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# Customer Perceptions of Bank Frauds: An Analytical Study

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**Abstract**

The Indian banking sector plays a vital role in the Indian economy, serving as a cornerstone for financial transactions, capital allocation, and economic development. However, with the increasing sophistication of financial crimes, banks face significant challenges in safeguarding their assets and maintaining the trust of their account holders and stakeholders. Among these challenges, bank frauds represent a critical threat to the financial stability and reputation of financial institutions worldwide.

This study focuses on investigating explores about the "Customers' Perception on Bank Frauds" provides a comprehensive exploration of the intricate dynamics surrounding bank frauds from the standpoint of customers within the Indian banking sector. As financial transactions become increasingly digitized and complex, the risks of fraudulent activities have also escalated, posing significant challenges to both banks and their clientele. Understanding customers' perceptions, awareness levels on bank operations related frauds , types of bank frauds and reasons for bank frauds is paramount for effectively combating such illicit practices and fostering trust in the banking system.

**Keywords :** Banking Frauds, Customers, Types of frauds, Reasons for frauds

## I. Introductions

Fraud is a worldwide phenomenon that affects all sectors of the economy. It is an act of deceiving illegally in order to make money or obtain goods. Banking industry in India has traversed a long path to assume its present stature. In past few years Indian banking sector is confronted with banking frauds. For a better system, banking sector needs to be prompt in reporting and action. Banking sector frauds is one of the key concerns for the regulator, government and banking industry. Banking business involves risk but with rising frauds, banks must have effective control mechanism. Banks are making huge investments over a period of time on Fraud Risk Management frameworks, systems and controls. It has undergone a major structural transformation after the nationalization of 14 major commercial banks in 1969. During the last four decades of nationalization, there has been phenomenal expansion of branch network, particularly in the hitherto under-banked rural areas besides, a massive qualitative change in the operations of the banking system.

However, the journey has not all along been even and smooth. “There have been hurdles and impediments, stresses and strains but the dynamic fashion in which the banking industry has taken them in strides and surged ahead only demonstrates its resilience and inherent potentialities as catalytic agent for social economic development”

Public Sector Banks (PSBs) are a major type of bank in India, where a majority stake (i.e. more than 50%) is held by the government On 30 August 2019, Union Finance Minister Nirmala Sitaraman announced merger of six public sector banks (PSBs) with four better performing anchor banks in order to streamline their operation and size, two banks were amalgamated to strengthen national presence and four were amalgamated to strengthen regional focuses. Subsequently, the number of public sector bank has been reduced to 12 from 27. Jammu & Kashmir Bank is also a bank owned by the Government of India. This new amalgamation came effective from 1 April 2020.

Currently, India has 78 scheduled commercial banks (SCBs) - 12 public sector banks (that is with the Government of India holding a stake), 19 private banks (these do not have government stake; they may be publicly listed and traded on stock exchanges) and 30 foreign banks. They have a combined network of over 87,892 branches of public sector banks and private sector banks 34,794 braches as on 31.03.2020 and more than 1,34,863, ATMs of PSU and private sector banks ATMs 73,052. According to a RBI report the public sector banks hold over 60 percent of total assets of the banking industry, with the private and foreign bank at 33% and 7% respectively.

Operational risk has emerged as a major source of risk. Although 98 percent of frauds in terms of value Operational risk has emerged as a major source of risk. Although 98 percent off frauds in terms of value were related to loans, their occurrence was spread over several previous years There was a concentration of large value frauds, with the top fifty credit related frauds constituting 76 percent of the total amount reported as frauds during 2019-20. Further, the banking relationship and date of sanction of credit facility in many of these accounts were much older. For instance, the majority off frauds reported till September 2020 both in terms of number and amount had occurred in years prior to 2017-18 Although round 80 percent of the frauds involving amount of‘ more than `one lakh’ were reported by PSBs, their share in total reporting–both number of cases as well as amounts involved declined in 2019-20. With various measures initiated by the RBI, numbers of banking fraud cases have declined, but amount of money lost has increased in these years.

**2. Meaning and Definition**

Fraud is a dishonest act, by which one person gains or intends to gain over another person. In other words, fraud is an act or omission which is intended to cause wrongful gain to one person and wrongful loss to the other, either by way of concealment of facts or otherwise Fraud is defined as „the use of one's occupation for personal enrichment through deliberate misuses or misapplication of the employing organizations resources or assets.

RBI defines fraud as “a deliberate act of omission or commission by any person carried out in the course of a banking transaction or in the books of accounts maintained manually or under computer system in banks, resulting into wrongful gain to any person for a temporary period or otherwise, with or without any monetary loss to the banks”.

3. **Review of Literature**

The important Studies reviewed on the topics presented as follows:

The literature highlights a steady rise in banking fraud cases, particularly from 2018 to 2022, driven by technological advancements and a shift towards self-service banking, which has increased customer vulnerability (Dr. B. Srinivas, 2023). Addressing these fraud threats requires a comprehensive approach that integrates technological advancements, organizational culture, and enhanced training (Dr. Rohan Joshi, 2022). India's push towards digitization, especially post-demonetization, has fueled a rise in digital frauds, emphasizing the need for stronger fraud management frameworks (Diksha Mishra & Dr. Brijesh Kumar Jaiswal, 2022). The legal framework has been slow to adapt to modern challenges, with outdated laws failing to address the complexities of banking frauds (Richa Rajpal, 2022).

Several studies also point to the critical issue of fraud in public sector banks, particularly related to loans, underscoring the need for diligent internal processes (G.V.K.R. Sharma, 2022). Researchers like Dr. C.P. Gupta (2021) argue that comprehensive strategies and new legislation are necessary to tackle banking frauds, as current measures are insufficient. In addition, while banks are increasingly aware of the need for better fraud management, there is still a lack of forensic tools and systematic approaches to identifying risks (Ms. Nanda Pardhey, 2021; Mrs. Sunindita Pan, 2020). Finally, the importance of employee education, customer awareness, and collective organizational efforts is highlighted as critical to reducing fraud in the long term (A. Shivakanth Shetty, 2019).

**4. Research Gap**

From the above review of literature the Points were observed:

While numerous studies have examined the issue of bank frauds, most have been limited in scope, focusing on only a few select banks or specific types of frauds. Many of these studies have primarily concentrated on frauds related to loans and advances, neglecting a broader spectrum of fraudulent activities within the banking sector. To address the limitations of previous studies, the present research aims to fill the gap by undertaking a comprehensive analysis of bank frauds in India, focusing on both public and private sector banks. Another critical aspect that this study addresses is the perception of customers regarding the effectiveness of existing fraud risk management initiatives.

