# Trust: The Must-Discuss in Nigeria's Stablecoin Fuss

A quantitative study on consumer adoption of new payment technologies, specifically focusing on Stablecoins in Nigeria, through the lens of trust as a multidimensional construct.

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# Abstract

The rapid adoption of cryptocurrencies globally underscores the urgent need to understand consumer behaviour towards new payment technologies, especially in regions like Nigeria, where usage rates are among the highest in the world. While substantial research has emerged regarding cryptocurrencies such as Bitcoin, there is a significant gap in understanding the adoption of Stablecoins, particularly their potential role as a payment method. This thesis therefore quantitatively examines how various dimensions of trust influence consumer attitudes and, subsequently, intentions to use USD backed Stablecoins as a payment method. Grounded in trust and substitution theories and conceptualised through the theory of Sociotechnical Systems, this research employs Partial Least Square - Structural Equation Modelling (PLS - SEM) to analyse survey data from Nigeria. The findings reveal not only that trust is paramount for the adoption of Stablecoins but also that trust in the underlying currency (USD) is as critical as trust in the blockchain technology itself. Contrary to expectations from substitution theory, the results indicate that trust in existing payment technologies positively correlates with the adoption of Stablecoins. This suggests that confidence in both new and existing systems is essential for embracing new financial technologies. Additionally, although some distrust in the Naira contributes to the interest in Stablecoins, it is far from being the major adoption driver. This challenges any narrative assuming that dissatisfaction with traditional systems and/or currencies is the primary driver of cryptocurrency adoption. Theoretically, this study consequently contributes with trust as a critical, multidimensional factor in adoption models. Practically, it advises businesses and retailers considering cryptocurrencies for payment to prioritise Stablecoins over more volatile alternatives due to the importance of currency trust. Furthermore, businesses are recommended to align marketing strategies with consumer trust levels in both innovative and traditional payment technologies, target customer segments that already trust conventional systems and overall utilise these insights to enhance consumer awareness.

**Keywords:** Cryptocurrency, Stablecoins, Trust, Consumer Adoption, Payment Technologies, Digital Payments, Nigeria, Substitution, Sociotechnical Systems, PLS-SEM, Financial Technology

# Preface and Acknowledgements

4th of January 2024, the flight took off from Stockholm Arlanda to Lagos, Nigeria. We stayed there as we were granted the Yinka Shonibare Scholarship (The Yinka Shonibare Thesis Scholarship - hhs.se - Handelshögskolan i Stockholm) at Stockholm School of Economics to conduct research with regards to our original thesis topic: Understanding crypto adoption, specifically its potential as a medium of exchange and its implications for retailers. For this topic, few countries would have been more relevant than Nigeria with its second highest cryptocurrency adoption worldwide (Chainanalysis, 2023). Moreover, on December 23, about two weeks before departure, the Nigerian government lifted the ban for financial institutions to hold custody for cryptocurrencies (which had been in place since February 2021) and consequently eradicated a major barrier to widespread consumer and business adoption of cryptocurrencies (Dzirutwe & Holmes, 2023). Therefore, the timing could not have been better nor more relevant. This was proved directly from scratch as an effectively non-existing network before departure rapidly grew exponentially as many different stakeholders showed great interest in the research topic and method. As a consequence, during this visit we managed to meet with more people, experts and industry leaders than we ever could expect. Admittedly, it was a challenging journey characterised by substantial gcultural differences as well as consistent moments of confrontation with the inherent implicit requirements of finding comfort in the discomfort. Nevertheless, the worthwhileness of this experience cannot be overlooked. To be provided with the opportunity of profound field study work for an entire month related to cryptocurrencies and new payment technologies, in a unique geographical and cultural setting, was a truly invaluable and an unforgettable opportunity.

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# 1. Introduction

The introduction begins with highlighting the background to the topic and overall research pursuit. This is then followed by identifying essential research gaps and thereafter, the key purpose and specific research question of this study. Naturally following the purpose and research question, the expected contributions of answering this question are presented. Finally, central delimitations are highlighted.
**OBS:** For readers not familiar with key terminology used throughout this thesis, see Appendix A where clear definitions are highlighted.

## 1.1 Background

The ways of paying for goods and services, online and offline, have evolved dramatically in the last decade (McKinsey & Company, 2021). In all the new innovation waves, from the introduction of the credit card to the digital bank transfer such as Paypal and later to the mobile wallets like Apple and Android Pay, it has been of great interest, both from an academic and business standpoint, to understand the drivers of adoption of these new digital payment technologies among consumers (Kim, 2021; Sahi et al., 2021; Chaveesuk et al., 2021; Aiazbekov, 2023). Today, the new innovation wave is embodied by the disruptive nature of cryptocurrencies. Hence, it is now of equal or even bigger interest to understand what will drive consumer adoption of cryptocurrencies as a payment choice (Sagheer et al., 2022; Restuputri et al., 2023; Aiazbekov, 2023).

The concept of digital currencies is not itself a new phenomenon. In fact, 15 years ago the first, still dominant, peer-to-peer open source digital currency was created in the form of Bitcoin (Nakamoto, 2008). Emerging from distrust in the economic system and financial institutions in the midst of the financial crisis, Bitcoin served the promise of an improved alternative, decentralised, medium of exchange (Swartz, 2018). Since the advent of Bitcoin, a plethora of new cryptocurrencies have emerged from the adoption of blockchain technology, with the current ecosystem consisting of more than 10 000 cryptocurrencies (Coingecko, 2024). While the adoption of cryptocurrencies is both prominent and undeniable with hundreds of millions of users (Statista, 2023), the question of interest from a retailing perspective is the potential of cryptocurrencies to fulfil the original, promised, use case: Functioning as a new form of money - a widely used currency for transactions (Nakamoto, 2008).

However, unlike other payment innovations when the only purpose is payments exclusively, cryptocurrencies represent several use cases such as savings, investments, trading, speculation or transactions (Baur et al., 2018). Therefore, in order to better capture the function of money and payments, this research attempt is to ensure a concentrated focus on Stablecoins linked to the US dollar. Stablecoins represent cryptocurrencies that are pegged to an underlying asset (e.g USD) and operate on a decentralised ledger (the blockchain) similar to any cryptocurrency (Li et al., 2024). Hence, assuming the underlying backed asset is inherently stable, Stablecoins solve the main issues with using cryptocurrencies such as Bitcoin for payments by eliminating the risk of high and unpredictable volatility (Lyons & Viswanath-Natraj, 2023). Consequently, to maximise the exposure to a high potential context of using US-dollar pegged Stablecoins for transactions, the research is conducted in Nigeria, as the country with the second highest cryptocurrency adoption rate in the world, where Stablecoin transactions are dominating the transaction volume (Chainanalysis, 2023).

The value of understanding the key drivers of this adoption is not limited to the area of academics but is central in terms of practical implications for businesses. For retailers in particular, embracing novel technological innovations and solutions is of paramount importance to stay relevant and competitive (McKinsey & Company, 2021; Niemeier et al., 2013). Hence, and more specifically, it is very relevant for retailers to pursue deeper understanding of what may represent the future preferred choice of payment among customers in order to gain a competitive edge in the marketplace (Zhang et al., 2024). More specifically, it is not only a matter of increasing the service offering to better serve the demand of customers as well as broadening the customer base (Sherwen, 2023), but of realising its potential to enhance operational efficiency through reduced transaction fees while simultaneously increasing the scalability and speed of transactions (Zhang et al., 2024; Wu et al., 2022). However, in order for business and retailers to conformably adopt a new emerging technology, it is crucial that retailers understand the demand for its usage through the minds of the consumers (Baines et al., 2019). More broadly, if envisioning a future, regardless of the exact probability of its realisation, in which cryptocurrencies (e.g Stablecoins) emerge as a preferred and demanded payment method, it is essential for business to stay ahead of the curve to effectively leverage the benefits and minimise the drawbacks (Calvert & Koelz, 2018).

Although adoption curves and characteristics will differ depending on the technology and innovation itself, some underlying mechanisms governing consumer adoption have stayed intact. Trust is of significant importance within the context of technology adoption (Bahmanziari et al., 2003). Consequently, historically, trust as a construct has played a vital role in shaping the consumer willingness

to transition from one traditional system to the new innovative solution (Gao & Waechter, 2015; Gefen et al., 2003; Sadhya et al., 2018) . Given this critical role of trust, this research specifically focuses on how the construct of trust and its underlying dimensions influence the adoption of Stablecoins as a payment method.

