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Attitudes & Perceptions Towards Cryptocurrencies, and DeFi Adoption in Traditional Banking Services: A Customer Approach (A case study of Nigeria)

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Eghosa Alex Odiase
Student ID: X21241856

School of Computing
National College of Ireland

Supervisor: Victor Del Rosal

National College of Ireland

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School of Computing

Student Name: Eghosa Alex Odiase

Student ID: x21241856

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Attitudes & Perceptions Towards Cryptocurrencies, and DeFi Adoption in Traditional Banking Services: A Customer Approach
(A CASE STUDY OF NIGERIA)

Eghosa Alex Odiase
X21241856

Abstract

This scholarly investigation delves into the profound impact of cryptocurrencies on the financial landscape, posing a formidable challenge to traditional banking models. The meteoric rise in popularity of digital currencies has fundamentally reshaped customer preferences and behaviours, compelling a thorough re-evaluation of the banking sector's strategic approaches. With a specific focus on Nigeria, this meticulously conducted study systematically achieves its objectives. Firstly, it rigorously evaluates customers' awareness and comprehension of cryptocurrencies and decentralized finance (DeFi). Secondly, it meticulously explores customers' opinions on cryptocurrency as an investment opportunity. Thirdly, the research delves into a comprehensive analysis of customer perceptions regarding the integration of DeFi and cryptocurrencies with traditional banking services. Finally, it identifies and elucidates the key elements that influence consumer acceptance or resistance to cryptocurrency and DeFi within the banking industry. Through a rigorous statistical analysis of a comprehensive survey encompassing individuals across various demographic factors, including age, location, and occupation, the study concludes that demographic factors do not significantly influence behavioural intentions regarding adoption. These findings provide valuable insights into the evolving dynamics between traditional banking practices and the burgeoning realm of digital finance. The study's contributions extend beyond academic understanding, offering practical implications for financial institutions navigating this transformative landscape.

1 Introduction

1.1 Background to the Study

The rise in popularity of cryptocurrencies is changing the financial scene and putting traditional banking under a lot of pressure. Digital currencies have seen extraordinary growth in the last several years, garnering a lot of interest and usage. These developments show how customer preferences are changing, but they also show how traditional banks must change to keep up with the changing financial landscape. Blockchain technology underpins most cryptocurrencies, which are decentralized networks with a distributed ledger maintained by a wide range of computer networks (Gowda and Chakravorty, 2021). Cryptocurrencies can simplify and speed up transactions, they also have the potential to completely rewrite the rules

around financial ownership and independence. A worldwide market and opportunities for financial inclusion are made possible by users' ability to handle their money without the need for traditional banking infrastructure. The independence of decentralized currencies is what gives them their essential value. They don't depend on banks or government support because they aren't issued or controlled by a central body like traditional currencies are. This natural decentralization not only improves security but also represents a paradigm change towards inclusive and democratic finance systems. Due to their autonomy, decentralized currencies like cryptocurrencies can function peer-to-peer, which promotes transparency and lowers the possibility of outside manipulation. The almost limitless potential that cryptocurrencies potentially have for society has drawn the interest of programmers, data scientists, and even investors (Doblas,2019). The entire worldwide cryptocurrency market has grown at an astounding rate throughout the years, with a market capitalization of $1.48 trillion as of November 11, 2023(Forbes Digital Assets, 2023).

Like all cryptocurrencies, the future of Bitcoin depends on merchant acceptance and user uptake. The future of Bitcoin will be largely determined by how widely people use it and how willingly businesses accept it as payment (Doblas,2019). The focus lies on assessing if the technology is beneficial and satisfies the requirements of both parties involved in the exchange, underscoring the significance of reciprocal advantages and effectiveness in the technology's adoption. Despite all the speculation and reality, many bank leaders are still unsure about how to best use digital currencies, how to avoid the issues that come with them, how to manage transactions into and out of government-issued currency, and what precautions and procedures to follow (Mogul, z.et al.2023).

Nigeria ranks among the top nations in the adoption of cryptocurrencies with a focus on peer-to-peer trade. Its strong position in the worldwide adoption of cryptocurrencies highlights how well accepted and used these digital assets are inside the nation. Nigeria's notable role in influencing the worldwide development of decentralized financial technology stems from the country's significant involvement in the cryptocurrency arena, particularly among its young. The Nigerian Central Bank (CBN) forbade banks from transacting in cryptocurrencies, which made things difficult for bitcoin exchanges. Cryptocurrencies are, nonetheless, extensively traded on exchanges and through peer-to-peer commerce, and there are no laws or regulations that make using them illegal (Greenfield,2023). The CBN is facing increasing pressure to establish a clear regulatory framework for cryptocurrencies. The realization that a thorough and well-defined set of regulations may allay fears, promote confidence, and offer a haven for the incorporation of cryptocurrencies into the larger financial system is what has led to the need for regulation.

1.2 Statement of Research Problem

Exploring the attitudes and perceptions of individuals in Nigeria concerning the adoption of cryptocurrencies and decentralized finance (DeFi) within traditional banking services. Understanding the factors influencing acceptance, potential concerns, and the overall impact on banking experiences. And also making a significant contribution to the thorough comprehension of the prospects and difficulties related to the implementation of DeFi and cryptocurrencies in the nation's traditional banking industry.

1.3 Research Question

How do customer attitudes and perceptions towards the integration of cryptocurrencies and decentralized finance (DeFi) into traditional banking services correlate with demographic factors such as age, occupation, gender, and geographical location, alongside the current level of cryptocurrency usage, in the context of Nigeria?

1.4 Research Objectives

Outline below are the objectives of this research:

i. Evaluate customers' awareness and understanding of cryptocurrencies and DeFi.

ii. Examine the opinions of customers about using cryptocurrency as a form of investment.

iii. Analyse how customers perceive the integration of DeFi and cryptocurrency with traditional banking services.

iv. To determine the elements affecting consumers' acceptance of or resistance to cryptocurrency and DeFi in the banking industry.

1.5 Research hypothesis

Developing hypotheses and testing them is the cornerstone of rigorous empirical investigation in research. Using multiple regression analysis, this study aims to unravel intricate relationships a dependent variable (behavioural intention) and several independent variables (age, gender, occupation, location, awareness of digital currencies and decentralized finance (DeFi), and usage of digital currencies and decentralized finance (DeFi)), enabling the researcher to gain a comprehensive understanding of the factors that influence the phenomenon under investigation. Below are the set of research hypotheses this study will be investigating:

Hypothesis 0: There is no significant impact of the independent variables (age, gender, occupation, location, awareness of digital currencies and decentralized finance (DeFi), and usage of digital currencies and decentralized finance (DeFi)) on the dependent (behavioural intention) on the adoption of digital currency and DeFi in Nigeria.