5. **Research Objectives**

To this, study has been conducted make very specific following objective has been covered within the Study:

- To examine customer perceptions of bank frauds in both public and private sector banks.

**Hypotheses for Study**

**H0**: There is no significant difference in customer perceptions of bank frauds between public and private sector banks across different demographic factors.

**H1**: There is a significant difference in customer perceptions of bank frauds between public and private sector banks across different demographic factors.

**6. Research Methodology**

To investigate this research, primary and secondary data was used. Researcher adopted the proper sample procedure to select the items from sample banking companies and its customers Researcher has used purposive sampling method for

thecollection of the data. This method is a non-probability sampling approach, in which sample is selected on the basis of the population characteristics and objectives of research. A closed ended structured questionnaire was used to collect from the accountholders from the select top five public and private sector banks based on its market capitalization. The structured questionnaire was used to understand the respondent's perception and their decision making towards using the bank.

**Sample Selection**

Formula of Cochran (Cochran, 1963, p.75), discussed in his book 'Sampling Techniques' was used.
Based on the Cochran, "Sampling Techniques" 1963, p.75, the sample size of customers were 400. The following justification useful to understand the sample Justification.

- $n_0 = \frac{z^2 \times p(1-p)}{e^2}$ …….. **Equation (3.1(a))**

Where,

| | | |
|---|---|---|
| $n_0$ | - | Sample size, which was estimated |
| $z^2$ | - | Selected critical value of desired level of confidence or risk |
| $p$ | - | Estimated proportion of an attribute that is present in the population or maximum variability of the population |
| $e$ | - | Desired level of precision or margin of error |

The following values can be used for estimating the sample size-

| | | |
|---|---|---|
| $n_0$ | - | ? |
| $z^2$ | - | 95% confidence level (The value of (1-α) in Standard Normal Distribution **z**-table, which is 1.96 for 95%) |
| $p$ | - | 50% variability of the population (which is maximum) |
| $e$ | - | 5% margin of error |

Put the value in given formula-

$$n_0 = \frac{(1.96)^2 \times 0.5(1-0.5)}{(0.05)^2} = 384.16$$

**Sample Justification**

Based on Cochran's formula for sample size determination (Cochran, 1963, p.75), the minimum required sample size for this study is calculated to be 384 participants. To enhance the accuracy and reliability of the research findings, a slightly larger sample size of **400 respondents** was chosen. Frome Public Sector Banks 200 respondents and from Private Sector banks 200 respondents. This increase not only improves the quality of the data but also ensures better representation of the population, leading to more robust and generalizable results.

**Table 1 : Reliability Statistics of Customers Perception on Bank frauds**

| Group | Cronbach's Alpha | No of Items |
|---|---|---|
| Public Sector Banks | .917 | 33 |
| Private Sector Banks | .945 | 33 |

Cronbach's Alpha is a measure of internal consistency Reliability Statistics, which assesses how well the items in a scale or instrument are correlated with each other. The values of public and private sector banks showed high internal consistency, with Cronbach's Alpha values of 0.917 and 0.945, respectively. This Reliability Statistics suggests that the items within the scales used for measurement in both sectors are highly correlated with each other, indicating a high degree of reliability in the data collected from both sectors.

**7. Results Analysis:**

The results analysis focuses on understanding customer perceptions of bank frauds in both public and private sector banks. Through various statistical tests, including ANOVA, the study examines how demographic factors such as gender, age, education, income level, and occupation influence customer awareness and perception of fraud types and reasons. This analysis highlights key trends and differences in perceptions across different groups, providing insights into customer behavior and the potential factors driving their understanding of bank frauds. The findings offer valuable information for banks to enhance their fraud prevention strategies and customer education efforts.

**Table 1: Customer Demographical Factors**

| Demographic Factor | | Public Sector | | Private Sector | | Total | |
|---|---|---|---|---|---|---|---|
| | | F | % | F | % | F | % |
| Gender | Male | 97 | 48.5% | 121 | 60.5% | 218 | 54.5% |
| | Female | 101 | 50.5% | 79 | 39.5% | 180 | 45.0% |
| | Prefer Not to Say | 2 | 1.0% | 0 | 0.0% | 2 | .5% |
| Age | Less than 30 years | 92 | 46.0% | 116 | 58.0% | 208 | 52.0% |
| | 31 to 40 years | 58 | 29.0% | 41 | 20.5% | 99 | 24.8% |
| | Between 41 to 50 years | 36 | 18.0% | 35 | 17.5% | 71 | 17.8% |
| | 51 years or above | 14 | 7.0% | 8 | 4.0% | 22 | 5.5% |
| Educational Qualification | Graduate | 79 | 39.5% | 105 | 52.5% | 184 | 46.0% |
| | Post-Graduate | 67 | 33.5% | 56 | 28.0% | 123 | 30.8% |
| | Professionally Qualified | 38 | 19.0% | 33 | 16.5% | 71 | 17.8% |
| | Other | 16 | 8.0% | 6 | 3.0% | 22 | 5.5% |
| Income Level | Bellow 2 Lakh | 79 | 39.5% | 105 | 52.5% | 184 | 46.0% |
| | Between 200001 to 400000 | 67 | 33.5% | 56 | 28.0% | 123 | 30.8% |
| | Between 400001 to 600000 | 38 | 19.0% | 33 | 16.5% | 71 | 17.8% |
| | Above 600,000 | 16 | 8.0% | 6 | 3.0% | 22 | 5.5% |
| Occupation | Private Job | 94 | 47.0% | 107 | 53.5% | 201 | 50.3% |
| | Government Job | 50 | 25.0% | 29 | 14.5% | 79 | 19.8% |
| | Professional Job | 32 | 16.0% | 40 | 20.0% | 72 | 18.0% |
| | Business | 24 | 12.0% | 24 | 12.0% | 48 | 12.0% |

Source : Primary Data

Table 1 states that demographical factors of customers.

**Gender**: In the public sector, female customers slightly outnumber males (50.5% vs. 48.5%), whereas in the private sector, male customers dominate (60.5%). Overall, males represent 54.5% of the total customer base.

**Age**: The largest customer group in both sectors is those under 30 years, comprising 52% of the total, with a stronger presence in private sector banks (58%). The 31 to 40-year age group is more prominent in public banks (29% compared to 20.5% in private banks). Customers aged 51 years or above are the smallest group (5.5% total), with more in public banks (7%).