## 1.2 Research Gap

While there has been and continues to be substantial research efforts to understand cryptocurrencies from an investment and speculation perspective within domains of finance and macroeconomics, fewer have focused on the adoption of cryptocurrencies as a means of payment (Bank of Canada, 2015; Baur et al., 2018). Moreover, within the existing research having this focus, the vast majority of studies have been concentrated on Bitcoin in various contexts (Almarashdeh, 2018; Kim, 2021; Mashatan et al., 2022; Budree, 2023). However, research on the adoption of Stablecoins for payment purposes is more or less non-existing (Ante et al., 2023; Li et al., 2024). In addition, given the highlighted drawback associated with Bitcoin´s high volatility and, thus, its uncertain future in terms of its use case (Miraz et al., 2022), the focus on Stablecoins contributes with increased relevance in the context of cryptocurrencies as a medium of exchange (Li et al., 2024). Furthermore, to understand and predict variables influencing the adoption of cryptocurrencies as well as other emerging technologies (e.g mobile payments) as a medium of exchange, previous research has resulted in relatively consistent findings using established adoption models such as UTAUT, UTAUT2 and TAM with regards to the significant role of certain variables such as social influence (Koenig-Lewis et al., 2015; Restuputri et al., 2023), effort expectancy (Hussain et al., 2018; Walton & Johnston, 2018; Arias-Oliva et al., 2019) and performance expectancy (Hussain et al., 2018; Mendoza-Tello et al., 2018; Shahzad et al., 2018; Arias-Oliva et al., 2019), among others.

However, through profound research, literature review, expert interviews and meetings with industry leaders to effectively navigate the dynamic and complex nature of cryptocurrency adoption in Nigeria, one less studied but consistent denominator became manifested. The role of trust kept recurring as an overarching central and crucial construct to explain the potential adoption of Stablecoins as a medium of exchange. The insights gathered from multiple experts during the first week of January 2024 underscored this focus (personal communication, January 8-14, 2024). For more information related to the personal communication reference, see Appendix B).

As underscored, trust as a variable has been shown in the existing literature to consistently and significantly influence adoption of new payment technologies (Albayati et al., 2020; Budree, 2023;

Kumari et al., 2023; Almajali et al., 2022; Zarifis, 2023; Mendoza-Tello et al., 2019; Gao & Waechter, 2015; Almarashdeh, 2018). However, trust has not been studied extensively and profoundly as a multidimensional construct through a comprehensive framework, which can be seen in research papers (Albayati et al, 2020; Budree, 2023; Kumari et al, 2023) where trust is kept as a high level, separate construct along with others, lacking the necessary dimensions and thus depth.

## 1.3 Purpose and Research Question

The purpose is to understand drivers for adoption of new digital payment technologies, specifically focusing on Stablecoins, through the lens of trust. As a Stablecoin represents both a currency and a system for transferring value (peer-to-peer through the blockchain technology) (Mashatan et al., 2022), the overall trust is studied through these two distinct dimensions.

In addition, given the emergence of Bitcoin in the midst of the financial crisis (Swartz, 2018) and the shown currency substitution effect throughout time (Baur et al., 2017), the concept of distrust as a construct with explanatory power also plays a vital role in this research. That is, the aim is to further expand these dimensions as not only is adoption of Stablecoins for payment purposes studied through the trust in the new technology itself, but also the role of distrust in whatever is the default alternative today and thus of substitution effect to explain the adoption. This thesis aims to understand the adoption of new payment methods, focusing on Stablecoins, by examining trust levels in both the currency and the technology. Specifically, it explores trust in Stablecoins (USD - backed) (1) compared to existing legal tender (the Naira) (2), as well as trust in blockchain technology (3) versus conventional payment systems (4).

Lastly, attitude will function as the main mediating variable between trust and intention to use Stablecoins for payment, aligning with the well studied link between attitude and intention (Almajali et al., 2022). Intention itself will be used as a proxy for actual adoption, in accordance with the Theory of Planned Behaviour (Agrebi & Jallais, 2015; Davis, 1989). Consequently, through using trust as a multidimensional construct, the aim is not only to understand the link between trust and adoption of Stablecoins as a medium of exchange, but to understand how these different dimensions of trust independently affect this adoption. Therefore, the research question this thesis seeks to answer is stated below.

**Research Question:**

*How does trust as a construct and its various underlying dimensions influence the consumer intention to use Stablecoins as a payment method?*

## 1.4 Expected Contributions

### 1.4.1 Theoretical Contributions

This study aims to fill significant gaps in the literature concerning consumer adoption of cryptocurrencies (Bank of Canada, 2015; Baur et al., 2018), specifically with regards to Stablecoins (Li et al., 2024). By focusing on the role of trust in Stablecoin adoption, advancement of our understanding of how trust influences the acceptance of cryptocurrencies is expected (Sadhya et al., 2018; Marella et al., 2020). Hence, this study is expected to address the need to explore the impact of trust as a multidimensional construct in the adoption of cryptocurrencies (Stablecoins) and new payment technologies in general as a phenomenon.

### 1.4.2 Practical Contributions

This research is expected to offer actionable insights for businesses and practitioners, particularly those interested in the use of cryptocurrencies in a country at the forefront of potential massive cryptocurrency adoption like Nigeria (Chainanalysis, 2023). Being one of the first studies to explore Stablecoin adoption through the lens of trust post the lifting of the central bank's ban (Dzirutwe & Holmes, 2023) , it provides essential insights into Nigerian attitudes towards Stablecoins and how these are shaped by different dimensions of trust. This thesis aims to enhance understanding of consumer demand for new payment technologies, informing targeted marketing campaigns and strategic decision-making that can attract customers and build competitive advantages (Niemeier et al., 2013; Zhang et al., 2024). Additionally, it aims to offer insights into potential barriers and drivers of distrust that could influence consumer acceptance of new payment methods (Zhang et al., 2024; Wu et al., 2022). Overall, this research is expected to provide actionable insights into the cryptocurrency market, particularly Stablecoins and the role of trust. Hence, it is expected to lay the groundwork for future studies on emerging payment technologies in order to ensure continued relevance in an evolving financial landscape (ECB, 2022; Arifovic et al., 2023).

## 1.5 Delimitations

In the pursuit of novel contributions in a concise, yet in-depth analysis, of the core construct (trust in a multidimensional construct influencing adoption), the following delimitations are seen as important. Firstly, the geographical focus is on Nigeria, implying certain boundaries with regards to the generalisability of the findings to other countries characterised by a different economical, cultural, political and regulatory environment. For example, the culture is significantly different, which has been shown to result in different trust outcomes (Salcedo & Gupta, 2021). In addition, the regulatory environment is rapidly changing as crypto custody for banks was recently banned for almost 2 years, which could affect the adoption patterns and thus the applicability of this study (Dzirutwe & Holmes, 2023). Nevertheless, it is chosen due to its unique positioning as a country where the usage of cryptocurrencies, Stablecoins in particular, is in fact high and thus most relevant for ensuring a realistic potential to fulfil the promise of becoming a new medium of exchange (Chainanalysis, 2023). Additionally, it is chosen as the distinct focus enables an effective way of conducting the research.

Secondly, the chosen focus on Stablecoins as a subcategory of cryptocurrencies and specifically only USD backed Stablecoins, limits the exploration of how the adoption of other types of cryptocurrencies can be explained. However, as a subcategory of cryptocurrencies, Stablecoins is the focus due to its relevance with regards to the potential of being used as a medium of exchange (Li et al., 2024). In addition, the type of Stablecoin (USD backed in this study) is of minor importance as long as the underlying promise of stable value remains unchanged as of today (Lyons & Viswanath-Natraj, 2023).

Thirdly, the time frame for the data collection is delimited to a period interval between 2024-01-12 and 2024-01-24. Furthermore, as the focus is distinctively on Stablecoin adoption as a medium of exchange, other variables of importance are omitted to obtain a comprehensive understanding of the key drivers of adoption as these variables have already been proficiency tested with clear consistency in the results (See 1.2 Research Gap). This concentration is what enables the deep analysis into this important, yet unexplored construct. Moreover, the term 'adoption' refers not to the actual use of Stablecoins for payment purposes but to consumer intention to use them in such a context. Following the recent lifting of the ban on cryptocurrencies, this study necessarily adopts a forward-looking perspective on adoption. Given the strong positive correlation between intention and actual behaviour (supported by theory of planned behaviour), this approach effectively captures the concept of adoption.

Fourthly, the focus is on digital payment technologies, excluding non-digital forms such as cash. The study does not differentiate among various types of digital payments (e.g., credit card transactions versus mobile payments), which could be specified in future studies.

Finally, one last delimitation is on adoption from the consumer perspective while the drivers for retailers own adoptions are not investigated due to the risk of unnecessary complexity and lower level of generalisability.

## 1.6 Disposition

In this thesis, the foundational theoretical framework and the connected hypotheses are firstly explained, clarified and decomposed. Thereafter, the report proceeds elaborating in depth on the methodology. Subsequently, the results are highlighted, which then builds the basis for the study´s main conclusions and implications, both for academia and practitioners. Finally, main limitations as well as suggestions for further research are emphasised.