Hypothesis 1: There is significant impact of age of customers on behavioural intention on adoption of digital currency and DeFi in Nigeria.

Hypothesis 2: There is significant impact of gender of customers on behavioural intention on adoption of digital currency and DeFi in Nigeria.

Hypothesis 3: There is significant impact of occupation of customers on behavioural intention on adoption of digital currency and DeFi in Nigeria.

Hypothesis 4: There is significant impact of location of customers on behavioural intention on adoption of digital currency and DeFi in Nigeria.

Hypothesis 5: There is significant impact of awareness of digital currencies and decentralized finance (DeFi) on behavioural intention on the adoption of digital currency in Nigeria.

Hypothesis 6: There is significant impact of usage of digital currencies and decentralized finance (DeFi) on behavioural intention on the adoption of digital currency in Nigeria.

1.6 Significance of the study

This study on Attitudes and perceptions Towards Cryptocurrencies and DeFi Adoption in Traditional Banking Services in Nigeria holds significant influence over the country's financial future. Unravelling public opinion offers a path for the smooth integration of decentralised financial technology into traditional banking, which promotes innovation, and also has the potential to catapult Nigeria to the forefront of financial innovation while also promoting financial inclusion, economic resilience, and positioning the country as a global leader in the adoption of cryptocurrencies and DeFi.

2 Related Work

2.1 Decentralized Finance and Cryptocurrency

Decentralized Finance (DeFi) encompasses financial services and products constructed on public blockchain networks, utilizing open-source code. Unlike traditional financial systems that rely on central authority such as banks, DeFi is self-sufficient and does not require middlemen. It proposes a paradigm change from old financial paradigms by harnessing the transparency and decentralization of blockchain technology. The primary purpose of DeFi is to decrease intermediaries in financial markets, increase the authenticity and speed of monetary transactions, reduce frictions and improve access to financial services (Bekemiere,2023). When a decentralized peer-to-peer network becomes predominant, no single entity possesses sufficient monopoly power to control and exclude others, ensuring that all participants can enjoy the network effects, expanding transaction possibilities for everyone (Chen & Bellavitis,2019). In contrast to centralized systems, this decentralized structure encourages fairness, robustness, and a shared advantage. DeFi apps can democratize finance, but because they are built on permissionless and pseudonymous blockchains, they pose obstacles such as tax enforcement issues and higher risks of financial misconduct, which harm the broader economy (Makarov & Schoar,2022). Addressing these issues is critical for the responsible growth of DeFi, ensuring that it adheres to legal frameworks and ethical norms to realize its potential for financial inclusion without jeopardizing the integrity of the broader financial system.

Cryptocurrency is a digital currency that operates on a decentralized crypto network dispersed across many computers and protected by encryption. This design protects authenticity and avoids double-spending, making it very resistant to fraud and counterfeiting

(Gowda & Chakravorty). Because no single body controls the network, it is more secure, contributing to the trust and trustworthiness of cryptocurrencies in digital transactions. By acting as a peer-to-peer medium of exchange, cryptocurrency aims to replace traditional printed cash. Since its debut in 2009, Bitcoin, the first and largest cryptocurrency, has seen an incredible rise in value, establishing itself as a transformational force in the financial world. Because of Bitcoin's success, additional cryptocurrencies, known collectively as altcoins, have emerged, each with its own set of features and benefits (Hossaion, S. et al. 2023). As a result, the cryptocurrency market has become dynamic and varied, serving a wide range of users' tastes and wants. Bitcoin stood for 41% of total market capitalization at the start of 2022, approximately 2.1 times that of Ethereum, the second largest cryptocurrency (Auer, R. et al. 2022). The adoption and acceptability of cryptocurrency have grown, as evidenced by the following indicators: market value, anticipated number of users, and transaction volumes (Alzahrani & Daim, 2019).

2.2 The Impact of Cryptocurrencies Adoption on Traditional Banking Services

Cryptocurrency disruptions mostly target banking systems, coinciding with their fundamental objectives of allowing individual payments, asset transfers, and service transactions, unlike traditional banking, cryptocurrencies function without the need for intermediaries, speeding financial procedures and enhancing efficiency (Adela, 2023). The rapid rise of cryptocurrencies raises critical questions about their impact on the financial system, sparking worries and debate about the consequences for established financial structures and regulatory frameworks. Increasing investor demand for cryptocurrencies raises the question of how financial institutions will meet the resulting increase in demand for intermediary services (Auer, R. et al., 2023). In terms of speed, cryptocurrency transactions have a substantial edge over typical bank transactions. While Bitcoin transactions normally take a few minutes to execute and reach the recipient, regular bank transactions can take up to three days on average. This difference in speed is due to the decentralized nature of cryptocurrencies that use blockchain technology. Before reaching any form of destination, a basic bank transfer must transit via a labyrinthine chain of middlemen ranging from correspondent banks to custodial services (Gowda and Chakravorty, 2021). Traditional banks need consumers to go through significant paperwork and processes to verify their identities. Know your customer (KYC) processes create a significant strain on banks since they are costly, inefficient, and difficult for clients (Schlatt, V. et al. 2022). Cryptocurrencies, with their decentralized and pseudonymous nature, provide an alternate way. While still adhering to security precautions, they frequently deliver a more user-friendly experience by minimizing the need for substantial personal information. The trade-off between convenience and compliance is still an important consideration when assessing the applicability of KYC processes in both traditional banking and cryptocurrency systems.

The combination of conventional banks and cryptocurrencies holds the promise of permanently transforming the financial sector. This amalgamation offers enhanced security, greater financial inclusion, reduced transaction expenses, and improved efficiency by leveraging the strengths of both traditional banking and decentralized cryptocurrencies (Jana,

2023). Global interest in understanding and potentially implementing central bank digital currencies (CBDCs) has been reflected, with researchers investigating their implications and applications in the expanding world of digital currencies and financial technology. Since 2017, several countries have investigated (CBDC) plans, and a few are now testing the technology (Ghosh, A. et al. 2021).