**Educational Qualification**: The majority of customers across both sectors are graduates (46%), with a higher percentage in the private sector (52.5%). Post-graduate and professionally qualified customers follow, with nearly equal distribution across both sectors. Only 5.5% have other educational backgrounds.

**Income Level**: The majority of customers (46%) have an income below ₹2 lakh, more prevalent in private banks (52.5%). As income rises, the proportion of customers decreases, with only 5.5% of customers earning above ₹6 lakh.

**Occupation**: Private sector banks have a higher proportion of customers with private jobs (53.5%) compared to public sector banks (47%). Government employees are more prevalent in public banks (25%), while professional jobholders are evenly split across sectors (18% total). Business owners constitute 12% in both sectors.

**Table 2: Awareness Levels of Customers on Bank frauds related to Operations**

| Areas of Operations | | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | Total |
|---|---|---|---|---|---|---|---|
| Bank frauds in Advances | F | 53 | 41 | 70 | 68 | 168 | 400 |
| | % | 13.3% | 10.3% | 17.5% | 17.0% | 42.0% | 100.0% |
| Bank frauds in Off-balance sheet | F | 38 | 47 | 108 | 148 | 59 | 400 |
| | % | 9.5% | 11.8% | 27.0% | 37.0% | 14.8% | 100.0% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Bank frauds in foreign exchange transactions | F | 29 | 38 | 130 | 130 | 73 | 400 |
| | % | 7.3% | 9.5% | 32.5% | 32.5% | 18.3% | 100.0% |
| Bank frauds in Card/internet | F | 30 | 46 | 53 | 136 | 135 | 400 |
| | % | 7.5% | 11.5% | 13.3% | 34.0% | 33.8% | 100.0% |
| Bank frauds in Deposits | F | 35 | 25 | 52 | 91 | 196 | 400 |
| | % | 8.8% | 6.3% | 13.0% | 22.8% | 49.1% | 100.0% |
| Bank frauds in Inter-branch a/c's | F | 56 | 42 | 99 | 119 | 84 | 400 |
| | % | 14.0% | 10.5% | 24.8% | 29.8% | 21.0% | 100.0% |
| Bank frauds in Cash transactions | F | 33 | 52 | 98 | 137 | 80 | 400 |
| | % | 8.3% | 13.0% | 24.5% | 34.3% | 20.0% | 100.0% |
| Bank frauds Cheques/DD, etc | F | 27 | 38 | 99 | 153 | 83 | 400 |
| | % | 6.8% | 9.5% | 24.8% | 38.3% | 20.8% | 100.0% |
| Bank frauds in Clearing a/c's | F | 45 | 52 | 44 | 128 | 131 | 400 |
| | % | 11.3% | 13.0% | 11.0% | 32.0% | 32.8% | 100.0% |

Source : Primary Data

The Table 2 states that customer awareness levels of operational wise bank frauds. The highest percentage of respondents (42.0%) strongly agree that they are aware of bank frauds in advances, indicating a significant level of awareness in this area. A notable percentage (37.0%) agree that they are aware of off-balance sheet frauds, though fewer respondents (14.8%) strongly agree, showing moderate awareness levels. There is a balanced awareness with 32.5% agreeing and 32.5% remaining neutral, suggesting mixed feelings about awareness in foreign exchange transaction frauds. The majority of respondents (33.8% strongly agree and 34.0% agree) are aware of frauds in card and internet transactions, reflecting high awareness in this area. A substantial percentage (49.1%) strongly agree on their awareness of frauds in deposits, showing very high awareness in this domain. Awareness is moderately high with 29.8% agreeing and 21.0% strongly agreeing on their knowledge of inter-branch account frauds. Most respondents (34.3%) agree that they are aware of frauds in cash transactions, indicating good awareness levels. There is a relatively high awareness with 38.3% agreeing and 20.8% strongly agreeing about frauds in cheques/DDs. A significant portion of respondents (32.8%) strongly agree and 32.0% agree on their awareness of clearing account frauds, showing strong awareness in this area.

**Table 3 : ANOVA Analysis of Demographic Factors and Customer Awareness Levels of Bank Frauds in Public Sector Banks**

| Variable | Gender | N | Mean | Std. Deviation | Std. Error | F | Sig. |
|---|---|---|---|---|---|---|---|
| Gender | Male | 97 | 3.62 | 0.78 | 0.08 | 1.311 | 0.272 |
| | Female | 101 | 3.70 | 0.75 | 0.07 | | |
| | Prefer Not to Say | 2 | 2.89 | 0.16 | 0.11 | | |
| | Total | 200 | 3.66 | 0.76 | 0.05 | | |
| Age | Less than 30 years | 92 | 3.59 | 0.90 | 0.09 | 2.04 | 0.11 |
| | 31 to 40 years | 58 | 3.85 | 0.57 | 0.07 | | |
| | Between 41 to 50 years | 36 | 3.51 | 0.62 | 0.10 | | |
| | 51 years or above | 14 | 3.64 | 0.69 | 0.18 | | |
| | Total | 200 | 3.66 | 0.76 | 0.05 | | |
| Educational Qualification | Graduate | 79 | 3.78 | 0.78 | 0.09 | 3.843 | 0.011 |
| | Post-Graduate | 67 | 3.67 | 0.76 | 0.09 | | |
| | Professionally Qualified | 38 | 3.60 | 0.66 | 0.11 | | |
| | Other | 16 | 3.10 | 0.73 | 0.18 | | |
| | Total | 200 | 3.66 | 0.76 | 0.05 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Income Level | Bellow 2 Lakh | 79 | 3.77 | 0.83 | 0.09 | 4.738 | 0.003 |
| | Between 200001 to 400000 | 60 | 3.80 | 0.65 | 0.08 | | |
| | Between 400001 to 600000 | 32 | 3.36 | 0.78 | 0.14 | | |
| | Above 600,000 | 29 | 3.36 | 0.62 | 0.12 | | |
| | Total | 200 | 3.66 | 0.76 | 0.05 | | |
| Occupation | Private Job | 94 | 3.73 | 0.85 | 0.09 | 1.423 | 0.237 |
| | Government Job | 50 | 3.70 | 0.67 | 0.10 | | |
| | Professional Job | 32 | 3.53 | 0.71 | 0.13 | | |
| | Business | 24 | 3.42 | 0.62 | 0.13 | | |
| | Total | 200 | 3.66 | 0.76 | 0.05 | | |

The ANOVA analysis of customer awareness levels regarding bank frauds in public sector banks indicates various patterns across demographic factors. **Gender** shows no significant difference in awareness levels (F=1.311, Sig.=0.272), with means of 3.62 for males and 3.70 for females. **Age** also reveals no significant differences (F=2.04, Sig.=0.11), though the age group of 31 to 40 years has the highest mean awareness level at 3.85. However, **educational qualification** emerges as a significant factor (F=3.843, Sig.=0.011), with graduates reporting a mean awareness level of 3.78, suggesting that higher education correlates with increased awareness of bank frauds. The **income level** factor is also significant (F=4.738, Sig.=0.003), with individuals earning below ₹2 lakh demonstrating the highest mean awareness at 3.77, indicating that lower-income groups may be more vigilant about fraud. Lastly, **occupation** shows no significant differences (F=1.423, Sig.=0.237), suggesting consistent awareness levels across various job types. Overall, educational qualification and income level significantly influence customer awareness of bank frauds in public sector banks, while gender, age, and occupation do not show significant variations.