# 2. Theoretical Foundation and Hypotheses

In this section, the underlying constructs of this article's theoretical framework, in the form of existing models, previous literature and theories, are presented. First, an overview on how trust has been examined in previous literature in the context of adoption is presented. Second, the effects of distrust in the current alternatives and how it has affected the adoption of the new alternative. Thirdly, an in depth review of more specific trust theory literature. Fourthly, the concept of Socio-Technical system is presented and applied and interlinked with the previously presented definitions of trust. Once the theoretical framework has determined the foundation (Fig. 2.1) for this research overarching model, the independent variables foregoing the general trust variables are described. Hence, the narrative around and the choice of independent variables will be explained, followed by the attitude and intention

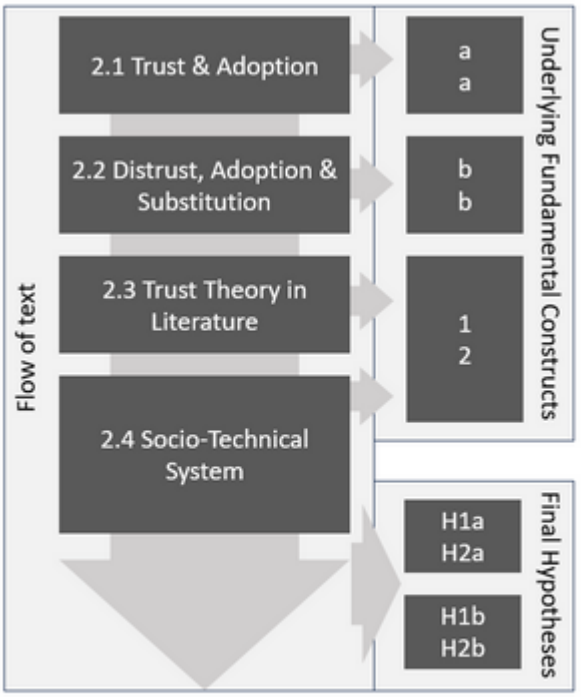



***Figure 2.1*** *An illustration of how the initial phase of the theory section is structured*

variables. The proposed hypotheses are presented throughout this section in order to make the link between theory and hypotheses as clear as possible.

There exists no single clear definition of trust (Gefen, 2013, Ch.7), but one general and often cited definition of trust is that from Mayer et al. (1995) (Marella et al., 2020; Gefen, 2013, Ch.7). The definition by Mayer et al. (1995) provides initial guidance with regards to the definition of trust and how it has mostly been applied in previous literature. Trust by Mayer et al (1995) is defined as:

"*...the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party"* (Mayer et al., 1995, p.712 ).

## 2.1 Trust and Adoption

Trust is a critical link for financial transactions and payments (Marella et al., 2020). It can also bridge the gap of uncertainty when conducting economic transactions (Bons et al., 2020). Overall, trust is one of the underlying constructs enabling efficient market exchanges (Toufaily, 2022).

The research within the area of trust has grown and so has its explanatory value in bridging complexity within fields such as technology and interpersonal relationships (Gefen, 2013, Ch.7). Hence, trust is a phenomenon that has been studied in numerous technological contexts and through the application of multiple models (Albayati et al., 2020; Budree, 2023; Kumari et al., 2023; Almajali et al., 2022; Zarifis, 2023; Mendoza-Tello et al., 2019; Gao & Waechter, 2015; Almarashdeh, 2018).

The different environments in which trust has been examined as a factor influencing adoption in terms of attitude or behaviour towards using a new technology are among others mobile payments, e-commerce, cryptocurrency adoption, the adoption of new payment methods and general adoption of new technologies (Mashatan et al., 2022; Gefen et al., 2003). Trust has been shown to have a significant impact within adoption research either moderating or being the independent variable directly influencing the dependent variable of attitude, intention or behaviour (Mashatan et al., 2022; Albayati et al., 2020; Budree, 2023; Kumari et al., 2023; Almajali et al., 2022; Zarifis, 2023; Mendoza-Tello et al., 2019; Gao & Waechter, 2015; Almarashdeh, 2018).

In the contexts where adoption has been analysed it has been done through the direct application of existing adoption models or modification of models. Trust has been examined as an additional part of the TAM model with significant effect on attitude towards adopting but also shown to have an effect on perceived ease of use (Albayati et al., 2020). As a part of a modified TAM, trust has shown to have a positive relationship with both intention to use as well as perceived usefulness (Mendoza-Tello et al., 2019). In addition, trust has been examined in models that were specifically constructed within the scope of certain articles (Mashatan et al., 2022; Gao & Waechter, 2015). Overall, the positive relationship between trust and adoption has been widely studied and accepted within adoption theory in numerous fields. Therefore, the relationship between trust and adoption is expected to remain significant and positive in this research as well. However, while trust has been studied frequently, one less mentioned aspect in adoption theory is the effect of distrust. Hence, following the concept of trust, the concept of distrust is described.

## 2.2 Distrust and Adoption

To describe distrust, the phenomenon of currency substitution can be applied and it occurs when a foreign currency is used as a complement or substitute to the domestic currency (Baur et al., 2017). The currency substitution effect has appeared frequently throughout history (Baur et al., 2017). Countries adopting the US dollar instead of using their own, are often linked to the greater stability of the US dollar as compared to a country's distrusted legal tender (Sharma et al., 2005; Park & Son, 2022). Furthermore, in countries experiencing a currency inflation crisis the adoption of cryptocurrencies (Bitcoin) has been shown to surpass that of low-inflation countries (Saiedi et al., 2020).

As the first cryptocurrency Bitcoin was introduced in 2008, its aim was to function as a substitute currency based on the distrust towards the current financial system and the related institutions (Nakamoto, 2008; Toufaily, 2022). The positive relation between distrust in the financial system and the adoption of cryptocurrencies (Bitcoin) was further strengthened by Saiedi et al., (2020). Furthermore, due to the characteristics of blockchain of being decentralised and having no third party as compared to traditional fiat money being centrally managed by the central bank of a currency area, the cryptocurrencies are typically viewed as being a substitute towards centrally issued money (Kumari et al., 2023). In recent years, there has also been a transition for many economies away from cash and towards a cashless system (Fabris, 2019).

The perspective of the substitution effect adds an additional dimension to the model in this research which has not been previously researched. Overall, it is hypothesised that the attitude towards adopting a new alternative to transact with, is driven by both the trust towards the new alternative and driven by the distrust towards the current alternative, i.e. the substituted alternative.

## 2.3 Trust Theory In Literature

While the importance of trust is coherent throughout most literature, the definition of trust differs depending on the field of study (Gefen, 2013, Ch.7). The trust definition by Mayer et al. (1995) provides initial guidance on general trust as a phenomena, this definition is aimed to explain trust between parties when the link is established between identifiable parties (Mayer et al., 1995). Therefore, the peculiar situation in terms of digital currencies requires a more suitable definition.

The inherent non-presence of human actors within the blockchain technology of Stablecoins highlights the importance for trust theory in interactions between humans and technology (Marella et al., 2020), where the trust in the technology refers to the IT artefacts (McKnight et al., 2011). The trust in a technology through its IT artefacts, essentially captures the trust that a trustor (human) has to the technological trustee, which in the case of cryptocurrencies refers to cryptography, decentralisation, hash functions, digital signature and consensus mechanism (Sadhya et al., 2018; Gefen, 2013, Ch.7). Similarly, while the digital system for conventional payments is not built on the blockchain it still depends largely on the technical aspects and capabilities of that technology (Szumski, 2020).

Meanwhile, while Stablecoins are built on the blockchain, the value is derived from the underlying asset, in this research the US dollar. The value of the US dollar is to a large degree dependent on the actions of institutions related to the US dollar, such as the federal reserve's monetary policy, US companies, the actions of the department of the treasury among others (Schwarzenberg, 2020; Nelson & Weiss, 2022). Overall, the institutional trust towards the US dollar refers to the belief that keeping this currency will result in a beneficial situation and the same reasoning is applicable to other currencies (Gefen, 2013, Ch.7). Furthermore, institutional trust also refers to the factors influencing a trustworthy environment for a technology, which includes the institutions affecting the technology and its surrounding, factors like legal and regulatory aspects of cryptocurrencies in general (Zarifis, 2023; McKnight et al., 2011).

Consequently, the complexity of trust points out the need to divide it into the trust towards the currency and towards the technology. That is, on the one hand, technology trust is needed (e.g blockchain

technology) to adopt a new payment technology. On the other hand, institutional trust is also needed, both in the government support to use the currency (e.g Stablecoins) and in the underlying currency itself (e.g US Dollar). This constitutes a novel and unexplored combination within the literature of trust. Simply put, digital currencies need to be seen through this light in which the system is separated into two main dimensions: institutional trust towards the currency and technology trust towards the underlying technology. For this purpose, focus is turned to the STS Theory.

## 2.4 Sociotechnical Systems

Introduced as an organisational theory in the 1950's the Socio-Technical System (STS) theory was established to emphasise the importance and alignment of the relationship between humans and machines for successful structures of organisations (Lee et al., 2022; Shin & Rice, 202). In recent years, the STS theory has had a wide range of applications in environments beyond the organisational context, such as for example in blockchain and cryptocurrencies (Shin & Rice, 2022; Caliskan, 2020; Swartz, 2018). Altogether, the technical dimension of the model refers to the systems, software and tools that are prevalent (Shin & Rice, 2022). The social dimension captures the actions of institutions, the political elements, the economic environment, essentially capturing the aspects where the system is influenced by human behaviour and the overall context in which it exists (Shin & Rice, 2022).

