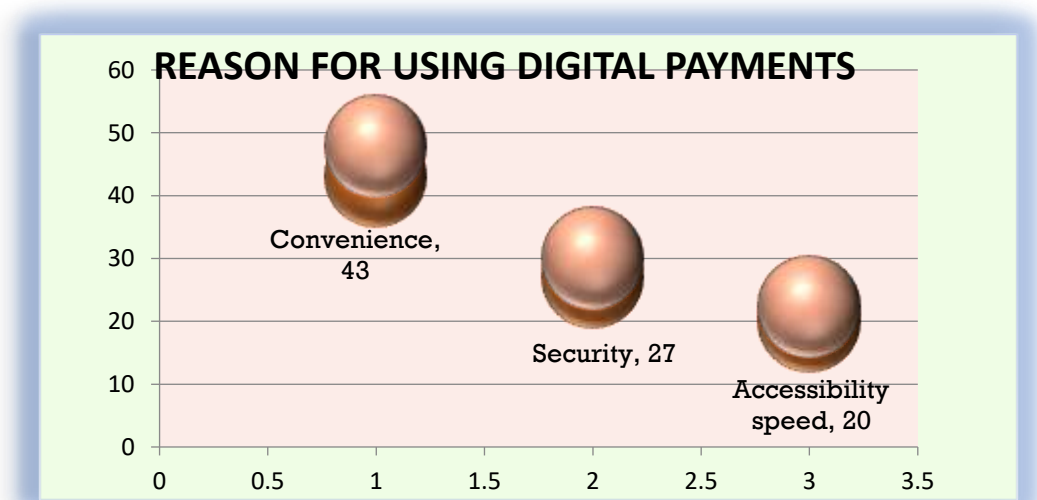
From the following analysis, security risk is being 31% of the total, 42% of respondents are for Privacy concerns and 27% of the respondents are for technical issues

INFERENCE: 42% of the respondents opted for the privacy concerns, constituting the majority.

TABLE NO.:5 THE MAIN REASONS FOR USING DIGITAL PAYMENTS AMONG DIFFERENT AGE GROUPS

PARTICULARS	NO. OF RESPONDENTS	% OF RESPONDENTS
Convenience	43	48%
Security	27	30%
Accessibility speed	20	22%
TOTAL	90	100%

CHART NO: 4.5



INTERPRETATION:

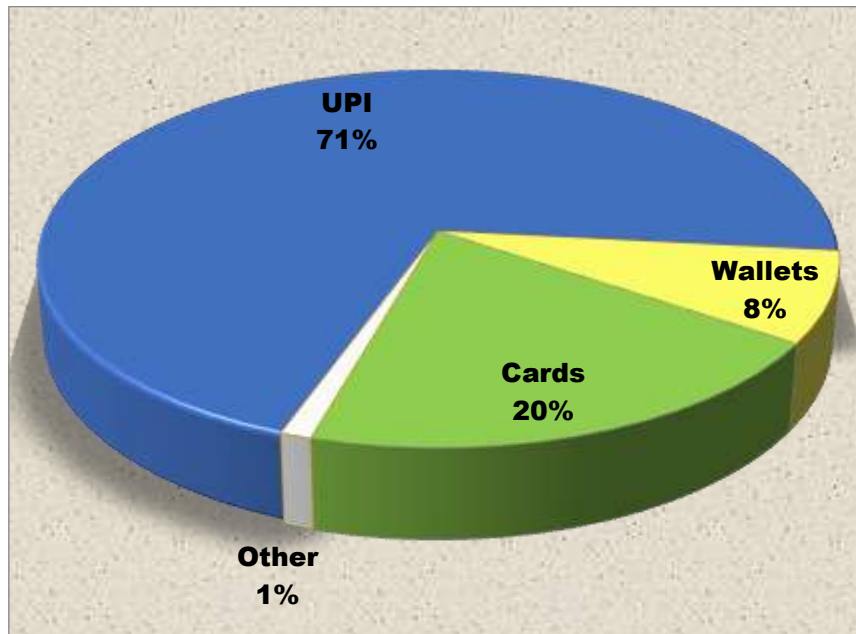
From the above table, (48%) indicating that a significant portion of respondents prioritize convenience when making transactions, (30%) of respondents prioritize the security of transactions, Accessibility Speed are mentioned by a smaller percentage of respondents at (22%), recommendations.

