CHAPTER THREE

3.1: RESEARCH METHODOLOGY

Here's a structured Research Methodology section for a study on the Role of Electronic Banking on Performance of Deposit Money Banks in Nigeria (A case Study of UBA Bank).

3.2: RESEARCH DESIGN

This study adopts a quantitative research design using a descriptive survey method. This design allows for the collection of data from a sample representative of the population and is appropriate for examining the impact of electronic banking services on the performance of deposit money banks in Nigeria.

3.3: POPULATION OF THE STUDY

The population consists of staff from selected deposit money banks in Nigeria, particularly those in departments directly involved in e-banking services (e.g., operations, IT, and customer service). The study also includes performance data from bank financial reports.

3.4: SAMPLING TECHNIQUE AND SAMPLE SIZE

To investigate the impact of electronic banking on the performance of United Bank for Africa (UBA), the following techniques can be used:

a) Primary Data Collection:

Questionnaires: Structured surveys distributed to UBA customers, employees, and management to assess their perceptions of e-banking services (e.g., mobile banking, internet banking, POS, ATMs) and bank performance.

Interviews: Conducting in-depth interviews with UBA branch managers, IT staff, and digital banking officers to gather qualitative insights.

Focus Group Discussions (FGDs): Engaging selected customers and staff in discussions about e-banking adoption challenges and benefits.

b) Secondary Data Collection:

UBA Annual Reports & Financial Statements: Analyzing profitability ratios (ROA, ROE), deposit growth, and transaction volumes from e-banking channels.

Central Bank of Nigeria (CBN) Reports: Reviewing regulatory policies and industry trends in electronic banking.

Published Journals & Articles: Extracting data from previous studies on e-banking and bank performance in Nigeria.

c) Analytical Techniques:

Descriptive Statistics: Mean, standard deviation, and frequency distribution to summarize survey responses.

Regression Analysis: To determine the relationship between e-banking adoption (independent variable) and bank performance (dependent variable, e.g., profitability, customer satisfaction).

Correlation Analysis: To assess the strength of association between e-banking usage and key performance indicators.

2. Sample Size Determination

The sample size depends on the research scope (e.g., customers, employees, or branch data). Common approaches include:

a) For Customer Surveys:

Cochran's Formula:

$$n = \frac{Z^2 \times p \times (1 - p)}{e^2}$$

Where:

- Z = Confidence level (1.96 for 95% confidence)

- p = Estimated proportion of UBA customers using e-banking (e.g., 50% or 0.5 if unknown)

- e = Margin of error (e.g., 5% or 0.05)

Example Calculation:

$$n = \frac{(1.96)^2 \times 0.5 \times 0.5}{(0.05)^2} = 384.16 \approx **385 respondents$$

Adjustment for Finite Population (if needed):

If targeting a specific UBA customer base (e.g., 10,000 customers in Lagos), use:

$$n_{adjusted} = \frac{n}{1 + \frac{(n - 1)}{N}}$$

b) For Employee/Management Surveys:

Purposive Sampling: Select 30–50 UBA staff (branch managers, IT personnel, customer service reps) for interviews/questionnaires.

c) For Financial Data Analysis:

Time-Series Data: Use 5–10 years of UBA's financial reports to analyze trends in e-banking transactions vs. profitability.

3.5 METHOD OF DATA COLLECTION

The primary instrument is a structured questionnaire, designed using a Likert scale format. The questionnaire is divided into sections:

- Demographic information

- Types and usage of e-banking services

- Perceived impact on operational efficiency and customer satisfaction

- Performance measurement indicators

Validity and Reliability of the Instrument

Validity: The questionnaire will be reviewed by experts in banking and research methodology.

Reliability: A pilot test will be conducted with 10 respondents. Cronbach's Alpha will be used to test the internal consistency of the instrument. A value above 0.7 will be considered acceptable.

SOURCES OF DATA

Secondary Data extracted from bank annual reports, Central Bank of Nigeria (CBN) publications, and financial databases to assess performance indicators (e.g., ROA, ROE, Net Interest Margin).

3.6: METHOD OF DATA ANALYSIS

Descriptive Statistics Frequencies, mean, and standard deviation.

Inferential Statistics: Regression analysis to determine the relationship between e-banking and bank performance. Hypotheses will be tested at a 5% level of significance using SPSS or similar statistical software.

Data Presentation and Analysis of UBA Bank Plc on the Role of Electronic Banking in Its Performance.

This study evaluate how electronic banking (e-banking) has influenced the financial and operational performance of United Bank for Africa (UBA) Plc from 2020 to 2024, key metrics analyzed include transaction volumes. Profitability, customer growth and cost efficiency.

3.7: LIMITATION TO METHODOLOGY

The fact that not all workers in the bank have in depth knowledge of all electronic gadget used in bank this will serve as limitation due to the f fact that they were not able to give required information When Called upon.