Compared to other cryptocurrencies, USD backed Stablecoins derives its value directly from the US dollar. This ties back to the trust discussed in the previous section regarding institutional trust towards the currency of the US dollar and to the national currency. With regard to the regulations of an economy in terms of legal and accepted payment methods, it is conducted by the regulators and the legislative body (Shin & Rice, 2022). Similarly, the regulations regarding the national currency in an economy are governed and affected by authorities and government (Shin & Rice, 2022). Institutional trust is defined as a socio dimension due to the direct human influence on regulations, policy decisions and national financial decisions. Hence, institutional trust and socio-system will be referred to as currency trust throughout this research, combining the previous literature on trust in institutions with the Sociotechnical System theory.

The technical system of cryptocurrencies refers to blockchain which lays the foundation for conducting transactions, storing the cryptocurrency and constitutes one of the biggest differences compared to digital fiat money (Fang et al., 2022). Conventional digital payment methods are also based on technological

systems, allowing for users to transact, store and retrieve bank account information (Khan et al., 2017). Technology trust is linked to the technical dimension of Socio-technical system theory.

Consequently, based on the theory of sociotechnical systems and on the reasoning on value, regulations, and technical nature of the blockchain and digital domestic currency, the model in this research distinguishes between the technological and the social aspect. Hence, trust is divided into Currency Trust corresponding to the social aspect of the STS theory and the Technological Trust corresponding to the technological dimension.

Moreover, the reasoning behind the division is motivated beyond solely the sociotechnical system theory. Since the aim of this study is to focus on the adoption of Stablecoins as a payment method, previous literature emphasises the sectioning of both Stablecoins and the legal tender into the dimension of currency and into the technological to be crucial (Mashatan et al., 2022). Hence, it is important to consider the peculiarity of what Stablecoins encompasses as it is representing both another currency (I.e the cryptocurrency, e.g USDC backed by the currency US dollar) and a technology (blockchain) (Swartz, 2018). Consequently, it is not only appropriate but crucial to separate the currency from the technology, in particular with regards to consumer trust, as these are two different dimensions of any cryptocurrency. That is, one may have trust in the currency, e.g USD collateralized, but not in the system (e.g the reliability of transferring value through a distributed system) (Mashatan et al., 2022). Furthermore, researchers within information systems have also demonstrated that the trust in the technology is significantly different from the trust between users (Sadhya et al., 2018). Consequently, this study separates the trust to the currency and the trust to the technology and analyses it as two distinct different dimensions.

*H1a: Trust in Stablecoins as a currency (USD backed) has a positive relationship with the attitude towards adopting Stablecoins as a payment method.*
*H1b: Trust in the Naira (National currency in Nigeria) has a negative relationship with the attitude towards adopting Stablecoins as a payment method.*
*H2a: Trust in the Stablecoins as a technology (blockchain) has a positive relationship with the attitude towards adopting Stablecoins as a payment method.*
*H2b: Trust in Conventional Payment Technology (bank transfer/card payment) has a negative relationship with the attitude towards adopting Stablecoins as a payment method.*

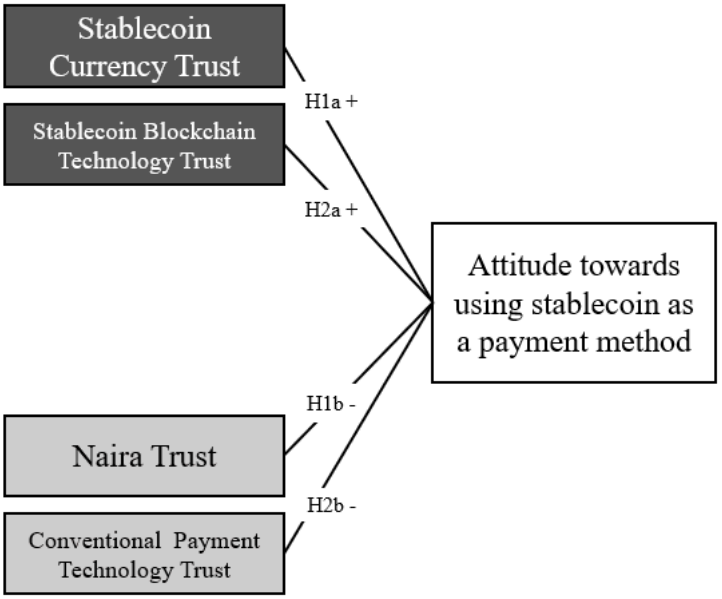



***Figure 2.2*** *An illustration of the fundamental model of the research based on the sectioning of trust into currency- and technology-trust as well as encompassing the substitution effect towards attitude.*

## 2.5 Currency Trust and Technology Trust

### 2.5.1 Currency Trust

Currency trust is divided into the variables of store of value and regulations, which is aligned with institutional trust theory and further strengthened by the connection to Sociotechnical System Theory.

#### 2.5.1.1 Store of Value

The perception of the store of value of Stablecoins and the legal tender aims to capture the users belief of the stability in that specific currency and hence its trust to use it as a payment method. As stated by Sangari & Mashatan (2023) uncertainty in the form of high price volatility negatively influences the users intention to use cryptocurrencies as a means of payment. Similarly, a legal tender experiencing high inflation, e.g. leading to lower trust in the value, will raise the possibility of people adopting another and more stable currencies (Park & Son, 2022). Volatility negatively influences the perception of a currency to function as a medium of exchange as well as store of value (Routledge & Zetlin-Jones, 2022).

In this research the focus is on the Stablecoins pegged to the US Dollar and the legal tender in Nigeria, the Naira. Hence, the trust in value refers to the belief of the relative stability of the USD in comparison to the legal tender (the Naira) and vice versa. Consequently, based on the previous literature it is

hypothesised that the perceived function of a currency to store its value over time is positively correlated with the trust in the currency. Hence it is hypothesised that:

*H3a: Perceived store of value of Stablecoins has a positive relationship with Stablecoin currency trust.*
*H3b: Perceived store of value of the Naira has a positive relationship with trust in the Naira.*

#### 2.5.1.2 Regulations

While the factor of store of value is assumed to influence currency trust, the importance of a regulatory framework shaping the perception and the legal possibilities for users is also important to consider. Regulations' effect on adoption of technology has been studied numerous times and has been shown to have a significant direct and indirect effect on intention as well as effect on trust (Zarifis, 2023; Mendoza-Tello et al., 2019; Albayati et al., 2020). It is by some referred to as the largest barrier towards the usage of alternative currencies (Conti et al., 2018). Furthermore, a definition in Albayati et al. (2020) provides a comprehensive overview over the definitions of regulations in terms of cryptocurrency adoption.

*"Regulatory framework & government support refers to legal frameworks that were established by the government to monitor and ensure that both service providers and consumers of technologies will fulfil their obligations and avoid violations. In the case of blockchain technology adoption, government regulation could support the adoption and increase trust."* (Albayati et al., 2020. p.6)

Furthermore, to highlight the importance of regulatory support, it can even be seen as a necessity to avoid uncertainties with regards to future regulations and support can further foster consumer trust and hence adoption (Wu et al., 2022; Albayati et al., 2020). While regulations can protect the user and enhance adoption it also encompasses the potential of government bans on using certain currencies, such as cryptocurrencies (Bhimani et al., 2022). Consequently, it is assumed that a government support in the form of regulations on payment methods will have an effect on the trust of a currency. Hence it is hypothesised that:

*H4a: Perceived regulatory support of Stablecoins has a positive relationship with trust in the currency.*
*H4b: Perceived regulatory support of the Naira has a positive relationship with trust in the currency.*

### 2.5.2 Technology trust

While store of value and regulations are crucial for currency trust, perceptions of the technology´s ability to meet users expectations also influence trust in the technology and consequently how payment methods are being considered. Trust in technology is a multifaceted construct that is critical for the adoption of digital payment systems, including Stablecoins. Drawing from extensive literature in technology adoption, information systems and financial technology as well as expert interviews in Nigeria (personal communication, January 8-14, 2024), this research divides technology trust into four key variables: Security, Reliability, Privacy and Traceability. In this section the four technology variables in this research will be presented.