INFERENCE: Convenience appears to be the most significant factors influencing transaction with (48%).

TABLE NO.:6 THE PREFERENCE OF USING DIGITAL PAYMENTS METHOD BY THE CUSTOMER.

PARTICULARS	NO. OF RESPONDENTS	% OF RESPONDENTS
UPI	64	71%
Wallets	7	8%
Cards	18	20%
Other	1	1%
TOTAL	90	100%

CHART NO: 4.6



INTERPRETATION:

From the above table 71.1 % of the total response respondents used UPI payment, 20% of the total respondents prefer cards for their transaction 7.8 % of correspondence use mobile wallet and 1.1 percentage of the response use other payment option.

INFERENCE: UPI payment is the mostly using method among the respondents with 71.1 %

Chi-square

STEP 1:

CHI-SQUARE: The chi-square test is used to analyse categorical data and determine whether there is a significant association between two categorical variables. It is commonly used to test for independence in contingency tables and to compare observed frequencies with expected frequencies.

AIM: To test whether, the Age of the customers significantly influences individuals' preference for in-person transactions over digital banking.

Null hypothesis (H0): There is no significant relationship between the Age of the customers and individuals' preference for in-person transactions over digital banking.

Alternative hypothesis (H1): There is a significant relationship between the Age of the customers and individuals' preference for in-person transactions over digital banking.

STEP 2:

Particulars/ AGE	8-30	31-45	46-60	60&ABOVE	TOTAL
INCREASED	11	5	2	1	19
REDUCED	24	13	7	1	45
UNCHANGED	11	8	5	2	26
TOTAL:	46	26	14	4	90

STEP 3:

O	E	O-E	(O-E) ²	(O-E) ² /E
11	9.71	1.29	1.67	0.17
5	5.49	0.49	0.24	0.04
2	2.96	0.96	0.92	0.31
1	84	0.16	0.02	0.03
25	23	2	4	0.04
13	13	0	0	0
7	7	0	0	0
1	2	1	1	0.5
11	13.29	2.29	13.29	0.39
8	7.51	0.49	0.24	0.03
5	4.04	0.96	0.92	0.23
2	1.16	0.84	0.7	0.62
CALCULATED VALUE				2.36

Calculated Value: **2.36**

STEP 4:

DEGREE OF FREEDOM:

$$D.F = (R-1) \times (C-1)$$

$$= (3-1) (4-1)$$

$$= 2 \times 3$$

$$= 6$$

Level of Significance: 0.05

Table Value: **12.592**

STEP 5:**INFERENCE:**

Therefore, calculated value is **2.36** is less than the table value **12.592**. So, **accept H₀**.

Hence proved that there is no significant relationship between the ages of the customers significantly influences individuals' preference for in-person transactions over Digital payments.

2.7(b) ii) CORRELATION:

STEP 1:

CORRELATION: Correlation Analysis is statistical method that is used to discover if there is a relationship between two variables/datasets, and how strong that relationship may be.

AIM: To test whether there is correlation, between the adoption of digital payments affected banks transaction volume and the implementation of digital payments influencing banks market reach.

STEP 2:

BANKS TRANSACTION VOLUMES

PARTICULARS	NO. OF RESPONDENTS
Agree	25
Neutral	21
Disagree	44

INFLUENCE OF BANK'S MARKET REACH

PARTICULARS	NO. OF RESPONDENTS
Expanded significantly	28
Expanded moderately	47
No significant change	15

STEP 3:

X	Y	X ²	Y ²	XY
25	28	625	784	700
21	47	441	2209	987
44	15	1936	225	660
90	90	3002	3218	3247

$$\bar{X} = \Sigma X / N$$

$$= 90 / 3$$

$$= 30$$

$$\bar{Y} = \Sigma Y / N$$

$$= 90 / 3$$

$$= 30$$

STEP 4:

$$r = \frac{N \Sigma xy - \Sigma x \Sigma y}{\sqrt{N \Sigma x^2 - (\Sigma x)^2} \sqrt{N \Sigma y^2 - (\Sigma y)^2}}$$

$$r = \frac{3(2347) - 90(90)}{\sqrt{3(3002) - (90)^2} \sqrt{3(3218) - (90)^2}}$$

$$r = \frac{7041 - 8100}{\sqrt{9006 - 8100} \sqrt{9654 - 8100}}$$

$$r = \frac{-1059}{\sqrt{906} \sqrt{1554}}$$

$$r = \frac{-1059}{30.099 \times 39.421}$$

$$r = -1059 \div 1186.53$$

$r = -0.8925$

STEP 5 :

1 indicates a perfect positive correlation, (-1) indicates a perfect negative correlation, and 0 indicates no correlation.

That is, if the correlation coefficient is greater than zero, it is a positive relationship. Conversely, if the value is less than zero, it is a negative relationship.

Therefore, a correlation coefficient of - 0.8925 indicates a negative correlation between the adoption of digital payments affected banks transaction volume and the implementation of digital payments influencing banks market reach.

2.7(b)(iii) REGRESSION

STEP 1:

REGRESSION: Regression analysis is a set of statistical methods used for the estimation of relationships between a dependent variable and one or more independent variables. It can be utilized to assess the strength of the relationship between variables and for modelling the future relationship between them.

AIM: To analyse the relationship between the adoptions of digital payments had on our bank's brand Loyalty and the rise of bank digital payments impacted to customer demographic served by your bank.

STEP 2:

EFFECT HAS THE ADOPTION OF DIGITAL PAYMENTS HAD ON OUR BANK'S BRAND LOYALTY

PARTICULARS	NO. OF RESPONDENTS
Increased brand loyalty	39
Significantly increased brand loyalty	33
Moderately No significant change	14
Decreased brand loyalty moderately	4
TOTAL	90

THE RISE OF BANK DIGITAL PAYMENTS IMPACTED TO CUSTOMER DEMOGRAPHIC SERVED BY YOUR BANK

PARTICULARS	NO. OF RESPONDENTS
Increased engagement with younger demographics	28
Expanded reach to underserved or rural areas	29
Shift in customer preferences towards digital channels	29
Not significant impact on customer demographics	4
TOTAL	90

STEP 3:

X	Y	$x = X - \bar{X}$	$y = Y - \bar{Y}$	x^2	y^2	xy
4	29	-18	7	324	49	-126
39	28	17	6	289	36	102
14	4	-8	-18	64	324	144
33	29	11	7	121	49	77
90	90	2	2	798	458	197

$$\bar{X} = \Sigma X/N$$

$$= 90/4$$

$$= 22$$

$$\bar{Y} = \Sigma Y/N$$

$$= 90/4$$

$$= 22$$

$$b_{xy} = \Sigma xy / \Sigma x^2$$

$$= 197/798$$

$$= 0.246$$

$$b_{yx} = \Sigma yx / \Sigma y^2$$

$$= 197/458$$

$$= 0.4301$$

STEP 4:

Regression equation of X on Y

$$X - \bar{X} = b_{xy} (Y - \bar{Y})$$

$$X - 22 = 0.246 (Y - 22)$$

$$X - 22 = 0.246 Y - 5.412$$

$$X = 0.246 Y - 5.412 + 22$$

$$X = 0.246 Y + 16.58$$

Regression equation of Y on X

$$Y - \bar{Y} = b_{yx} (X - \bar{X})$$

$$Y - 22 = 0.4301 (X - 22)$$

$$Y - 22 = 0.4301 X - 9.4622$$

$$Y = 0.4301 X - 9.4622 + 22$$

$$Y = 0.4301 X + 12.54$$

STEP 5:

$$r = \sqrt{b_{xy} \cdot b_{yx}}$$

$$= \sqrt{0.246 \times 0.4301}$$

$$= \sqrt{0.1058}$$

$$r = 0.325$$

STEP 6:

That is, if the Regression coefficient is greater than zero, it is a positive relationship.

