CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATIONS

4.1 Introduction

This chapter deals with analysis and interpretations of the data collection in the course of this research. In doing so, the data collected err analyzed based on the simple percentage, while the chi-square (X^2) statistical tool were used to test the level of significant relationship between the variables formulated as hypotheses for the study. However out of 150 copies of the questionnaires administered, one hundred (100) copies were completed and returned. This generates a response rate of 67%. This percentage response rate was considered a favorable one, due to the fact that it was above average.

4.1 Data Presentation

The following tables were used to present and analyze the data for the study.

Table 1: Distribution of respondents by sex

Variable	**No. of Respondents**	**% of Respondent**
Male	90	60
Female	60	40
Total	150	100

Source: Research Survey 2025

Table 2: Distribution of respondents by age

Variable	**No. of Respondents**	**% of Respondent**
18-25yrs	40	40
26-35yrs	35	35
35yrs and above	25	25
Total	100	100

Source: Research Survey 2025

Table 3: Distribution of marital status

Variable	No. of Respondents	% of Respondent
Single	70	70
Married	30	30
Total	150	100

Source: Research Survey 2025

Table 4: Distribution by educational background

Variable	No. of Respondents	% of Respondent
ND	60	60
HND/Degree	30	30
MBA/MSC	10	10
Total	100	100

Source: Research Survey 2025

4.2 Data Analysis

Five (5) research questions were stated for this study. Those questions were sought to elicit facts about the impact of information technology on banks operations in Nigeria. Responses to the question are presented below:

Table 5

Research Question 1: Do you think information technology system will increase banks efficiency in Nigeria?

Responses	No. of Respondents	% of Respondent
Yes	80	80
No	20	20
Total	100	100

Source: Research Survey 2025

Table 6

Research Question 2: Do you think bank management in Nigeria in doing enough to improve information technology in the industry?

Responses	No. of Respondents	% of Respondent
Yes	85	85
No	15	15
Total	100	100

Source: Research Survey 2025

Table 7

Research Question 3: Do you think the banking industry is lacking in the area of information technology?

Responses	No. of Respondents	% of Respondent
Yes	89	89
No	11	11
Total	100	100

Source: Research Survey 2025

Table 8

Research Question 4: Do you think we need foreign investors to develop information technology in Nigeria?

Responses	No. of Respondents	% of Respondent
Yes	80	80
No	20	20
Total	100	100

Source: Research Survey 2025

Table 9

Research Question 5: Do you think information technology have any impact on banks operations in Nigeria?

Responses	No. of Respondents	% of Respondent
Yes	90	90

No	10	10
Total	100	100

Source: Research Survey 2025

4.3 Test of Hypothesis

In evaluating the relationship between variables generated, the chi-squared tested were used. Hence, observed frequencies that is, number of responses and the expected frequencies calculated by multiplying the column total by the row total and divided by the grand total were used to test the significant relationship existing between the variable generated in the questionnaire been hypothesized.

Formula for chi-square

$$X^2 = \frac{\sum(Oi - Ei)^2}{Ei}$$

Where

X^2 = Summation

Oi = Observed frequencies

Ei = Expected frequencies

Decision Rule

The test statistics that is the calculated value (X^2t) and the critical value (X^2c) shall be compared. If the test statistics is greater than the critical value, the null hypothesis will be rejected and the alternative hypothesis will be accepted at 0.05 level of significance but if (X^2c) is less than the (X^2t) the null hypothesis will be accepted while the alternative hypothesis will be rejected at the same significance level.

Total Frequency Table

Responses	**T1**	**T2**	**T3**	**T4**	**T5**	**Total**
Yes	80	85	89	80	90	424
No	20	15	11	20	10	76
Total	100	100	100	100	100	500

Source: Research Survey 2025

The figures in the above table were the observed frequencies from the number of respondents that gave their responses based on the option. Expected frequencies derived calculated below:

$X^2 = \frac{RT \times CT}{GT}$

Where

RT = Row total of each

CT = Column total of each

GT = Grand total of all observed frequencies

Yes = $\frac{424 \times 100}{400} = 83.5$

No = $\frac{76 \times 100}{400} = 16.5$

Chi-Square Distribution Table

Yes				
O	**E**	**(O-E)**	**$(O-E)^2$**	**$(O-E)^2/E$**
80	83.5	-3.5	12.25	0.1467
85	83.5	1.5	2.25	0.0269
89	83.5	5.5	30.25	0.3623
80	83.5	-3.5	12.25	0.1467
No				
20	16.5	3.5	12.25	0.2121
15	16.5	1.5	2.25	0.1364
11	16.5	5.5	30.25	1.8333
20	16.5	3.5	12.15	0.7424
10	16.5	-6.5	42.25	2.5606
				6.6746

$X^2t = 6.6746$

Degree of freedom = (r-1) (c-1) = (2-1) (4-1) = 4

X^2 0.05,4

Level of significant used is 0.05

$X^2c = 7.8147$

From the above statistics, it could be discovered that the calculated value of 6.6746 is less than the critical value of 7.8147 at 0.05 level of significance. Thus, the Hi is rejected while the Ho is accepted which says information technology has significant impact on banks operation in Nigeria.