#### 2.5.2.1 Privacy

Given the personal aspect of money, there is often an unwillingness to share money information with unauthorised parties. This makes privacy the first key feature to be considered as an independent variable towards trust in the technology. Privacy refers to a users' chance of keeping control of their personal information while making transactions (Mashatan et al., 2022). This could be both directly from the transactions or from the bank or crypto exchange where users keep their money and the privacy risk has increased as these companies have started to keep more customer information, e.g. through KYC (Mashatan et al., 2022). With regards to cryptocurrencies, information about transactions are stored on the secured ledger (Zhang et al., 2019). For the conventional payment method in a country, the financial institutions keep sensible information about their customers digitally (Piotrowski, 2023). Consequently, it is assumed that users' perceived privacy will have a positive effect on the overall trust of a currency. Hence it is hypothesised that:

*H5a: Perceived privacy in the Stablecoin blockchain technology has a positive relationship with trust in the Stablecoin blockchain technology.*
*H5b: Perceived privacy in the conventional payment technology has a positive relationship with trust in the conventional payment technology.*

#### 2.5.2.2 Traceability

While privacy is important for users to keep their information to themselves, it is also important for users to have the opportunity to store and recall information on their transactions from the past. Hence, traceability is the part of a system that makes it possible to show the history of transactions and its details (Mashatan et al., 2022). In this section, traceability will be used interchangeably with information quality. According to Gao & Waechter (2015) information quality refers to a system's ability to acquire

information about the transaction history with regards to its sufficiency, accuracy, relevance and timeliness. Regarding traceability, there is an inherent tradeoff with anonymity and the gathering of private information. Since more traceability means more gathering information. Above all, traceability has been shown to have a positive impact on trust (Mashatan et al., 2022). Hence it is hypothesised that:

*H6a: Perceived traceability in the Stablecoin blockchain technology has a positive relationship with trust in the Stablecoin blockchain technology.*
*H6b: Perceived traceability in the conventional payment technology has a positive relationship with trust in the conventional payment technology.*

#### 2.5.2.3 Security

The two previous variables capture the essence of storing information while keeping control of it. However, the risk of general attacks on the blockchain or payment transaction technology is not fully covered. Security is often referred to as security risks, hence security is the non-appearance of these risks or threats (Mashatan et al., 2022; Conti et al., 2018). There are multiple security risks and attacks that could happen to the technology of cryptocurrencies such as double spending, 50% hashpower, finney attacks, brute force attack, block withholding and more (Conti et al., 2018). Security is an important factor for a currency and technology to gain widespread adoption (Almarashdeh, 2018). Similarly, though not facing the exact same threats, security plays a role in the conventional payment technology system. The threats for the digital banking system are among others the risk for opportunistic hackers (Budree, 2023). Consequently, the absence of security risks and the existence of security in the system is assumed to be correlated with trust. Hence it is hypothesised that:

H7a: *Perceived security in the Stablecoin blockchain technology has a positive relationship with trust in the Stablecoin blockchain technology.*
H7b: *Perceived security in the conventional payment technology has a positive relationship with trust in the conventional payment technology.*

#### 2.5.2.4 Reliability

Thus far the factors of privacy, traceability and security have been brought up as factors influencing trust to the system. Nevertheless, what is to be trusted if the technology does not have the ability to fulfil the purpose for which it was constructed, namely to facilitate payment transactions. The variable describing the constancy in operating properly is referred to as reliability. In previous literature reliability has often been referred to as perceived service quality (Gao & Waechter, 2015; Lee & Sung, 2023). Thus, research

from contexts such as mobile payments systems and cryptocurrency exchanges are used as a proxy to describe the effect of reliability on trust in the system (Gao & Waechter, 2015; Lee & Sung, 2023). Reliability in this research is concerned with the quality of the technology and each transaction such as the successful sending and receiving (Lee & Sung, 2023). More specifically, reliability issues refers to service interruptions, unreachable connection, bouncing payments and low speed of transactions (Gao & Waechter, 2015; Lee & Sung, 2023). Consequently, reliability is linked to the trust in the underlying system of a currency. Hence, it is hypothesised that:

H8a: *Perceived reliability in the Stablecoin blockchain technology has a positive relationship with trust in the Stablecoin blockchain technology.*
H8b: *Perceived reliability in the conventional payment technology has a positive relationship with trust in the conventional payment technology.*

## 2.6 Descendants of Trust

This section examines the role of attitude towards stablecoin as a payment method and its influence on the intention to use it. Previous research in models like the Technology Adoption Model (TAM) and the Theory of Reasoned Action (TRA) has consistently demonstrated a positive and significant relationship between these variables.

### 2.6.1 Attitude

According to Albayati et al. (2020) attitude can be described as "...the user's positive or negative feelings toward the new technology". Furthermore, attitude captures the users accumulated subjective familiarity to a certain behaviour and its consequences (Almajali et al., 2022). Attitude has been shown to have a direct impact on the intention to adopt new technology (Almajali et al., 2022, Albayati et al., 2020, Yoo et al., 2020, ). Hence, it is hypothesised that:

*H9: Attitude towards using Stablecoin as a payment method has a positive relationship with the intention to use stablecoins as a payment method.*

### 2.6.2 Intention

Intention towards use has been empirically shown to have a positive and significant effect on actual behaviour (Davis, 1989). The link between intention and actual behaviour has been shown in both Theory

of Reasoned Action (TRA) (Albayati et al., 2020) and Technology Acceptance Model (TAM) (Davis, 1989).

## 2.7 Summary of hypotheses

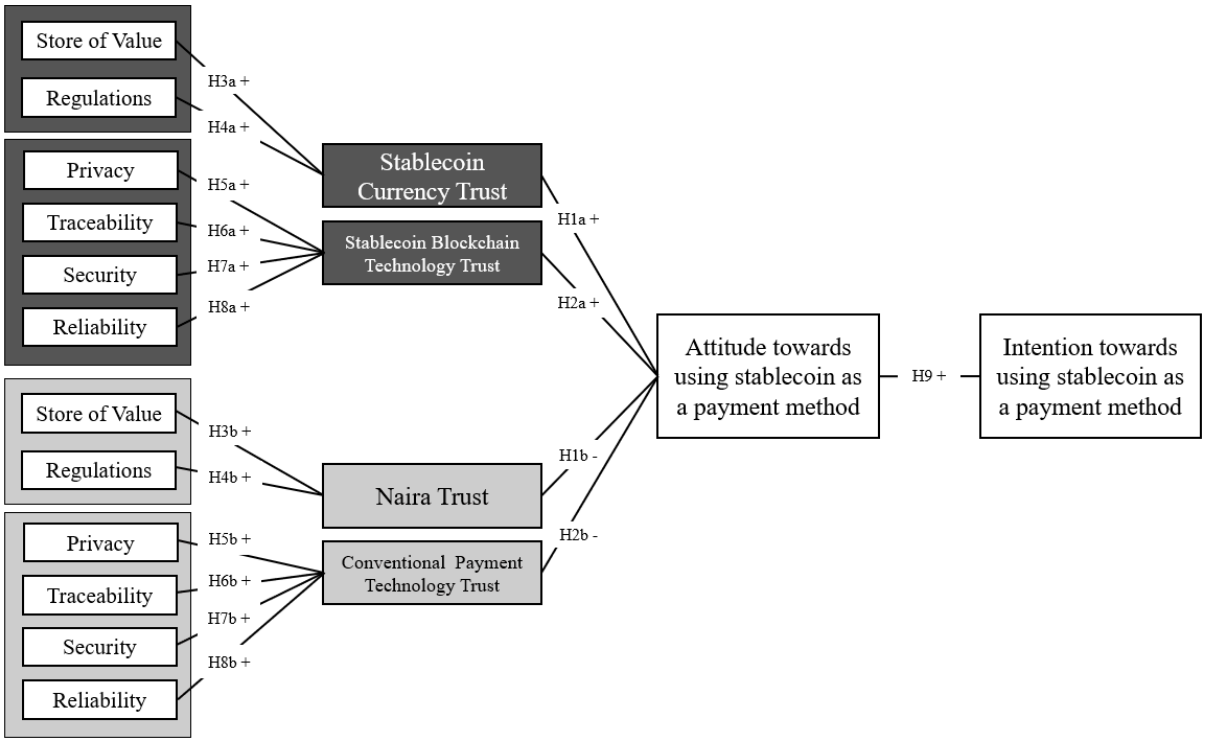



***Figure 2.3*** *An illustration of the entire model for this research including assumed correlation directions between variables.*

# 3. Methodology

## 3.1 Choice of Subject

The research subject is to understand drivers for consumer adoption of new payment technologies.

Upon the highlighted extensive literature review, it became clear that while traditional broad adoption models such as UTAUT, UTAUT2 and TAM have been used to study this phenomenon, few had been concentrated on the multifaceted nature of one key construct. More specifically, among these key constructs, trust as a concept, has been consistently found to be of substantial significance for enabling or prohibiting adoption of these technologies, yet its complex role and nuanced attributes has been largely unexplored in existing literature, as emphasised in the theory section. Adoption of digital payment

methods through the lens of trust was therefore chosen as the research subject to enable relevant insights for both academia and practitioners.

## 3.2 Choice of Object

The overall choice of object in this study is adoption of Stablecoins as a payment method in Nigeria through the lens of trust as a multidimensional construct. Hence, the choice of objective consists of three central parts: Stablecoins (1), Nigeria (2) and Trust as a multidimensional construct (3).

### 3.2.1 Payment method - Stablecoins

As pointed out in the introduction, the field of new payment innovations is rapidly growing (McKinsey & Company, 2021). Thus, in an excess of alternatives, this study is distinctively targeted at Stablecoins because of its particular relevance for both academia and retailers/businesses. For academia, the relevance is derived from the novelty of this focus as this adoption of Stablecoins as a payment method has not been explored until now (Li et al., 2024) . For business practitioners, the relevance stems from the growing adoption of cryptocurrencies in both developing and emerging markets (Statista, 2023) and, more specifically, the stronger expected feasibility of Stablecoins serving the use case of representing the payment method of tomorrow (Li et al., 2024) .