**Table 4 : ANOVA Analysis of Demographic Factors and Customer Awareness Levels of Bank Frauds in Private Sector Banks**

| Variable | Gender | N | Mean | Std. Deviation | Std. Error | F | Sig. |
|---|---|---|---|---|---|---|---|
| Gender | Male | 121 | 3.37 | 0.92 | 0.08 | 5.412 | 0.021 |
| | Female | 79 | 3.66 | 0.77 | 0.09 | | |
| | Total | 200 | 3.49 | 0.87 | 0.06 | | |
| Age | Less than 30 years | 116 | 3.43 | 0.88 | 0.08 | 1.656 | 0.178 |
| | 31 to 40 years | 41 | 3.75 | 0.95 | 0.15 | | |
| | Between 41 to 50 years | 35 | 3.38 | 0.75 | 0.13 | | |
| | 51 years or above | 8 | 3.33 | 0.71 | 0.25 | | |
| | Total | 200 | 3.49 | 0.87 | 0.06 | | |
| Educational Qualification | Graduate | 105 | 3.45 | 0.93 | 0.09 | 1.662 | 0.177 |
| | Post-Graduate | 56 | 3.62 | 0.79 | 0.11 | | |
| | Professionally Qualified | 33 | 3.48 | 0.75 | 0.13 | | |
| | Other | 6 | 2.81 | 1.08 | 0.44 | | |
| | Total | 200 | 3.49 | 0.87 | 0.06 | | |
| Income Level | Bellow 2 Lakh | 74 | 3.64 | 0.79 | 0.09 | 6.028 | 0.001 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Between 200001 to 400000 | 57 | 3.69 | 0.99 | 0.13 | | |
| | Between 400001 to 600000 | 41 | 3.28 | 0.77 | 0.12 | | |
| | Above 600,000 | 28 | 2.98 | 0.76 | 0.14 | | |
| | Total | 200 | 3.49 | 0.87 | 0.06 | | |
| Occupation | Private Job | 107 | 3.58 | 0.85 | 0.08 | 2.948 | 0.034 |
| | Government Job | 29 | 3.66 | 0.85 | 0.16 | | |
| | Professional Job | 40 | 3.15 | 0.95 | 0.15 | | |
| | Business | 24 | 3.40 | 0.78 | 0.16 | | |
| | Total | 200 | 3.49 | 0.87 | 0.06 | | |

The ANOVA analysis of customer awareness levels of bank frauds in private sector banks reveals several significant findings. **Gender** shows a significant difference in awareness (F=5.412, Sig.=0.021), with females having a higher mean awareness level (3.66) compared to males (3.37). In terms of **age**, the analysis indicates no significant impact on awareness levels (F=1.656, Sig.=0.178). The **educational qualification** variable also does not yield significant differences (F=1.662, Sig.=0.177). However, **income level** significantly affects awareness (F=6.028, Sig.=0.001), with those earning below ₹2 lakh showing the highest mean awareness level (3.64). Finally, **occupation** demonstrates a significant effect (F=2.948, Sig.=0.034), with private job holders showing a mean awareness level of 3.58, indicating a higher perception of fraud compared to other occupational groups. Overall, gender, income level, and occupation significantly influence customer awareness levels of bank frauds in private sector banks, while age and educational qualification do not.

**Table 5: Consumer Awareness levels of Bank fraud based on areas of operations**

| Consumer Awareness | N | Mean | Std. Deviation | Std. Error |
|---|---|---|---|---|
| Public Sector Banks | 200 | 3.6550 | .76238 | .05391 |
| Private Sector Banks | 200 | 3.4850 | .87426 | .06182 |
| Total | 400 | 3.5700 | .82361 | .04118 |

The table showing the descriptive statistics of consumer awareness levels of bank fraud based on areas of operations. From the table, we can see that the mean awareness level for Public Sector Banks is 3.6550, with a standard deviation of 0.76238 and a standard error of 0.05391. Similarly, for Private Sector Banks, the mean awareness level is 3.4850, with a standard deviation of 0.87426 and a standard error of 0.06182. The total mean awareness level across both sectors is 3.5700, with a standard deviation of 0.82361 and a standard error of 0.04118.

**Table 6: ANOVA- Consumer Awareness levels of Bank fraud based on areas of operations**

| ANOVA | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 2.890 | 1 | 2.890 | 4.296 | .039 |
| Within Groups | 267.767 | 398 | .673 | | |
| Total | 270.657 | 399 | | | |

This table appears to show the results of an analysis of variance (ANOVA) for consumer awareness levels of bank fraud based on areas of operations (Public Sector Banks and Private Sector Banks). The sum of squares between groups is 2.890, with 1 degree of freedom. The sum of squares within groups is 267.767, with 398 degrees of freedom. The total sum of squares is 270.657, with 399 degrees of freedom. The F-value of 4.296 suggests that there is a significant difference in awareness levels between the two areas of operations, as the associated p-value (Sig.) is 0.039, which is less than the conventional threshold of 0.05. Therefore, we reject the null hypothesis and conclude that there is a statistically significant difference in consumer awareness levels of bank fraud based on areas of operations.