2.3 Cryptocurrency in Nigeria

Bitcoin and other cryptocurrencies are becoming increasingly popular in Nigeria, particularly among the younger generation, who use them as a medium of exchange for buying and selling items, as well as a form of investing and saving funds. This trend demonstrates an increasing acceptance and use of digital currencies as viable transactional options. Between July 2022 and June 2023, the volume of crypto transactions in Nigeria increased 9% year on year to $56.7 billion (Reuters, 2023). Nigeria's Securities and Exchange Commission (SEC) issued a set of digital asset legislation in 2022, establishing an operational framework for crypto exchanges in the country (Greenfield, 2023). On February 5, 2021, the CBN published a letter barring all deposit money banks (DBM), non-bank financial institutions (NBFI), and other financial institutions (OFI) from trading with cryptocurrencies or enabling payments for cryptocurrency exchanges, with the Nigerian Deposit Insurance Corporation (NDIC) stating it will not offer customer protection or insurance for cryptocurrency transactions (Olorundare, J.K. et al. 2023). Despite the warnings, Bitcoin trade in Nigeria continues and grows in volume, despite regulatory restrictions. According to the Central Bank of Nigeria in 2021, cryptocurrency presents issues such as volatile foreign exchange rates, non-revenue generating assets, and a lack of regulation (Fakunmoju, S.K. et al. 2022). Despite the CBN's restrictions on traditional banks' involvement in digital currencies, individuals in Nigeria are not legally prohibited from using or trading in cryptocurrencies, creating a regulatory gap and allowing for decentralized financial activities outside of the traditional banking system. The Nigerian Securities and Exchange Commission (SEC) enacted digital asset legislation in May 2022, expanding control of cryptocurrencies. These guidelines require cryptocurrency exchanges to seek SEC permits to comply with certain standards and also explain the country's legal status of digital assets (Greenfield, 2023). Due to the restrictions placed on banks by the CBN, cashing out cryptocurrency for money in Nigeria is difficult, alternatives such as crypto-to-cash apps, brokers, and peer-to-peer marketplaces, on the other hand, provide answers by allowing users to trade digital currencies for local fiat. The Nigerian public has grown into the use of peer-to-peer for crypto transactions. P2P digital currency system permits electronic payments from one individual or entity to another while avoiding all types of financial institutions, it is extremely divisible, virtual, and independent of any higher authority, as opposed to fiat cash (Onyekwere, E.O. et al. 2023).

The Nigerian government is enthusiastic about central bank digital currencies (CBDCs) and has launched eNaira to improve financial inclusion and streamline remittances (Greenfield, 2023). This demonstrates a proactive approach to leveraging digital currencies for greater economic accessibility and more efficient cross-border transactions. The eNaira demonstrates Nigeria's acknowledgement of the revolutionary potential of blockchain and digital currencies,

laying the groundwork for further growth and development in the broader world of financial technology.

2.4 Factors affecting the adoption of cryptocurrencies.

Several factors influence cryptocurrency acceptability. The adoption of cryptocurrency infrastructure is motivated by perceived deficiencies in traditional financial systems, where the growth of Bitcoin infrastructure is related with decreased faith in banks and the financial system., this trend is observed in conjunction with country-level inflation crises experienced by residents in specific regions (Saiedi, E. et al. 2020). Ironically, more political stability makes it less likely that blockchain technology will be embraced fast (Tak, 2023). Political stability may stymie blockchain adoption in some regions due to perceived hazards to established arrangements. In contrast, politically unstable countries quickly adopt blockchain for decentralization, tackling corruption and inefficiencies. The absence of significant accumulation or insufficient disposable income as a result of unemployment will hinder cryptocurrency adoption in any country (Hai, N.H. et al. 2023). Limited financial resources constrain individuals' ability to invest in or use digital assets. Consumers are wary about blockchain-based cryptocurrencies due to an increase in online frauds and the lack of a regulatory framework, it is more assertive when the government's backing is strong (Sagheer, N. et al. 2022). Government approval instils trust in customers, alleviating security worries and lending credibility to the use of blockchain-based cryptocurrencies. Concretely, a Bitcoin knowledge path is outlined, and users' progress through it is what directly influences the adoption decision, implying that additional education among individuals may surely drive further acceptance and, thus, market penetration (García-Monleón, F. et al. 2023). The more individuals learn about cryptocurrencies, the more likely they are to use and accept them, highlighting the critical importance of education in boosting adoption and broadening the market reach of cryptocurrencies. Interest in Bitcoin has been biggest in the most financially developed areas (Saiedi, E. et al. 2020). Developed financial environments are likely to promote higher knowledge, understanding, and infrastructure, making citizens of these areas more likely to engage with and invest in Bitcoin. Countries with higher educational attainment can be expected to adopt cryptocurrencies more quickly due to technological skills and knowledge presence (Bhimani, A.et al. 2022). Countries with a well-educated population are more suited to comprehend, value, and implement digital currencies. This hastens their acceptance when compared to regions with lower educational levels and a lack of requisite skills and awareness.

2.5 Theoretical approaches to understanding the adoption of technology.

The various theoretical lenses contribute to a full understanding of this complex and dynamic phenomenon of cryptocurrency adoption, considering elements like economic theories, technological viewpoints, and behavioural models. The TAM investigates beliefs about a product or technology that is being adopted using two measures: perceived ease of use (PEOU) and perceived usefulness (PU) (Bommer, W.H. et al. 2023). Davis (1989) created the hypothesis. It clarifies that potential consumers or the general public recognize and use

financial system technology and innovation (Fakunmoju, S.K. et al. 2022). Individual perceptions about perceived ease of use are dependent on a variety of computer-related factors; such factors include, for example, computer playfulness (Nadeem, M.A. et al. 2021). People's opinions of how simple it is to use a computer, and hence technologies such as cryptocurrency, are influenced not just by functional features, but also by subjective experiences and positive engagement, such as playfulness during computer interactions. Fast and decentralized transaction processing has been noted as having a favourable impact on cryptocurrency's perceived utility (García-Monleón, F. et al. 2023). Transaction efficiency and decentralization increase the overall utility of cryptocurrencies, making them more desirable to users. Consumers select a service based on its perceived utility or their belief that it would improve their usage of technology (Namahoot, K.S. et al. 2021). The perceived benefits and enhancements the service provides to their technology usage influence their decision, demonstrating a user-centric approach in which individuals choose solutions that align with their needs and contribute positively to their overall technological interactions.

The desire to accept technology-based innovation is heavily influenced by an individual's attitude towards behaviour, subjective norm, perceived behavioural control, and level of awareness (Ramachandran, T. et al. 2022). Attitude expresses one's positive or negative assessment of accepting the innovation, subjective norm considers the influence of social factors such as other people's opinions. Numerous studies have affirmed the favourable connection between the perceived ease of use and the intention to participate in specific behaviours in diverse research contexts (Nadeem, M.A. et al. 2021). When people perceive technology to be simple to use, it tends to positively influence their behavioural intentions, highlighting the critical importance of user-friendly interfaces and streamlined procedures in developing favourable attitudes and intentions towards technological innovation adoption.