### 3.2.2 Market - Nigeria

As a logical consequence of Stablecoin adoption for payment purposes as a research object, the goal was to conduct the research in a setting characterised by a high level of awareness and usage of Stablecoins since it is a novel and niche technology with low adoption levels worldwide (Chainanalysis, 2023). Consequently, given the adoption data available, this study was conducted by travelling to Nigeria, which is a country exhibiting one of the highest levels of cryptocurrency adoption, in particular when it comes to Stablecoins (Chainanalysis, 2023). By focusing on Nigeria, the study capitalised on a context where widespread adoption of Stablecoins as a payment method is realistically possible, unlike in regions with low awareness or adoption. Additionally, the withdrawal of a previous national ban for financial institutions to custody cryptocurrencies prior to our arrival further reinforced the potential of future adoption in this context (Dzirutwe & Holmes, 2023).

### 3.2.3 Construct - Trust as a multidimensional construct

The third key element with regard to the choice of the research object is the study of this phenomenon through the lens of trust as a multidimensional construct. In addition to the lack of research using this

approach as emphasised in the choice of subject,the relevance of this focus was further reinforced as a result of conducting several interviews with industry leading organisations and experts upon arrival in Nigeria. Although the insights and perspectives differed depending on the interview, trust as a central concept to understand the adoption emerged as a consistent theme. This theme and narrative consisted of the role of not only trust in Stablecoins to potentially drive adoption but also the level of distrust to the current available alternatives as a crucial factor (personal communication, January 8-14, 2024). Therefore, trust is the third key element of the overall research object.

## 3.3 Research Method

To properly address the research question and test the hypotheses, a quantitative method was used. More specifically, only one data collection technique was used in the form of a survey and thus this method can be referred to as a mono method quantitative study (Saunders et al., 2019). This survey strategy enables quantitative analysis using descriptive and inferential statistics to suggest possible reasons for certain relationships between variables (Saunders et al., 2019). Consequently, it was chosen as the most effective strategy to address the proposed research question as its essence is about understanding relationships between variables. Furthermore, this method enhances the generalisability, helps expand the understanding of the phenomenon to other settings and enables the results to be reproduced (assuming the study would be repeated) (Eliasson, 2013). Admittedly, the method is limited by the lack of depth it is typically associated with when contrasted to a qualitative method. In a qualitative method the main goal is to investigate the “why”, typically when no previous research has been done (Eliasson, 2013). Hence, given the identified research gap, a qualitative method is not to be ruled out without consideration.

However, despite the seemingly lack of previous literature with regards to the object, for the choice of subject as adoption of new payment technologies, there is substantial previous research and theory to deduct the nature of the research from as demonstrated in the theory section. In addition, the quantitative method fits the scope of this research since the aim is to study the attitudes (through the lens of trust) towards an object or phenomenon (payment technologies broadly and Stablecoins specifically) (Eliasson, 2013). Therefore, a quantitative approach is deemed to be the most appropriate method given the nature of this research and the research question proposed.

## 3.4 Choice of Research Approach

This study adopts a deductive research approach. It is deductive because the thesis builds upon a solid foundation of existing research, literature and theoretical frameworks related to the subject of digital

payment technologies and trust (Saunders et al., 2019). The hypotheses tested in this research are derived from this theoretical base and are applied to a new context (i.e the adoption of Stablecoins in Nigeria). A deductive approach aligns well with quantitative research methods and survey strategies used in this study, as it involves testing theoretical propositions with empirical data (Saunders et al., 2019).
Additionally, this research incorporates an exploratory focus, particularly useful in the initial phases of the study. Exploratory research helps clarify concepts and deepen understanding of a specific phenomenon, which, in this case, is the adoption of Stablecoins in Nigeria (Saunders et al., 2019). This exploratory aspect was instrumental during the conduct of expert interviews (personal communication, January 8-14, 2024) which provided insights that, in connection with the literature review, guided the refinement of the research focus towards trust as a key multidimensional construct influencing adoption. The exploratory nature of these interviews helped identify and reinforce trust as a central theme that had not been extensively covered in existing literature.

## 3.5 Main Study

### 3.5.1 Design of the study

The chosen research strategy and design is to construct a survey as a questionnaire for respondents to answer in order to measure perceived trust, attitude and intention. This is aligned with the deductive research approach (Saunders et al., 2019). Furthermore, this design has the advantage of being considered authoritative, easy to use for comparisons, efficient for ensuring control over the research process and allowing for greater generalisability. Above all, the survey strategy, specifically expressed through a questionnaire, has the potential to produce statistical relationships between variables and create models of such relationships (Saunders et al., 2019). Consequently, this design is providing the most appropriate basis for addressing the research question.

Admittedly, this research design has limitations. Firstly, the value of the strategy is sensitive to the accuracy, correctness and rigour with regards to the construction of surveys to ensure a good response rate, strong data quality and overall that the desired dimensions are effectively being measured. Secondly, representativeness is in itself a challenge when collecting data through a questionnaire. Thirdly, there is an intricate balance to strike with regard to, on the one hand, including many questions in the pursuit of insightful results and, on the other hand, minimising the effort for the respondent by limiting the number of questions asked (Saunders et al., 2019).

Nevertheless, this design was chosen due to its alignment with the deductive research approach and strong potential to produce results meaningful to answer the research question. To effectively address the highlighted limitations above, a pilot study was first conducted, analysed and later revised to minimise those risks.

### 3.5.2 Design of the survey

The survey consists of six different question blocks. The first block includes an overall introduction to the topic, research purpose, expected time to complete and overall ethical clarifications about how the data will be handled, aligned with GDPR considerations. Additionally, a question about consent is included, where a clickable document is attached clarifying in detail the data policy of this research in a transparent way. The second block includes some of the control variables (e.g. Gender and Education) as well as one concerning the respondent´s level of familiarity with Stablecoins as a digital currency. If the answer was "No" or "Somewhat", a new block was shown where Stablecoins as a phenomenon was described. If the respondent still felt uncertain with regards to the meaning of Stablecoin and its implications (Answer "No"), the respondent exited the survey and was not included in the analysis. In the third block (or fourth, conditional upon the Stablecoin knowledge check), the currency dimension is measured both to Stablecoins and the Naira while the fourth block equivalently covers the technology dimension. Thereafter, the fifth block contains key broader measures with regards to general trust level for different dimensions as well as both attitude and intention with regards to Stablecoin adoption as a medium of exchange. Finally, the last block consists of the remaining control variables, a control question (to enhance the reliability, asking about what the survey was about) and a question about any other comments to receive valuable feedback. To see the entire survey, see Appendix C.

### 3.5.3 Measures

The chosen measures have been used to properly answer the research question, aligned with the conceptualised model. That is, the measures are: Store of value, Regulations, Privacy, Traceability, Security, Reliability, Stablecoin Currency Trust, Stablecoin Blockchain Technology Trust, Naira Currency Trust, Conventional Payment Technology Trust, Attitude and Intention. In addition, demographics measures are included as control variables: Age, Gender, Education and Residence. Finally, Stablecoin Awareness is measured to ensure all (valid) respondents are aware of what Stablecoins are and how they function as medium of exchange. For a fully detailed list of all the measures, they are highlighted in

Appendix D. It includes the variable measured, the purpose of including the variable, its underlying items, how it was measured and the theoretical rationale for the survey questions asked.

### 3.5.4 Pilot Study

To rationally address cultural barriers between Nigeria and Sweden and the study´s unique setting and topic, a pilot study was conducted to ensure data quality. The survey was distributed at the University of Lagos and Obafemi Awolowo University over a week, collecting data from 317 (N=317) participants. Analysis revealed suboptimal data quality, particularly in representativeness. The sample was skewed towards younger (Median = 22, Mode = 20). In addition, since the survey was spread mainly at Universities, the skewness with regards to education level was even more prominent ([No education = 1.9%], [High School = 19.9 %], [College = 14.8 %], [Bachelor = 54.9%], [Master = 6 %], [Doctorate = 2.5 %]). Furthermore, data was collected only in Lagos and areas close to Lagos. This lack of diversity limited the generalisability of the results (Saunders et al., 2019). These findings led to planned improvements in sampling methods.

### 3.5.5 Sampling

As a logical consequence of the lessons drawn from the major pilot study, respondents were collected using Nigeria's leading market research agency, Webbhaptic. After gaining independent analysis of the available options from the foundation where the authors were staying, it was followed by visits to the company's head office in Lagos to meet the executives in person, understand the employed methods and structure and ensure high data quality. After thoroughly explaining, clarifying and demonstrating the survey construction in detail, the agency was employed to acquire respondents using a combination of stratified random sampling and judgemental sampling to achieve higher data quality.