**Table 7: Perception of Customers on types of frauds**

| Types of Frauds | | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | Total |
|---|---|---|---|---|---|---|---|
| Frauds in Unauthorized sanctions | F | 60 | 34 | 68 | 155 | 83 | 400 |
| | % | 15.0% | 8.5% | 17.0% | 38.8% | 20.8% | 100.0% |
| Frauds in Unauthorized borrowings | F | 32 | 49 | 72 | 158 | 89 | 400 |
| | % | 8.0% | 12.3% | 18.0% | 39.5% | 22.3% | 100.0% |
| Frauds in Fake payments | F | 29 | 33 | 87 | 157 | 94 | 400 |
| | % | 7.3% | 8.3% | 21.8% | 39.3% | 23.5% | 100.0% |
| Frauds in Forged cheques | F | 45 | 32 | 68 | 149 | 105 | 399 |
| | % | 11.3% | 8.0% | 17.0% | 37.3% | 26.3% | 100.0% |
| Frauds in Money laundering | F | 35 | 44 | 59 | 152 | 110 | 400 |
| | % | 8.8% | 11.0% | 14.8% | 38.0% | 27.5% | 100.0% |
| Frauds in Manipulation of a/c's | F | 45 | 43 | 64 | 151 | 97 | 400 |
| | % | 11.3% | 10.8% | 16.0% | 37.8% | 24.3% | 100.0% |
| Frauds in Opening fictitious a/c's | F | 42 | 40 | 58 | 161 | 99 | 400 |
| | % | 10.5% | 10.0% | 14.5% | 40.3% | 24.8% | 100.0% |

Source : Primary Data

The table states that Customer Perception on Types of Bank Frauds. A significant portion of respondents (38.8% agree and 20.8% strongly agree) perceive unauthorized sanctions as a common type of fraud, indicating high awareness and concern about this issue. Most respondents (39.5% agree and 22.3% strongly agree) perceive unauthorized borrowings as a prevalent type of fraud, reflecting strong awareness and concern. Awareness of fake payment frauds is high, with 39.3% agreeing and 23.5% strongly agreeing, showing significant concern about this type of fraud. A considerable number of respondents (37.3% agree and 26.3% strongly agree) are aware of frauds involving forged cheques, indicating high levels of perception and concern. Most respondents (38.0% agree and 27.5% strongly agree) are aware of money laundering frauds, reflecting strong awareness and concern about this type of fraud. A significant number of respondents (37.8% agree and 24.3% strongly agree) perceive manipulation of accounts as a common fraud, showing high levels of awareness and concern. The highest percentage of respondents (40.3% agree and 24.8% strongly agree) are aware of frauds related to opening fictitious accounts, indicating strong perception and concern about this issue.

**Table 8 : ANOVA Analysis of Demographic Factors and Customer Perception of Fraud Types in Public Sector Banks**

| Variable | Gender | N | Mean | Std. Deviation | Std. Error | F | Sig. |
|---|---|---|---|---|---|---|---|
| Gender | Male | 97 | 3.66 | 0.74 | 0.08 | 1.513 | 0.223 |
| | Female | 101 | 3.65 | 0.72 | 0.07 | | |
| | Prefer Not to Say | 2 | 2.75 | 0.07 | 0.05 | | |
| | Total | 200 | 3.64 | 0.73 | 0.05 | | |
| Age | Less than 30 years | 92 | 0.87 | 0.09 | 3.56 | 1.51 | 0.213 |
| | 31 to 40 years | 58 | 0.57 | 0.07 | 3.78 | | |
| | Between 41 to 50 years | 36 | 0.63 | 0.10 | 3.57 | | |
| | 51 years or above | 14 | 0.50 | 0.13 | 3.84 | | |
| | Total | 200 | 0.73 | 0.05 | 3.64 | | |
| Educational Qualification | Graduate | 79 | 3.75 | 0.73 | 0.08 | 3.37 | 0.02 |
| | Post-Graduate | 67 | 3.64 | 0.69 | 0.08 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Professionally Qualified | 38 | 3.64 | 0.71 | 0.11 | | |
| | Other | 16 | 3.13 | 0.81 | 0.20 | | |
| | Total | 200 | 3.64 | 0.73 | 0.05 | | |
| Income Level | Bellow 2 Lakh | 79 | 3.71 | 0.77 | 0.09 | 2.47 | 0.063 |
| | Between 200001 to 400000 | 60 | 3.77 | 0.67 | 0.09 | | |
| | Between 400001 to 600000 | 32 | 3.43 | 0.77 | 0.14 | | |
| | Above 600,000 | 29 | 3.44 | 0.64 | 0.12 | | |
| | Total | 200 | 3.64 | 0.73 | 0.05 | | |
| Occupation | Private Job | 94 | 3.68 | 0.83 | 0.09 | 0.825 | 0.481 |
| | Government Job | 50 | 3.72 | 0.69 | 0.10 | | |
| | Professional Job | 32 | 3.54 | 0.54 | 0.10 | | |
| | Business | 24 | 3.48 | 0.63 | 0.13 | | |
| | Total | 200 | 3.64 | 0.73 | 0.05 | | |

The ANOVA analysis of customer perception regarding fraud types in public sector banks reveals several insights related to demographic factors. **Gender** shows no significant difference in perception (F=1.513, Sig.=0.223), with means of 3.66 for males and 3.65 for females. **Age** also does not indicate significant variation (F=1.51, Sig.=0.213), with the overall mean being 0.73 across all age groups. However, the **educational qualification** factor is significant (F=3.37, Sig.=0.020), with graduates reporting a higher mean of 3.75, suggesting that education influences perception of fraud types. The analysis of **income level** approaches significance (F=2.47, Sig.=0.063), where the income group below ₹2 lakh has a mean of 3.71, indicating a trend towards differing perceptions based on income. Finally, **occupation** shows no significant differences (F=0.825, Sig.=0.481), suggesting consistent awareness of fraud types across different job sectors. Overall, educational qualification significantly affects perceptions of fraud types in public sector banks, while other demographic factors show varying degrees of influence.