3 Research Methodology

3.1 Introduction

In this chapter, research methodology is discussed meticulously in order to develop a robust framework for assessing study outcomes. Among the topics covered are population size determination, data collection methods, variables selection criteria, statistical models' application, research design, sampling size and sampling technique used, the research instrument used, as well as a thorough exploration of ethical issues.

3.2 Research Design

Descriptive research methodology was chosen for this study due to its wide application, especially in the analysis of variable interactions. This methodology is acknowledged for its ability to offer an extensive and in-depth investigation of the connections and interactions between various factors. This study intends to provide a comprehensive analysis and interpretation of the observed phenomena by selecting a descriptive research design, which will examine and provides insight into Nigerians knowledge, views and behaviours about digital currencies and decentralized finance (DeFi) systems.

3.3 Population of Study

The study's population comprises individuals from diverse walks of life in Nigeria based on Age, Gender, Employment Status and Settlement Type. The population consisted of 101 respondents selected as the target population for the questionnaire through a random sampling method.

3.4 Sample Size and Sampling Techniques

The study included 101 participants, comprising 40 females and 61 males. Participants were categorized by age, gender, occupation, and location. The age groups represented were 18-29, 30-39, and 40-49. Occupations included employed, self-employed, student, unemployed, and intern. The participants were situated in both urban and rural environments. Participants were selected based on their willingness to provide insights into their knowledge, experiences, and perceptions related to digital currencies. Inclusion criteria involved individuals aged 18-49, residing in Nigeria, and possessing varied occupations.

3.5 Data Collection

3.5.1 Survey Instrument

A detailed structured survey questionnaire was meticulously designed to collect both quantitative and qualitative data on a variety of topics, including participants' familiarity with digital currencies, payment practices, opinions on the future of cryptocurrencies, and perceptions of security and trust. The poll was distributed online via email, providing efficient and comprehensive distribution. The data-collecting phase lasted one week, giving us plenty of time to collect detailed information from the participants. This method sought to gain a comprehensive knowledge of participants' opinions on the junction of decentralized finance, cryptocurrencies, and traditional banking services.

Survey Questions
1. Age 2. Gender 3. Occupation 4. Location 5. Are you familiar with digital currencies like Bitcoin and Ethereum? 6. Have you ever made payment with any digital currency? 7. "Do you think cryptocurrencies and DeFi will replace traditional banking services? on a scale of 1 to 5? (1 = Extremely unlikely, 5 = Extremely likely)" 8. "How important do you think it is for traditional financial institutions to incorporate DeFi and cryptocurrency services, on a scale of 1 to 5? (1 = Not important at all, 5 = Extremely important)"

9. "Would you be more likely to use cryptocurrencies and DeFi if they were subject to regulation by governmental agencies or traditional financial institutions? on a scale of 1 to 5? (1 = Extremely unlikely, 5 = Extremely likely)"

10. "When compared to traditional banking services, how secure do you believe cryptocurrency and DeFi to be? on a scale of 1 to 5? (1 = Not secured at all, 5 = Extremely secured)"

11. "How much do you trust websites and services that deal with cryptocurrencies? on a scale of 1 to 5? (1 = Complete lack of trust, 5 = High level of trust)"

12. "How would you rate the quality of user experience and customer service in cryptocurrency-related services as opposed to traditional banking services? on a scale of 1 to 5? (1 = Extremely bad, 5 = Extremely good)"

13. "Do you believe that investing in cryptocurrencies is a viable investment choice? on a scale of 1 to 5? (1 = Not viable at all, 5 = Extremely viable)"

14. "How do you see the whole financial system in Nigeria being affected by cryptocurrencies? on a scale of 1 to 5? (1 = Extremely negatively, 5 = Extremely positively)"

To create the variables VAR1 and VAR2 for the regression model, the knowledge or lack thereof the participants had on digital currencies was considered based on the responses obtained from the fifth item in the survey instrument, while the sixth item in the survey instrument was pivotal to determine usage.

3.5.2 Recruitment Process

Participants were recruited through emails. Online platforms, including social media and forums, were utilized, alongside targeted outreach in urban and rural areas. The recruitment process ensured diverse representation across demographics.

3.5.3 Ethical Considerations

Participants were briefed on the study's objectives, and they provided informed consent, emphasizing the voluntary nature of participation with the option to withdraw at any point. By assigning distinct identities, privacy was protected, and anonymity and confidentiality was guaranteed. To preserve ethical norms, agreement from legal guardians was acquired for individuals who were younger than eighteen. The study's research team placed a high priority on openness and participant welfare, adhering to ethical standards and upholding each participant's rights at every stage of the investigation.

3.6 Validity and Reliability of the Research Instrument

An evaluation is conducted to ensure that the measurements taken by the research instrument are consistent with the intended objectives of the study. To assess the instrument's reliability, the Cronbach's alpha method was employed, with a reliability coefficient above 0.70 being considered satisfactory. By achieving a Cronbach alpha score of 70 or higher, the reliability of the questionnaire and conformity to the specified criteria can be determined.

3.7 Data Analysis Techniques

For the comprehensive analysis of the data, this study employs descriptive and empirical statistics. Descriptive statistics will provide an overview of the responses obtained from the targeted respondents. By using a frequency count, these responses can be quantified and analysed as a percentage. Further analysis will be done to the data gathered from the respondents through Factor Analysis, Normality Test for the distribution, Independent Sample T-Test, and ANOVA Analysis. The study utilizes Regression Analysis to ascertain if there is a correlation between Behavioural Intention (BI) and the demographic characteristics of the examined population.

3.7.1 Regression Model

In this analysis, we aim to determine how change in Age, Occupation, Gender, Location, VAR1 or VAR2 is associated with changes in the BI variable. Hence, the regression model is given as

$$BI = \beta0 + \beta1*Age + \beta2* Occupation + \beta3*Gender + \beta4* Location + \beta5* VAR1 + \beta6* VAR2 + \varepsilon$$

Where $\beta0 \ldots \beta6$ are the coefficients of the regression model and ε represents the regression residual or error term.

4 Design Specification

To extract meaningful insights from the responses provided by our respondents, a series of statistical analyses will be employed. The following outlines the statistical methods utilized during the data analysis process. These methods will help achieve the aims and objectives of this study.

4.1 Software Specification

A Windows-based software programme called SPSS (Statistical Package for Social Sciences) offers an intuitive graphical interface for managing data and doing statistical analysis. SPSS simplifies and automates a large amount of the analytical process with its user-friendly menus and simple dialogue boxes. With its variety of statistical methods, data manipulation capabilities, and visualisation choices, this programme is extensively utilised in social science research as well as other domains to enable thorough and effective data analysis. The software version 26 was used for this research.