The market agency was instructed to maximise the variance in the sample to represent the population of Nigeria to the greatest possible extent. In practice, this was achieved by providing target quotas based on demographic statistics in Nigeria. Thus, the initial convenience sampling techniques used through personal networks established in Nigeria, mostly consisting of Bachelor students, were subsequently complemented and ultimately replaced by a combination of stratified sampling and judgemental sampling (Bryman & Bell, 2011) conducted by Webbhaptic. The agency used their judgement to fulfil the quotas in a way that maximised representativeness. Through employing Webbhaptic, 485 [N = 485] respondents were gathered. Of this sample, data cleaning had to be made by eliminating invalid answers. More specifically, 19 [3.9%] failed to answer the control question correctly, 9 [1.8%] had a Recaptcha score

below 0.8 (implying risk for bot), 5 [1 %] did not consent, 15 [3.1%] answered the open age question unreliably (e.g., with special signs or letters), 12 [2.5%] of those unfamiliar with Stablecoins reiterated their lack of understanding even after receiving a description, 13 [2.7%] did not complete the survey, 2 [0.4%] were under 18. As these deviations were deemed invalid due to practical and/or ethical considerations, 405 [N = 405] respondents were considered valid for further analysis when all these conditions for invalid responses were taken into account simultaneously. Of the valid respondents, 204 [50.4 %] were male and 201[49.6%] female. The median age was 35 but the mode 22. In terms of education level, 40 [9.9%] had no completed education, 237 [58.5%] had only high school education, 11 [2.7%] college, 80 [19.8%] Bachelor's, 27 [6.7%] Master's and 10 [2.5%] Doctorate. In terms of geographical location, 39.3 % of the respondents did not live in Lagos (compared to effectively 0 % in the Pilot study). Data was now collected from 5 cities including Lagos ([Lagos = 60.7 %], [Kano = 16%], [Ibadan = 13.8 %], [Port Harcourt = 6.2%], [Enugu = 2.5%], [Other = 0.8%]).

Compared to Nigeria's actual demographics, this sample significantly improved population representation over the pilot study (see Appendix E). However, true random probabilistic sampling could not be employed due to time, geographical and financial limitations. This is reflected in skewed educational levels, with 90% of the sample having some education (high school or above), which is not representative of the actual population and for location where the skewness towards Lagos, despite efforts, is evident (see Appendix C). In addition, with regards to age, it is important to point out that the median age in the sample is substantially higher than the national median age of 17 (Statista, 2023). However, the age distribution of the data sample collected by Webbhaptic is nevertheless considered to be an improvement as it includes all different age ranges while the Pilot study effectively only included young people (mode almost equivalent to median while in this study mode is still low but median higher). Therefore, all in all (with regards to age, education and location), Webbhaptics judgemental sampling optimised representativeness within the study's inherent resource limitations. For a comprehensive sample representativeness (comparison between Pilot study, Main/Actual Study and real population statistics, see Appendix E).

### 3.5.6 Data collection

Webbhaptic collected partly through phone interviews but mainly by distributing the survey online through their online platforms to panellists. The pilot survey was officially listed 2024-01-17 and as the survey was fundamentally unchanged in its structure, the survey was replicated (with an add-on of Residence question) in Qualtrics for the official publication of the survey 2024-01-21. Thereafter,

Wepphaptic started collecting responses between 2024-01-22 and 2024-01-29. 2024-01-30, the datafile was fully received, which was subsequently followed by assessment of validity and reliability.

### 3.5.7 Analytical instrument

The main analytical instrument used was PLS-SEM (Partial Least Square - Structural Equation Modelling). PLS-SEM is the preferred statistical analysis tool when the sample size is small, when the model to be tested is complicated with multiple constructs and when the aim of the analysis is to identify driving factors in a construct (Hair et al., 2017). The results of the PLS-SEM model should be analysed by assessing both the measurement model and the structural model (Hair et al., 2017). Hence, the analysis started with a data cleaning and clearing process to ensure that only valid answers were included and evaluated (see 3.5.5 “Sampling” for criteria). Thereafter, reliability was measured through Cronbach's Alpha and Composite Reliability (rho_A). For validity, both the convergent (Factor Loadings and Average Variance Extracted) and discriminant validity (Cross-Loadings, Fornell-Larcker criterion and HTMT) were statistically measured. Furthermore, a full collinearity test was conducted through Variance Inflation Factors (VIF) as this determines to what degree regression coefficients, standard errors and significance tests are inflated due to the occurrence of multicollinearity (Garson, 2016; Hair et al., 2017). The VIF test was applied to the inner model with an acceptable range of ($0.2 < VIF < 4$) and the outer model encompassing the collinearity of items constituting the variables with an acceptable range of ($0.2 < VIF < 5$) (Garson, 2016).

After testing the measurement model, the research model was tested through PLS-SEM. This was evaluated using bootstrapping with 5000 subsamples for significance testing and the PLS-SEM algorithm for path coefficient calculations and model fit. The adjusted R-squared was calculated to evaluate in-sample predictive power by measuring the independent variables' combined effect on the models' dependent variables while the path coefficients showed the importance of each trust dimension (Hair et al., 2017). The effect size was also calculated as $f^2$ measures the effect on $R^2$ when one independent variable is removed from the model (Hair et al., 2017). It is important as it reflects the importance and impact of each independent variable. Hair et al. (2017) provided indicative values in order to assess the effect size $f^2$, with <0.02 showing no effect, 0.02 showing small effect, 0.015 showing medium effect and 0.35 showing large effect as the main rule of thumbs to benchmark the results against. Thereafter, each hypothesis was tested in a systematic manner, focusing on the path coefficients and significance levels. Finally, to assess the model fit the standardised root mean square residual (SRMR) was measured and assessed. The SRMR is a model fit measure still in its early development and might not perfectly explain

the model fit (Hair et al., 2017). However, SRMR has been a adopted as a model fit measure by previous literature (Mashatan et al., 2022; Mendoza-Tello et al., 2019; Sagheer et al., 2022; Söilen & Benhayoun, 2022; Singh & Söderlund, 2019). Values below 0.08 are considered a good model fit (Hair et al., 2017). However, SRMR for PLS-SEM models with a value of below 0.1 can be acceptable, especially given in an exploratory approach (Garson, 2016).

It is important to emphasise that the structural equation model (SEM) was controlled for potentially impactful control variables, such as Age, Gender, Residence, Education and Stablecoin Awareness. Correlation matrices were also created to enhance the understanding of the trust dimensions and their internal relationships. For all tests involving statistical significance measurement, an Alpha level of 5% (0.05) was used as a common practice for social sciences (Hair et al., 2017). This level strikes a reasonable balance between minimising the risk of Type I error (false positives) and Type II error (false negatives), providing an acceptable threshold for determining statistical significance.

## 3.6 Validity and Reliability Assessment

In the pursuit of obtaining a high level of credibility in a thesis, strong validity and reliability needs to be ensured as they represent effective measures of the thesis quality relative to random or systematic measurement errors (Eliasson, 2013). Although reliability and validity are closely related and often correlated (Eliasson, 2013), they are two distinctively important concepts. More broadly, reliability, convergent validity and discriminant validity are the most important factors to be assessed in order to evaluate the quality of the measurement model (Hair et al., 2017).

### 3.6.1 Validity

#### 3.6.1.1 External validity

The study's generalisability is essential for its external validity and ensuring a representative sample is crucial for this validity in quantitative research (Bryman & Bell, 2011). This study aimed to reflect the Nigerian population as closely as possible, despite resource limitations. Through Webbhaptic´s judgmental sampling and demographic quotas, the sample better represents the Nigerian population, although it is skewed towards internet users, which does not fully encompass Nigeria´s diversity as millions of Nigerians lack access to the internet (Adepetun, 2022). Consequently, not every Nigerian had an equal chance to participate (Aidley, 2019). Despite these limitations, the sample´s distribution across

key demographics such as age, gender, education and residence ensured a strong degree of representativeness, making the external validity more than acceptable.

#### 3.6.1.2 Internal validity

Internal validity refers to the extent to which a study can establish a causal relationship between the independent and dependent variables, free from confounding factors (Bryman & Bell, 2011). First of all, to ensure internal validity, previous research related to measuring the same variables as in this research was utilised as a basis for the construction of most survey questions.

In the rare cases of non-existent previous literature measuring the same construct in the way needed for this research, the authors have created their own constructs in conjunction with experts in Nigeria, as well as being approved by faculty members of SSE (See Appendix D). Furthermore, a control question at the end of the survey was included in order to ensure attentive responses that have been following the subject matter throughout the survey and thus to enhance the data quality. Furthermore, to minimise the risk of respondents being affected by previous questions and information, the order of questions was deeply considered, aligned with Söderlund (2005), by for instance not placing all demographic questions in the beginning.

Most importantly, the validity was statistically tested in a recommended way for SEM tested models through convergent validity and discriminant validity (Hair et al., 2017). Convergent validity is referred to as "...the extent to which a measure correlates positively with alternative measures of the same construct." (Hair et al., 2017, p.112). Furthermore, discriminant validity refers to "...the extent to which a construct is truly distinct from other constructs by empirical standards." (Hair et al., 2017, p.115). Convergent validity is measured using both Factor Loadings (FL > 0.8) and Average Variance Extracted (AVE > 0.5) (Hair et al., 2017). Discriminant validity was estimated by assessing the Cross-Loadings (CL>0.7), Fornell-Larcker Criterion (FLC, acceptable level when intersection between the same constructs are higher than any other values in that column) and heterotrait-monotrait ratio (HTMT<0.9) (Hair et al., 2017; Albayati et al., 2020). The cross-loadings are analysed by looking at the intercorrelation of variables, more specifically the loadings explicitly chosen for one construct should have greater correlation than any of the other correlation (Hair et al., 2017). The Fornell-Larcker criterion "...compares the square root of the AVE values with the latent variable correlations." (Hair et al., 2017, p.115-116). Finally, assessing the discriminant validity through the HTMT of 0.9 is applied as a cut off value, with higher values typically inferring a lack of discriminant validity (Hair et al., 2017). When statistically tested (See Results 4.1), the overall internal validity is considered to be high.