**Table 9 : ANOVA Analysis of Demographic Factors and Customer Perception of Fraud Types in Private Sector Banks**

| Variable | Gender | N | Mean | Std. Deviation | Std. Error | F | Sig. |
|---|---|---|---|---|---|---|---|
| Gender | Male | 121 | 3.41 | 0.88 | 0.08 | 3.226 | 0.074 |
| | Female | 79 | 3.64 | 0.84 | 0.09 | | |
| | Total | 200 | 3.50 | 0.87 | 0.06 | | |
| Age | Less than 30 years | 116 | 0.91 | 0.08 | 3.47 | 1.423 | 0.237 |
| | 31 to 40 years | 41 | 0.87 | 0.14 | 3.69 | | |
| | Between 41 to 50 years | 35 | 0.79 | 0.13 | 3.49 | | |
| | 51 years or above | 8 | 0.35 | 0.12 | 3.04 | | |
| | Total | 200 | 0.87 | 0.06 | 3.50 | | |
| Educational Qualification | Graduate | 105 | 3.43 | 0.89 | 0.09 | 1.509 | 0.214 |
| | Post-Graduate | 56 | 3.67 | 0.82 | 0.11 | | |
| | Professionally Qualified | 33 | 3.52 | 0.86 | 0.15 | | |
| | Other | 6 | 3.03 | 0.87 | 0.36 | | |
| | Total | 200 | 3.50 | 0.87 | 0.06 | | |
| Income Level | Bellow 2 Lakh | 74 | 3.69 | 0.77 | 0.09 | 5.475 | 0.001 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Between 200001 to 400000 | 57 | 3.64 | 0.95 | 0.13 | | |
| | Between 400001 to 600000 | 41 | 3.27 | 0.88 | 0.14 | | |
| | Above 600,000 | 28 | 3.05 | 0.74 | 0.14 | | |
| | Total | 200 | 3.50 | 0.87 | 0.06 | | |
| Occupation | Private Job | 107 | 3.59 | 0.79 | 0.08 | 2.024 | 0.112 |
| | Government Job | 29 | 3.63 | 0.78 | 0.15 | | |
| | Professional Job | 40 | 3.23 | 1.10 | 0.17 | | |
| | Business | 24 | 3.40 | 0.79 | 0.16 | | |
| | Total | 200 | 3.50 | 0.87 | 0.06 | | |

The ANOVA analysis of customer perception regarding types of fraud in private sector banks reveals notable insights related to demographic factors. In terms of **gender**, the mean perception is higher for females (3.64) compared to males (3.41), but this difference is not statistically significant (F=3.226, Sig.=0.074). **Age** shows no significant effect on perceptions of fraud types, with all age groups demonstrating similar awareness levels (F=1.423, Sig.=0.237). Regarding **educational qualification**, there are no significant differences in fraud perception (F=1.509, Sig.=0.214), with all groups reflecting similar mean values around 3.50. However, **income level** significantly influences perception (F=5.475, Sig.=0.001). Specifically, respondents earning below ₹2 lakh exhibit the highest mean perception score (3.69), suggesting greater awareness compared to higher income brackets. Lastly, while the **occupation** variable shows a mean score of 3.59 for private job holders, it does not reach statistical significance (F=2.024, Sig.=0.112). Overall, income level stands out as a significant demographic factor affecting customer perception of fraud types in private sector banks, while gender, age, educational qualification, and occupation do not show significant differences.

**Table 10 : Consumer Perception on types of Bank fraud**

| Consumer Awareness | N | Mean | Std. Deviation | Std. Error |
|---|---|---|---|---|
| Public Sector Banks | 200 | 3.6435 | .73365 | .05188 |
| Private Sector Banks | 200 | 3.5020 | .86993 | .06151 |
| Total | 400 | 3.5728 | .80679 | .04034 |

This table presents descriptive statistics for different types of frauds, categorized by Public Sector Banks and Private Sector Banks. The mean score for fraud types in Public Sector Banks is 3.6435, with a standard deviation of 0.73365 and a standard error of 0.05188. The mean score for fraud types in Private Sector Banks is 3.5020, with a standard deviation of 0.86993 and a standard error of 0.06151. Across both sectors, the mean score for fraud types is 3.5728, with a standard deviation of 0.80679 and a standard error of 0.04034.

**Table 11 : ANOVA- Consumer Perception on types of Bank fraud**

| ANOVA | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 2.002 | 1 | 2.002 | 3.092 | .079 |
| Within Groups | 257.711 | 398 | .648 | | |
| Total | 259.713 | 399 | | | |

This ANOVA table analyses the differences in types of fraud among different groups, possibly comparing Public Sector Banks and Private Sector Banks. The sum of squares between groups is 2.002, with 1 degree of freedom. The sum of squares within groups is 257.711, with 398 degrees of freedom. The total sum of squares is 259.713, with 399 degrees of freedom. The F-value of 3.092 suggests there might be a difference in types of fraud between groups. However, the associated p-value (Sig.) is 0.079, which is slightly above the conventional threshold of 0.05. Therefore, based on this significance level, we would not conclude with confidence that there is a statistically significant difference in types of fraud between the groups.

**Table 12 : Customer Perception on Reasons for frauds**

| Types of Frauds | | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | Total |
|---|---|---|---|---|---|---|---|
| Poor internal control system | F | 43 | 20 | 71 | 158 | 108 | 400 |
| | % | 10.8% | 5.0% | 17.8% | 39.5% | 27.0% | 100.0% |
| Lack of proper audit | F | 42 | 38 | 60 | 140 | 120 | 400 |
| | % | 10.5% | 9.5% | 15.0% | 35.0% | 30.0% | 100.0% |
| Unauthorized extension of credit facilities | F | 42 | 28 | 65 | 164 | 101 | 400 |
| | % | 10.5% | 7.0% | 16.3% | 41.0% | 25.3% | 100.0% |
| Negligence to inspect the security documents | F | 44 | 34 | 64 | 147 | 111 | 399 |
| | % | 11.0% | 8.5% | 16.0% | 36.8% | 27.8% | 100.0% |
| Collusion between employees and external parties | F | 44 | 29 | 52 | 162 | 113 | 400 |
| | % | 11.0% | 7.3% | 13.0% | 40.5% | 28.3% | 100.0% |
| Multiple financing to the same party against the same security | F | 40 | 34 | 63 | 140 | 123 | 400 |
| | % | 10.0% | 8.5% | 15.8% | 35.0% | 30.8% | 100.0% |
| Lack of training | F | 40 | 41 | 64 | 147 | 108 | 400 |
| | % | 10.0% | 10.3% | 16.0% | 36.8% | 27.0% | 100.0% |
| Corrupt officer-in-charge | F | 42 | 43 | 68 | 134 | 113 | 400 |
| | % | 10.5% | 10.8% | 17.0% | 33.5% | 28.3% | 100.0% |
| Negligence by the employees | F | 38 | 38 | 65 | 158 | 101 | 400 |
| | % | 9.5% | 9.5% | 16.3% | 39.5% | 25.3% | 100.0% |
| Pressure on the employees to meet the targets | F | 42 | 36 | 61 | 142 | 119 | 400 |
| | % | 10.5% | 9.0% | 15.3% | 35.5% | 29.8% | 100.0% |
| Lack of facilities for the identification of red flags | F | 42 | 42 | 52 | 162 | 102 | 400 |
| | % | 10.5% | 10.5% | 13.0% | 40.5% | 25.5% | 100.0% |
| Illegal cooperation between employees and outsiders | F | 37 | 27 | 58 | 147 | 131 | 400 |
| | % | 9.3% | 6.8% | 14.5% | 36.8% | 32.8% | 100.0% |