Conversely, if the value is less than zero, it is a negative relationship.

From the above calculation it was noted that the calculated regression value **0.325** was positive.

Therefore there is a the significant relationship the adoption of digital payments had on our bank's brand Loyalty and the rise of bank digital payments impacted to customer demographic served by your bank.

ANALYSIS PLAN:

PERCENTAGE ANALYSIS:

It also known as ratio analysis, is a method used to analyse financial statements and other data

by expressing individual items as a percentage of a base figure. It helps in comparing different

Components of financial statements over time or against competitors.

CHI-SQUARE:

The chi-square test is used to analyse categorical data and determine whether there is a significant association between two categorical variables. It is commonly used to test for

Independence in contingency tables and to compare observed frequencies with expected Frequencies.

CORRELATION:

Correlation Analysis is statistical method that is used to discover if there is a relationship

Between two variables/datasets, and how strong that relationship may be.

REGRESSION:

Regression analysis is a set of statistical methods used for the estimation of relationships between a dependent variable and one or more independent variables. It can be utilized to assess the strength of the relationship between variables and for modelling the future relationship between them.

SUMMARY OF FINDINGS:

- The 18-30 age groups are the most availed users of digital payments.
- Male users and female users were almost equal adoption in digital payments.
- The convenience of accessing banking services anytime anywhere creates major impact.
- Tailored digital banking features are keys to catering to different age groups.
- Security risks are the foremost concern across all age demographics.
- Convenience remains the top motivator for digital payment usage.
- UPI stands out as the preferred digital payment method.
- Digital payments are widely perceived as very easy to handle.
- Traditional banking usage shows minimal change despite digital payment growth.
- In-person transactions have decreased with the rise of digital payments.
- Customers express satisfaction with both digital channels and physical branches.
- Education levels show no significant correlation with digital payment usage.
- Regular email updates and in-app notifications are effective in communicating technological advancements.

RECOMMENDATIONS:

- Tailor digital banking features for different age groups to enhance user experience and engagement.
- Conduct regular security education campaigns to educate customers and build trust in digital payment systems.
- Implement user-friendly interfaces across digital platforms for seamless navigation and transactions.
- Offer 24/7 customer support services to address technical issues and inquiries promptly.
- Innovation by collaborating with fintech partners to develop and introduce new digital payment solutions.
- Strengthen data privacy measures to safeguard customer information and maintain trust.
- Maintain transparent communication channels to keep customers informed about updates and changes in digital payment services.
- Utilize data analytics to personalize services and promotions based on customer preferences and behaviour.
- Expand cross-border payment capabilities to facilitate international transactions and serve global customers.
- Continuously evaluate and improve digital payment offerings to meet evolving customer expectations and industry standards.
- Develop educational campaigns tailored to different age groups to address concerns and promote digital payment adoption.

- Enhance digital interfaces for accessibility and ease of use, especially for older demographics.
- Offer incentives and rewards for using digital payment methods to encourage adoption and usage.
- Invest in advanced security technologies such as biometric authentication to mitigate fraud risks.
- Collaborate with industry regulators and partners to ensure compliance with data privacy and security regulations, promoting customer trust and loyalty.

CONCLUSION

In conclusion, this study highlights the significant impact of digital payment methods from a banker's perspective. The rise of digital payments presents both opportunities and challenges for the banking industry. On one hand, adopting digital payment technology can streamline banking operations, expand customer reach, and enhance personalized services. It also allows banks to serve individuals who previously lacked access to banking services, benefiting both the economy and the bank's financial performance. However, there are also potential drawbacks to consider. Security is a major concern, with the ongoing threat of data breaches and fraud. Banks must invest in robust security measures to protect their customers' information. Additionally, navigating the complex regulations surrounding digital payments can be time-consuming. Keeping up with the latest technology also requires significant investment and expertise. Lastly, educating customers about digital payments and their safe usage is essential for widespread adoption and success. In conclusion, while digital payments offer numerous advantages for banks, they also present risks and challenges. Banks must carefully assess these factors and prioritize investment in security, regulatory compliance, technological advancements, and customer education to fully leverage this new era of banking.

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