4.2 System Design

Factor Analysis: This statistical method involves identifying and comprehending the underlying structure or pattern of a set of variables. By grouping related variables into a smaller

number of factors, the dimensionality of the dataset is reduced. These factors, though unobservable, explain the variance among the observed variables.

Reliability Test: This statistical analysis assesses the internal consistency and reliability of a set of measurement items or variables. Its purpose is to determine if items within a test or scale consistently measure the same underlying construct.

Compute Behavioural Intention (BI) Variable: Utilizing the "Compute Variable" function, new variables are created by performing mathematical operations or transformations on existing variables. This powerful tool aids in generating new variables based on the values of existing ones, facilitating data manipulation and analysis.

Descriptive Statistics: This method provides insights into the central tendency, variability, and distribution of the data. For the BI variable, which is continuous, measures of central tendency such as Mean, Minimum, and Maximum will be analysed.

Normality Test for BI Variable: A statistical tool to assess if a dataset approximates a normal distribution. This is crucial for the validity of parametric statistical tests involving scale data.
Independent Samples T-Test: This statistical hypothesis test assesses whether there is a notable difference in means between two distinct groups. The analysis will focus on the Gender and Location variables to identify significant distinctions in the means of the two scales.

ANOVA Analysis: Analysis of Variance assesses differences among the means of two or more groups or treatments in a dataset. It determines if there are statistically significant variations in group means. The Age and Occupation variables will be analysed to identify significant differences between the means of the scales in these variables.

Regression Analysis: This statistical method quantifies the link between changes in the independent variables and corresponding changes in the dependent variable. In this analysis, the goal is to determine how changes in Age, Occupation, Gender, Location, VAR1, or VAR2 are associated with changes in the BI variable.

5 Implementation

In the culminating stages of the research implementation, a comprehensive process was undertaken to transform the raw questionnaire responses into meaningful and analysable data. This involved downloading the responses from the Google Drive platform and meticulously pre-processing them using Microsoft Excel. The pre-processing phase played a crucial role in standardizing the dataset, where responses were encoded into numerical values for consistency and ease of statistical analysis. Following this, the prepared dataset seamlessly transitioned into the Statistical Package for the Social Sciences (SPSS) software, a powerful tool for conducting advanced statistical analyses.

The encoding process specifically targeted nominal and ordinal measures to ensure uniformity and reliability in subsequent statistical examinations. The subsequent analytical

phase encompassed a multifaceted approach, starting with Factor Analysis, a statistical technique designed to unveil the underlying structure or patterns within a group of variables. A reliability test was utilized to evaluate the internal consistency of measurement items, offering insights into the reliability of the gathered data.

A pivotal aspect of the analysis was the computation of the Behavioural Intention (BI) variable, shedding light on participants' inclinations and attitudes. Descriptive statistics were then applied to offer a concise summary of the dataset, providing quick, informative coefficients that illuminated central tendencies and variabilities within the data.

Further scrutiny involved normality tests for the BI variable, ensuring its adherence to statistical assumptions. The Independent Samples T Test was utilized to explore potential differences based on gender and location, while ANOVA analysis delved into variations associated with age and occupation. These steps were integral in discerning statistically significant differences between groups.

Finally, Regression Analysis was deployed to unravel the intricate relationships between changes in the BI variable and various demographic factors, including Age, Occupation, Gender, Location, VAR1, or VAR2. This thorough analytical framework not only reflects the dedication to extracting nuanced insights from the dataset but also underscores the robustness of the research methodology in providing a solid foundation for drawing conclusive findings. The meticulous attention to each analytical step ensures the reliability and validity of the research outcomes, contributing significantly to the depth and comprehensiveness of the study.

6 Evaluation

The survey's goal was to elicit information on people's thoughts and attitudes about the use of cryptocurrencies and decentralised finance (DeFi) in traditional banking services. The questionnaire included questions on age, gender, occupation, and location. Furthermore, participants were asked about their acquaintance with digital currencies, payment experiences with them, and thoughts about cryptocurrencies and DeFi potentially replacing traditional banking services. For several questions, the Likert scale was used, which provided a more nuanced picture of respondents' views. The poll was distributed online, and 101 valid replies were received from individuals from diverse demographics.

The acquired data was subjected to a thorough analysis using IBM SPSS. To extract useful information, several statistical approaches were used. To uncover underlying structures and trends in the dataset, Factor Analysis was employed to assess the internal consistency of measurement items, while a Reliability Test was conducted to establish whether the items within the scale consistently measure the same underlying construct. The Behavioural Intention (BI) variable was computed using complex mathematical processes, yielding a synthesised metric for study. Descriptive statistics provided insights about the BI variable's central tendency, variability, and distribution. The dataset's appropriateness for parametric statistical tests was established using normality testing. The Independent Samples T-Test examined means between groups, whereas the ANOVA Analysis investigated differences between several groups. Finally, Regression Analysis was used to model associations between the dependent variable (BI) and the independent variables (Age, Occupation, Gender, Location, VAR1 and VAR2).

6.1 Factor Analysis

The Factor Analysis yielded a single significant component, explaining approximately 51.9% of the total variance. This suggests that a predominant underlying structure or pattern exists in respondents' perceptions regarding cryptocurrencies and DeFi adoption in traditional banking services. The strong KMO value of 0.874 and the statistically significant Bartlett's test of sphericity, as presented in Table 1, confirm the strength of the constructed model. The concise structure implies that the surveyed variables align closely, potentially reflecting a coherent attitude or perception among respondents. The Scree plot in Figure 1 indicates that only one component, with an Eigenvalue above 1, is extracted. This suggests a dominant underlying structure in the dataset. Figure 2 reinforces this, showing that the single extracted component explains about 51.9% of the total variance. This signifies a strong, unified pattern among variables, enhancing interpretability and utility in understanding respondents' views on cryptocurrencies and DeFi adoption in traditional banking services.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.874
Bartlett's Test of Sphericity	Approx. Chi-Square	315.193
	df	28
	Sig.	.000