Source : Primary Data

The table data presents the customer perception of various reasons for fraud. A significant portion of respondents 39.5% agree and 27% strongly agree that poor internal control systems contribute to fraud, highlighting that nearly two-thirds view this as a critical factor. 35% of respondents agree and 30% strongly agree that insufficient audits lead to fraud, indicating a strong consensus (65%) on the importance of proper auditing. 41% agree and 25.3% strongly agree that unauthorized credit extensions are a reason for fraud, with two-thirds (66.3%) recognizing it as a major issue. With 36.8% agreeing and 27.8% strongly agreeing, a total of 64.6% believe that negligence in inspecting security documents is a significant cause of fraud. A substantial 40.5% agree and 28.3% strongly agree, indicating 68.8% see collusion as a major contributor to fraudulent activities. 35% agree and 30.8% strongly agree that multiple financings to the same party against the same security are a cause of fraud, making it an area of concern for 65.8% of respondents. 36.8% agree and 27% strongly agree on the lack of training leading to fraud, showing 63.8% see training deficiencies as a significant issue. 33.5% agree and 28.3% strongly agree that corrupt officers are a reason for fraud, with a total of 61.8% identifying this as a problem. 39.5% agree and 25.3% strongly agree that employee negligence contributes to fraud, suggesting that 64.8% of respondents view this as a considerable factor. 35.5% agree and 29.8% strongly agree that pressure to meet targets can lead to fraud, with 65.3% acknowledging this as a potential cause. 40.5% agree and 25.5% strongly agree that insufficient facilities for identifying red flags are a reason for fraud, indicating 66% recognize this issue. 36.8% agree and 32.8% strongly agree that illegal cooperation is a reason for fraud, highlighting that 69.6% consider this a significant factor.

**Table 13 : ANOVA Analysis of Demographic Factors and Customer Perception on Reasons for Frauds in Public Sector Banks**

| Variable | Gender | N | Mean | Std. Deviation | Std. Error | F | Sig. |
|---|---|---|---|---|---|---|---|
| Gender | Male | 97 | 3.72 | 0.66 | 0.07 | 0.687 | 0.504 |
| | Female | 101 | 3.73 | 0.65 | 0.06 | | |
| | Prefer Not to Say | 2 | 3.18 | 0.45 | 0.32 | | |
| | Total | 200 | 3.72 | 0.66 | 0.05 | | |
| Age | Less than 30 years | 92 | 3.80 | 0.59 | 0.08 | 0.576 | 0.632 |
| | 31 to 40 years | 58 | 3.63 | 0.54 | 0.09 | | |
| | Between 41 to 50 years | 36 | 3.77 | 0.60 | 0.16 | | |
| | 51 years or above | 14 | 3.72 | 0.66 | 0.05 | | |
| | Total | 200 | 3.80 | 0.59 | 0.08 | | |
| Educational Qualification | Graduate | 79 | 3.79 | 0.67 | 0.08 | 3.753 | 0.012 |
| | Post-Graduate | 67 | 3.69 | 0.64 | 0.08 | | |
| | Professionally Qualified | 38 | 3.81 | 0.62 | 0.10 | | |
| | Other | 16 | 3.23 | 0.56 | 0.14 | | |
| | Total | 200 | 3.72 | 0.66 | 0.05 | | |
| Income Level | Bellow 2 Lakh | 79 | 3.76 | 0.67 | 0.07 | 4.728 | 0.003 |
| | Between 200001 to 400000 | 60 | 3.90 | 0.55 | 0.07 | | |
| | Between 400001 to 600000 | 32 | 3.41 | 0.77 | 0.14 | | |
| | Above 600,000 | 29 | 3.56 | 0.56 | 0.10 | | |
| | Total | 200 | 3.72 | 0.66 | 0.05 | | |
| Occupation | Private Job | 94 | 3.75 | 0.71 | 0.07 | 0.329 | 0.804 |
| | Government Job | 50 | 3.67 | 0.68 | 0.10 | | |
| | Professional Job | 32 | 3.76 | 0.43 | 0.08 | | |
| | Business | 24 | 3.63 | 0.62 | 0.13 | | |
| | Total | 200 | 3.72 | 0.66 | 0.05 | | |

The ANOVA analysis of customer perception regarding the reasons for fraud in public sector banks indicates that demographic factors influence awareness levels significantly. Gender does not show a significant difference (F=0.687, Sig.=0.504), with means of 3.72 for males and 3.73 for females. Age groups also yield no significant differences (F=0.576, Sig.=0.632), with the younger group (less than 30 years) having a mean of 3.80. However, educational qualification reveals significant variation (F=3.753, Sig.=0.012), with graduates reporting a higher mean of 3.79 compared to other groups. Income level significantly impacts perception (F=4.728, Sig.=0.003), where individuals earning between ₹200,001 and ₹400,000 report the highest mean of 3.90, contrasting with lower means for higher income brackets. Occupation shows no significant differences (F=0.329, Sig.=0.804), suggesting consistent awareness across job types. Overall, education and income are critical factors influencing customer perceptions of fraud reasons.

**Table 14 : ANOVA Analysis of Demographic Factors and Customer Perception on Reasons for Frauds in Private Sector Banks**