Table 1:. KMO and Bartlett's Test of Sphericity

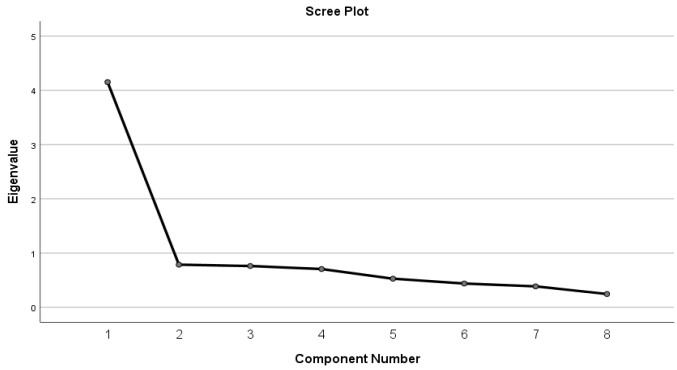

Figure 1:. Scree Plot show the number of extracted factor or component

Total Variance Explained			
Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	4.153	51.911	51.911
2	.786	9.821	61.733
3	.761	9.509	71.241
4	.705	8.813	80.054
5	.527	6.590	86.645
6	.438	5.476	92.120
7	.386	4.819	96.940

8	.245	3.060	100.000

Table 2:. Variance explained by components

6.2 Reliability Test

The Reliability Test, as indicated by Cronbach's Alpha of 0.862, underscored the trustworthiness of the survey instrument. This reliability coefficient surpassed the acceptable threshold of 0.70 as shown in table 3 below, emphasizing the internal consistency of the measurement items. This suggests that the questions in the survey consistently measured the same underlying construct, reinforcing the validity of the instrument in capturing respondents' views on cryptocurrency adoption in traditional banking services.

Reliability Statistics	
Cronbach's Alpha	N of Items
.862	8

Table 3:. Reliability Analysis Statistics

6.3 Descriptive Statistics

Descriptive Statistics provided a nuanced understanding of respondents' sentiments. With 101 valid responses, the average Behavioural Intention (BI) score of 3.33 as shown in table 4 fell within the "Neutral" range on the Likert scale as shown in table 5 below. The small standard deviation (0.9) indicated minimal dispersion around the mean, suggesting homogeneity in respondents' neutral stance. The range of responses, from "Strongly Disagree" to "Strongly Agree," further illustrated the diversity of opinions among participants. These insights help contextualize the overall sentiment regarding cryptocurrency adoption. The range of values is shown in the table 5 below

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Behavioral Intention	101	1.00	5.00	3.3255	.91704
Valid N (listwise)	101				

Table 4:. Descriptive Statistics for the computed Behavioral Intention (BI) variable

In order to determine what the mean value of 3.3255 implies from the five measures from the Likert scale, the range for the five answer statements in the Likert scale measure calculated as shown below:

Range = (Max Value – Min Value)/Total Number of Measure = (5 – 1)/5 = 4/5 = 0.8

The estimate ***Range*** is then calculating the range of values in each scale measure as represented in table 5.

Scale Value (SV)	Scale Measure	Estimating Range for each SV	Lower Bound	Upper Bound	Estimated Range
1	Strongly Disagree	1 1 + 0.8 = 1.8	1	1.8	1 - 1.8
2	Disagree	0.1 + 1.8 = 1.9 0.8 + 1.8 = 2.6	1.9	2.6	1.9 - 2.6
3	Neutral	0.1+2.6 = 2.7 0.8 + 2.6 = 3.4	2.7	3.4	2.7 – 3.4
4	Agree	0.1 + 3.4 = 3.5 0.8 + 3.4 = 4.2	3.5	4.2	3.5 – 4.2
5	Strongly Agree	0.1 + 0.4 = 4.3 0.8 + 4.2 = 5	4.3	5	4.3 - 5

Table 5:. Range Estimate for all five-answer statement in the Likert scale measure

6.4 Normality Test

The Normality Test, based on the Kolmogorov-Smirnov test and histogram analysis shown in table 6 and figure 2 respectively, provided assurance that the dataset approximates a normal distribution. The p-value above 0.05 and the visual representation of a normal distribution in the histogram support the assumption required for parametric statistical tests. This ensures the validity of subsequent analyses, contributing to the reliability of the study's findings.

Tests of Normality						
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
Behavioral Intention	.055	101	.200*	.984	101	.243

Table 6:. Test for Normality summary table

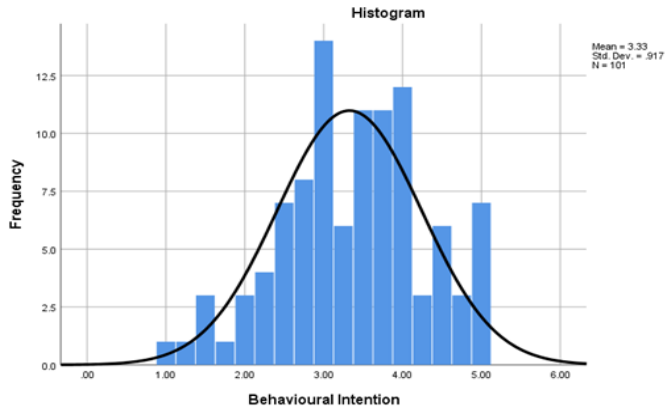

Figure 2:. Histogram chart for Behavioural Intention variable with normal distribution curve

6.5 Independent Samples T-Test

6.5.1 H1: There is a significant difference in Behavioural Intention (BI) between Male and Female Respondents

An independent sample T-test was conducted to compare the difference in the means of behavioural intentions for Male and Female. There were no significant differences (t (73) = .395, p = .694) in the scores with mean score for Male (M = 3.30, SD = .85) and Female (M = 3.37, SD = 1.02). The magnitude of the differences in the means (mean difference = 0.77, 95% CI: -.31 to .46) was very small. Hence, H1 was not supported and this implies that, on average, gender did not influence respondents' behavioural intentions regarding cryptocurrency adoption. The equality of variance assumption was not satisfied, emphasizing the need for nuanced interpretation based on this finding. Tables 7 and 8 below show the summary output of independent samples t-test for BI and Gender variables.

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Behavioral Intention	Female	40	3.3719	1.01609	.16066
	Male	61	3.2951	.85331	.10926

Table 7:. Computed Behavioral Intention (BI) Statistics for Male and Female Groups

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Behavioral Intention	Equal variances assumed	1.278	.261	.410	99	.683	.07679	.18736	-.29496	.44855
	Equal variances not assumed			.395	73.233	.694	.07679	.19429	-.31040	.46399

Table 8:. Independent Samples T–Test comparing the means of the male and female gender

6.5.2 H1: There is a significant difference in Behavioral Intention (BI) between Rural and Urban Settlers

An independent sample T-test was conducted to compare the difference in the means of behavioral intentions for Urban and Rural Settlers. There were no significant differences (t (98) = .30, p = .765) in the scores with mean score for Urban (M = 3.34, SD = .83) and Rural (M = 3.27, SD = 1.27). The magnitude of the differences in the means (mean difference = .07, 95% CI: -.41 to .54) was very small. Hence, H1 was not supported and this implies that, on average, location did not influence respondents' behavioral intentions regarding cryptocurrency adoption. The equality of variance assumption was satisfied, emphasizing the need for nuanced interpretation based on this finding. Tables 9 and 10 below show the summary output of independent samples t-test for BI and Location variables.

Group Statistics					
	Location	N	Mean	Std. Deviation	Std. Error Mean
Behavioral Intention	Urban	82	3.3430	.83329	.09202
	Rural	18	3.2708	1.27349	.30017

Table 9:. Computed Behavioral Intention (BI) Statistics for Urban and Rural

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Behavioral Intention	Equal variances assumed	12.032	.001	.300	98	.765	.07215	.24071	-.40554	.54985
	Equal variances not assumed			.230	20.308	.821	.07215	.31395	-.58211	.72641

Table 10:. Independent Samples T–Test comparing the means of the Urban and Rural settlers

6.5.3 Summary of the Independent Samples T-Test Analysis

The Independent Samples T-test compared the mean Behavioral Intention (BI) scores between genders and urban-rural locations. The non-significant p-values (0.683 for gender and 0.821 for location) indicated no significant differences in BI scores between these groups. This implies that, on average, gender and location did not influence respondents' behavioral intentions regarding cryptocurrency adoption.

6.6 ANOVA Analysis

6.6.1 H1: There are significant differences behavioral intention (BI) across different Age groups.

Divergence in hypothesis tests for Behavioral Intention (BI) was observed across distinct age groups, with participants categorized into three groups: Group 1 (18-29), Group 2 (30-39), and Group 3 (40-49). ANOVA results indicated no significant differences in Behavioral Intention (BI) scores among these groups ($F_{2, 98} = 12.574$, $p = .081$). Given the lack of significance in Levene's Statistics, assumptions were made regarding the equality of variance. Post-hoc comparisons using Tukey HSD were employed to examine intergroup differences. The analysis revealed that the mean score for the 18-29 age group ($M = 3.45$, $SD = .89$) did not significantly differ from the 30-39 age group ($M = 2.98$, $SD = .95$) and the 40-49 age group ($M = 3.17$, $SD = .69$). These mean differences were not statistically significant within the 0.05 confidence interval. Summarized results of the One-Way ANOVA are presented in Tables 11, 12, and 13.

Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
Behavioral Intention	Based on Mean	.195	2	98	.823
	Based on Median	.446	2	98	.642
	Based on Median and with adjusted df	.446	2	96.468	.642
	Based on trimmed mean	.206	2	98	.814

Table 11:. Levene Test of Homogeneity of Variances

ANOVA					
Behavioral Intention					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.198	2	2.099	2.574	.081
Within Groups	79.899	98	.815		
Total	84.096	100			

Table 12:. ANOVA Analysis Summary for different Age groups

Descriptives						
Behavioral Intention						
					95% Confidence Interval for Mean	
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound
18-29	73	3.4503	.89286	.10450	3.2420	3.6587
30-39	25	2.9800	.94764	.18953	2.5888	3.3712
40-49	3	3.1667	.68845	.39747	1.4565	4.8769
Total	101	3.3255	.91704	.09125	3.1445	3.5065

Table 13:. Computed Behavioral Intention (BI) Statistics for different Age Groups

6.6.2 H1: There are significant differences behavioral intention (BI) across different Occupation groups.

The hypothesis tests of the Behavioral Intention (BI) of the respondents differ across different Occupation groups. Participants were divided into four groups (Group 1: Student, Group 2:

Unemployed, Group 3: Self Employed, Group 4: Employed). The ANOVA results suggest that Behavioral Intention (BI) scores of these groups differ significantly (F3, 96 = 1.36, p = .258). Given the lack of significance in Levene's Statistics, it was assumed that the variances were equal. In order to examine disparities among groups, post-hoc comparisons were conducted using Tukey's Honestly Significant Difference (HSD) test. The analysis revealed that the mean score for the student group (M = 3.48, SD = .98) did not exhibit a statistically significant difference from the Unemployed group (M = 3.67, SD = .69), Self-Employed group (M = 3.40, SD = .83), and Employed group (M = 3.04, SD = .99). These mean differences did not reach statistical significance at the 0.05 confidence interval. Tables 14, 15, and 16 below succinctly summarize the results of the One-Way ANOVA.

Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
Behavioral Intention	Based on Mean	.519	3	96	.670
	Based on Median	.510	3	96	.676
	Based on Median and with adjusted df	.510	3	91.746	.676
	Based on trimmed mean	.522	3	96	.668

Table 14:. Levene Test of Homogeneity of Variances

ANOVA					
Behavioral Intention					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.430	3	1.143	1.364	.258
Within Groups	80.461	96	.838		
Total	83.891	99			

Table 15:. ANOVA Analysis Summary for different Occupation groups

Descriptives						
Behavioral Intention						
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Student	24	3.4844	.98447	.20095	3.0687	3.9001
Unemployed	3	3.6667	.68845	.39747	1.9565	5.3769
Self Employed	45	3.4028	.83338	.12423	3.1524	3.6532
Employed	28	3.0446	.99374	.18780	2.6593	3.4300
Total	100	3.3300	.92054	.09205	3.1473	3.5127

Table 16:. Computed Behavioral Intention (BI) Statistics for different Occupation Groups

6.6.3 Summary of the ANOVA Analysis

The ANOVA Analysis examined mean BI scores across different scales of the Age and Occupation variables. Non-significant p-values (0.081 for Age and 0.258 for Occupation) suggested that, despite variations in mean scores, these demographic factors did not exert a statistically significant impact on respondents' behavioral intentions. These results emphasize the importance of considering other factors beyond demographics in understanding attitudes toward cryptocurrency adoption.