| Variable | Gender | N | Mean | Std. Deviation | Std. Error | F | Sig. |
|---|---|---|---|---|---|---|---|
| Gender | Male | 121 | 3.4138 | 0.87792 | 0.07981 | 9.421 | 0.002 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Female | 79 | 3.7767 | 0.71404 | 0.08034 | | |
| | Total | 200 | 3.5571 | 0.83441 | 0.059 | | |
| Age | Less than 30 years | 116 | 3.4871 | 0.87088 | 0.08086 | 1.054 | 0.37 |
| | 31 to 40 years | 41 | 3.7003 | 0.81726 | 0.12763 | | |
| | Between 41 to 50 years | 35 | 3.6694 | 0.77477 | 0.13096 | | |
| | 51 years or above | 8 | 3.3482 | 0.53512 | 0.18919 | | |
| | Total | 200 | 3.5571 | 0.83441 | 0.059 | | |
| Educational Qualification | Graduate | 105 | 3.5197 | 0.8306 | 0.08106 | 1.924 | 0.127 |
| | Post-Graduate | 56 | 3.7258 | 0.81279 | 0.10861 | | |
| | Professionally Qualified | 33 | 3.4978 | 0.85798 | 0.14935 | | |
| | Other | 6 | 2.9643 | 0.76765 | 0.31339 | | |
| | Total | 200 | 3.5571 | 0.83441 | 0.059 | | |
| Income Level | Bellow 2 Lakh | 3.6873 | 0.80036 | 0.09304 | 3.6873 | 4.81 | 0.003 |
| | Between 200001 to 400000 | 3.7494 | 0.84052 | 0.11133 | 3.7494 | | |
| | Between 400001 to 600000 | 3.2578 | 0.84634 | 0.13218 | 3.2578 | | |
| | Above 600,000 | 3.2602 | 0.72197 | 0.13644 | 3.2602 | | |
| | Total | 3.5571 | 0.83441 | 0.059 | 3.5571 | | |
| Occupation | Private Job | 107 | 3.6101 | 0.85789 | 0.08294 | 1.466 | 0.225 |
| | Government Job | 29 | 3.6552 | 0.72418 | 0.13448 | | |
| | Professional Job | 40 | 3.3125 | 0.93029 | 0.14709 | | |
| | Business | 24 | 3.6101 | 0.62766 | 0.12812 | | |
| | Total | 200 | 3.5571 | 0.83441 | 0.059 | | |

The ANOVA analysis of customer perception regarding the reasons for fraud in private sector banks provides insightful findings based on demographic factors. For **gender**, a significant difference is observed, with males reporting a lower mean perception score of 3.41 compared to females at 3.78 (F=9.421, Sig.=0.002). This suggests that females may have a higher awareness or perception of reasons for fraud than males. In terms of **age**, the results indicate no significant differences in perceptions across various age groups (F=1.054, Sig.=0.37), with mean scores around 3.55 for all age categories. Similarly, **educational qualification** does not demonstrate significant variations in perception (F=1.924, Sig.=0.127), with post-graduates having the highest mean score at 3.73. Regarding **income level**, there is a statistically significant difference (F=4.81, Sig.=0.003). Respondents earning below ₹2 lakh reported a mean perception score of 3.69, indicating a higher awareness compared to those in higher income brackets, particularly those earning between ₹400,001 and ₹600,000, who had a lower mean score of 3.26. Finally, the **occupation** variable showed no significant differences in perceptions (F=1.466, Sig.=0.225), with private job holders reporting a mean score of 3.61.

**Table 15 : Analysis of Descriptive of statistics of Reasons for frauds**

| Reasons for frauds | N | Mean | Std. Deviation | Std. Error |
|---|---|---|---|---|
| Public Sector Banks | 200 | 3.7175 | .65502 | .04632 |

| | | | | |
|---|---|---|---|---|
| Private Sector Banks | 200 | 3.5571 | .83441 | .05900 |
| Total | 400 | 3.6373 | .75344 | .03767 |

This table provides descriptive statistics for the reasons for fraud, categorized by Public Sector Banks and Private Sector Banks. The mean score for reasons for fraud in Public Sector Banks is 3.7175, with a standard deviation of 0.65502 and a standard error of 0.04632. he mean score for reasons for fraud in Private Sector Banks is 3.5571, with a standard deviation of 0.83441 and a standard error of 0.05900. Across both sectors, the mean score for reasons for fraud is 3.6373, with a standard deviation of 0.75344 and a standard error of 0.03767.

**Table 16: Analysis of ANOVA - Consumer perception regards of Reasons for fraud**

| ANOVA | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 2.571 | 1 | 2.571 | 4.570 | .033 |
| Within Groups | 223.932 | 398 | .563 | | |
| Total | 226.503 | 399 | | | |

This ANOVA table analyzes the differences in reasons for fraud among different groups, possibly comparing Public Sector Banks and Private Sector Banks. The sum of squares between groups is 2.571, with 1 degree of freedom. The sum of squares within groups is 223.932, with 398 degrees of freedom. The total sum of squares is 226.503, with 399 degrees of freedom. The F-value of 4.570 suggests there is a significant difference in reasons for fraud between groups. This is further supported by the associated p-value (Sig.) of 0.033, which is less than the conventional threshold of 0.05. Therefore, we reject the null hypothesis and conclude that there is a statistically significant difference in reasons for fraud between the groups being compared.

## 8. Conclusion

The study underscores a generally positive perception of fraud prevention measures and risk management practices among customers in both public and private sector banks in India. This favorable outlook is reflective of the robust systems currently in place, yet it also highlights key differences in employee perceptions concerning the effectiveness and adoption of specific strategies. These insights are invaluable for refining fraud prevention and risk management protocols, thereby fortifying the banking sector's resilience against fraud. Customers from both public and private sector banks demonstrate confidence in the existing fraud prevention measures. This confidence is evident in the consistently high satisfaction levels reported across various aspects of fraud prevention. Such positive feedback indicates that banks have successfully implemented effective security measures that reassure their customers about the safety of their financial transactions. The perception of risk management practices is also overwhelmingly positive. Customers appreciate the comprehensive risk management frameworks that banks have established, which include thorough monitoring and control practices. These frameworks are essential in proactively identifying and mitigating potential risks, thereby maintaining the overall integrity and trustworthiness of the banking system. Creating a culture of risk awareness within the organization is crucial. Banks should promote a proactive approach to risk management, encouraging employees at all levels to remain vigilant and report any suspicious activities. This cultural shift can significantly enhance the effectiveness of fraud prevention measures and ensure a collective effort in combating fraud. Customers in both public and private sector banks generally perceive the existing fraud prevention measures and risk management practices positively. The study highlights that while both sectors have robust systems in place, there are notable differences in employee perceptions, particularly regarding the effectiveness and adoption of certain strategies. These findings provide valuable insights for enhancing fraud prevention and risk management protocols, contributing to the ongoing efforts to combat fraud and improve security within the Indian banking sector. Continued focus on training, policy communication, and the adoption of effective risk management strategies will be crucial in further strengthening the sector's resilience against fraud. The final conclusion is, the Indian banking sector demonstrates a robust framework for fraud prevention and risk management, with customers generally expressing positive perceptions of these measures. However, to further enhance the effectiveness of these strategies, banks should focus on improving employee training, policy communication, and the adoption of advanced technologies. Addressing these areas will not only bolster the sector's defenses against fraud but also contribute to a more secure and trustworthy banking environment. By continuously refining and enhancing their fraud prevention and risk management protocols, banks can ensure the safety and satisfaction of their customers, thereby maintaining their reputation and trust in the competitive financial landscape.

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