6.7 Regression Analysis

The dependent variable (Behavioural Intention) was regressed on predicting variables of Age, Gender, Occupation, Location, VAR1 and VAR2. The independent variables significantly predict Behavioural Intention, F (6, 93) = 3.173, p = .007, This suggests that the six factors examined exert a substantial influence on behavioural Intention, the Hypothesis0 is rejected. Moreover, the R^2 = .170 depicts that the model explains 17% of the variance in Behavioural Intention. Additionally, the coefficients were further assessed to ascertain the influence of each of factors on the dependent variable (Behavioural Intention). H1 evaluates whether Age significantly impact Behavioural Intention. The results revealed that Age does not significantly impact on Behavioural Intention (B = -.290, t = -1.612, p = .110). Hence, H1 was not supported. H2 evaluates whether Gender significantly impact Behavioural Intention. The results revealed that Gender does not significantly impact on Behavioural Intention (B = -.126, t = -.612, p = .542). Hence, H2 was not supported. H3 evaluates whether Occupation significantly impact Behavioural Intention. The results revealed that Occupation does not significantly impact on Behavioural Intention (B = -.098, t = -1.158, p = .250). Hence, H3 was not supported. H4 evaluates whether Location significantly impact Behavioural Intention. The results revealed

that Location does not significantly impact on Behavioural Intention (B = -.194, t = -.814, p = 417). Hence, H4 was not supported. H5 evaluates whether VAR1 significantly impact Behavioural Intention. The results revealed that VAR1 has a significantly and positive impact on Behavioural Intention (B = .900, t = 2.913, p = .004). Hence, H5 was supported. H6 evaluates whether VAR2 significantly impact Behavioural Intention. The results revealed that Age does not significantly impact on Behavioural Intention (B = .153, t = .739, p = .462). Hence, H6 was not supported. The summary of the regression analysis and results are presented in tables 17, 18 and 19 below.

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.412[a]	.170	.116	.86535

Table 17:. Regression model summary table

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.251	6	2.375	3.172	.007[b]
	Residual	69.640	93	.749		
	Total	83.891	99			

Table 18:. ANOVA Summary for the regression model

Coefficients[a]					
Model		Unstandardized Coefficients		Standardized Coefficients	t
		B	Std. Error	Beta	
1	(Constant)	2.474	.781		3.169
	Age	-.290	.180	-.165	-1.612
	Gender	-.126	.205	-.067	-.612
	Occupation	-.098	.085	-.118	-1.158
	Location	-.194	.238	-.081	-.814

	Are you familiar with digital currencies like Bitcoin and Ethereum? (VAR 1)	.900	.309	.295	2.913
	Have you ever made payment with any digital currency? (VAR 2)	.153	.207	.084	.739

Table 19:. Estimate Coefficients for the developed Regression analysis model

From the regression analysis implementation result, only the coefficients for the Intercept (β0) and VAR1 (β5) were statistically significant. Hence, the equation for the regression model defined in 3.7.1 can be rewritten as

$$BI = \beta 0 + \beta 5 * VAR1 + \varepsilon$$
$$BI = 2.474 + (0.9 * VAR1)$$

where $\beta 0$ = constant = 2.474
$\beta 5 = 0.9$

6.8 Discussion

The comprehensive analysis, encompassing Factor Analysis, Reliability Test, Descriptive Statistics, Normality Test, Independent Samples T-Test, ANOVA, and Regression Analysis, sheds light on diverse aspects of respondents' perceptions regarding cryptocurrencies and DeFi adoption in traditional banking services. The robustness of the dataset is evident through the thorough testing processes, ensuring reliability and validity. The homogeneity in responses, as revealed by the Normality Test, contributes to the credibility of the findings. Notably, the insights gleaned from regression analysis provide a nuanced understanding of the impact of independent variables on behavioural intentions. These results collectively offer valuable insights for stakeholders in the financial sector, guiding potential strategies for embracing digital currencies and decentralized finance. Additionally, the statistically insignificant differences across demographic variables highlight a broad consensus among respondents, emphasizing the need for nuanced approaches in integrating these innovative financial services. In summation, the findings revealed numerous important observations. The factor analysis found a single significant component that accounted for about 51.9% of the overall variation. The instrument's dependability was proven by the reliability test, which yielded a Cronbach's Alpha of 0.862. Descriptive statistics revealed that respondents were, on average, ambivalent towards the use of cryptocurrencies and DeFi in traditional banking services, with little variation in their views. Normality tests confirmed that the dataset has a normal distribution. The Independent Samples T-test and ANOVA revealed no significant gender or geographical differences. Regression analysis revealed that only VAR1 had a statistically significant impact on the Behavioural Intention variable, with the remaining factors having no statistically significant impact. The findings show that demographic parameters such as age, gender, occupation, and region have no effect on customers' behavioural intentions. However, understanding is crucial, implying that educational activities could offset any obstacles to bitcoin and DeFi adoption in the banking industry.

Interestingly, the research reveals awareness of digital currencies and DeFi (VAR1) as a critical factor impacting customers' behavioural intentions. The positive and significant impact of VAR1 shows that a higher degree of awareness correlates with a readiness to accept digital currencies in traditional banking services. This emphasises the significance of educational programmes and awareness campaigns to improve customers knowledge and acceptance of these evolving technologies. However, the regression model's minimal explained variation (17%) suggests that more undiscovered factors contribute to individuals' views towards digital currency adoption. This opens the door to more research into technological, sociological, and economic factors that may influence customer views. Overall, the study provides useful information for policymakers, financial institutions, and scholars navigating Nigeria's changing digital banking sector.

7 Conclusion and Future Work

In conclusion, the purpose of this study was to investigate the attitudes and views of Nigerians towards the adoption of cryptocurrencies and decentralized finance (DeFi) within the context of traditional banking services. We attempted to unravel the intricate interplay between customer attitudes and demographic factors such as age, occupation, gender, and geographical location using rigorous statistical analyses such as factor analysis, reliability tests, descriptive statistics, normality tests, independent samples T-tests, ANOVA analysis, and regression analysis. Two variables (VAR1 and VAR2) were created to capture the Behavioural Intensions of individuals. The findings demonstrate that demographic characteristics such as age, gender, geography, and employment have no significant effect on Behavioural Intention to embrace cryptocurrencies and DeFi in traditional banking services, as evidenced by the acceptance of null hypotheses. Future research should investigate additional aspects influencing customers' attitudes towards cryptocurrency adoption, with the goal of broadening understanding of societal, technological, and economic implications. Furthermore, a qualitative examination of consumer views and experiences may yield subtle insights into the underlying factors influencing behavioural intentions. As the cryptocurrency landscape evolves, constant study is required to adjust traditional banking strategies and policies to ensure consistency with customer preferences and the ever-changing financial ecosystem. The study advances our knowledge of the dynamics that are changing between traditional banking and new financial technology in Nigeria.

These findings can be used by policymakers, financial institutions, and researchers to create targeted interventions, instructional campaigns, and regulatory frameworks that allow the smooth integration of digital currencies and DeFi into the Nigerian banking scene. This study establishes the groundwork for further examination, giving a road map for future inquiries into the varied elements of cryptocurrency adoption across different worldwide contexts. The coordinated efforts of academia, industry, and regulatory agencies are critical for navigating the dynamic junction of traditional banking, cryptocurrencies, and DeFi in the Nigerian financial ecosystem. This study is a first step towards a more comprehensive understanding of the variables driving or impeding the adoption of digital currency and DeFi in Nigeria.

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