### 3.6.2 Reliability

Reliability is concentrated on to what extent the results of a research paper are repeatable assuming the exact same test object and method and consists of three main dimensions: stability, internal reliability and inter-observer consistency (Bryman & Bell, 2011). Although not directly tested through this study, stability, as a proxy for the measure´s consistency over time, is derived from a relatively strong base of previously validated measurements in the existing literature (See Measures 3.5.3). However, the reliability of the entire model can not be assumed to be inherently stable given its novel and exploratory purpose, which is evident from some constructs in which the previous literature is effectively non-existent. Furthermore, the concept of internal reliability has been carefully considered in order to test coherence among multiple indicators, specifically through testing for Cronbach's Alpha (acceptable level > 0.6 since exploratory focused research) and Composite Reliability (CR) [rho c] (acceptable level > 0.6) as appropriate measurements (Hair et al., 2017). CA is more conservative and may underestimate reliability due to equal loading assumptions, whereas CR adjusts for factor loadings. Acceptable CR values range from 0.60 to 0.90, with higher values indicating greater reliability. Values below 0.60 suggest a lack of reliability, while values above 0.90, particularly above 0.95, indicate overly similar measures (Hair et al., 2017). CR, however, can overestimate reliability. Thus, this study uses CA as a basic requirement (>0.6) but emphasises Composite Reliability [rho a], which balances CA and CR by averaging factor loadings (Hair et al., 2017). From the test results (see Results 4.1), internal reliability is considered to be high and the questions with acceptable levels (absolute majority) were then indexed.

Finally, in order to address the inter-observer consistency as the third main element of reliability, the study limited the use of open - ended questions (only when deemed to be necessary for measuring Age as a variable, see Appendix B, Age). This approach was pursued to effectively mitigate inconsistencies that often occur when multiple observers interpret the same data differently (Bryman & Bell, 2011).

Lastly, it is important to emphasise that several hygiene actions were taken in order to, in a logical order, enhance the overall reliability of what was being measured and the content of the questionnaire. This involved reviewing the survey several times before distribution, followed by review made by fellow students, followed by review by local experts and researchers physically settled in Nigeria and then, ultimately, followed by review by faculty members at SSE and, above all, our supervisor.

# 4. Results

In this section the results and analysis of the data will be presented. Regarding the descriptive statistics of the variables and correlations of the factors, these can be found in Appendix F. The result section is structured in accordance with previous literature on PLS-SEM results and will start with the results of the measurement model focusing on the reliability and validity, followed by the results of testing the structural model and its underlying hypotheses.

## 4.1 Results of the Measurement Model

All constructs had Cronbach's Alpha (CA) and Composite Reliability (CR) values of above 0.6 except for two constructs, them being Stablecoin Privacy and Naira Privacy with <0.6 (Table 4.1). Hence, the two constructs not reaching the required level of CA, will be restructured as single item measure from here on, where the item most suitable to represent the intended measure to the largest degree is picked. Additionally, of all the remaining multiple item constructs, the lower level of CR [rho a] was satisfied. For Intention, the Composite Reliability [rho a] was found to be unexpectedly high [0.919], but is still deemed reliable given its clear deductive basis (See Appendix D). Consequently, the reliability is overall deemed to be more than acceptable.

| Construct | Cronbachs Alpha (>0.6) | Composite Reliabilty (rho a) | Composite Reliabilty (rho c) |
|---|---|---|---|
| Attitude | 0.887 | 0.888 | 0.930 |
| Intention | 0.918 | 0.919 | 0.948 |
| Stablecoin Store of Value | 0.796 | 0.859 | 0.905 |
| Stablecoin Regulations | 0.812 | 0.848 | 0.913 |
| Stablecoin Privacy | *0.385** | *-0.632** | *0.027** |
| Stablecoin Traceability | 0.848 | 0.850 | 0.929 |
| Stablecoin Security | 0.820 | 0.821 | 0.918 |
| Stablecoin Reliability | 0.825 | 0.829 | 0.920 |
| Naira Store of Value | 0.742 | 0.746 | 0.886 |
| Naira Regulations | 0.859 | 0.862 | 0.934 |
| Naira Privacy | *0.486** | *2.471** | 0.707 |
| Naira Traceability | 0.820 | 0.822 | 0.917 |
| Naira Security | 0.623 | 0.649 | 0.839 |
| Naira Reliability | 0.679 | 0.743 | 0.858 |

***Table 4.1:*** *Summary of the reliability measures of cronbach's alpha and composite reliability for all multivariate measurements.*

As shown in Table 4.2, all FL are above 0.80, indicating acceptable levels for all measurements. All AVE exceeds the minimum required level of 0.5 with the lowest score being 0.724. Overall the FL and AVE values demonstrate a high level of convergent validity in the research.

Moreover, all cross-loadings have a value over 0.7 (Table 4.3), indicating a more than sufficient result in terms of the cross-loadings criterion. All constructs had an acceptable Fornell-Larcker value (Table 4.4), thus fulfilling the required level of the square root of the AVE's.

Furthermore, all HTMT values were below the value of maximum of 0.90, except the the intersections of Intention & Attitude which exceeded the value (0.922). The remaining variables are found to be at an acceptable level (Table 4.5).

Lastly, Variance Inflation Factor was applied to measure collinearity for both the relationships in the inner model ($0.2 < VIF < 4$) and for the outer model items ($0.2 < VIF < 5$). All VIF values were within the acceptable range (Table 4.6). Hence, this indicates a low probability of the existence of collinearity.

| Construct | Factor Loadings | AVE |
|---|---|---|
| **Attitude** | | 0.815 |
| Att1 | 0.877 | |
| Att2 | 0.921 | |
| Att3 | 0.910 | |
| **Intention** | | 0.859 |
| Int1 | 0.932 | |
| Int2 | 0.938 | |
| Int3 | 0.910 | |
| **Stablecoin Store of Value** | | 0.827 |
| SSoV1 | 0.939 | |
| SSoV2 | 0.878 | |
| **Stablecoin Regulations** | | 0.840 |
| SReg1 | 0.895 | |
| SReg2 | 0.938 | |
| **Stablecoin Security** | | 0.848 |
| SSec1 | 0.924 | |
| SSec2 | 0.917 | |
| **Stablecoin Reliability** | | 0.851 |
| SReli1 | 0.929 | |
| SReli2 | 0.916 | |
| **Stablecoin Transparency** | | 0.868 |
| STra1 | 0.928 | |
| STra2 | 0.935 | |
| **Naira Store of Value** | | 0.795 |
| NSoV1 | 0.881 | |
| NSov2 | 0.902 | |
| **Naira Regulations** | | 0.876 |
| NReg1 | 0.941 | |
| NReg2 | 0.932 | |
| **Naira Security** | | 0.724 |
| NSec1 | 0.890 | |
| NSec2 | 0.809 | |
| **Naira Reliability** | | 0.751 |
| NReli1 | 0.916 | |
| NReli2 | 0.814 | |
| **Naira Transparency** | | 0.847 |
| NTra1 | 0.925 | |
| NTra2 | 0.915 | |

***Table 4.2*** *Convergent Validity measurements Factor Loadings and Average Variance Extracted.*

| | Intention | Attitude | SCT | STT | NCT | NTT | S SoV | S Reg | S Sec | S Reli | S Pri | S Tra | N SoV | N Reg | N Sec | N Reli | N Pri | N Tra |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Int1** | **0.932** | 0.800 | 0.593 | 0.663 | -0.007 | 0.200 | 0.592 | 0.421 | 0.563 | 0.549 | 0.023 | 0.449 | -0.010 | 0.085 | 0.238 | 0.183 | 0.031 | 0.084 |
| **Int2** | **0.938** | 0.760 | 0.581 | 0.634 | 0.035 | 0.214 | 0.605 | 0.409 | 0.556 | 0.556 | -0.003 | 0.479 | 0.029 | 0.103 | 0.267 | 0.185 | 0.010 | 0.091 |
| **Int3** | **0.910** | 0.760 | 0.590 | 0.622 | -0.052 | 0.174 | 0.632 | 0.395 | 0.560 | 0.538 | 0.020 | 0.481 | 0.063 | 0.027 | 0.211 | 0.193 | 0.019 | 0.070 |
| **Att1** | 0.670 | **0.877** | 0.741 | 0.618 | -0.162 | 0.099 | 0.552 | 0.351 | 0.498 | 0.457 | 0.051 | 0.328 | 0.018 | -0.095 | 0.060 | 0.198 | 0.070 | 0.017 |
| **Att2** | 0.768 | **0.921** | 0.584 | 0.656 | -0.005 | 0.240 | 0.550 | 0.379 | 0.577 | 0.579 | -0.040 | 0.475 | -0.064 | 0.075 | 0.197 | 0.217 | -0.042 | 0.116 |
| **Att3** | 0.817 | **0.910** | 0.641 | 0.666 | -0.033 | 0.206 | 0.576 | 0.418 | 0.591 | 0.578 | 0.046 | 0.447 | -0.019 | 0.049 | 0.193 | 0.197 | 0.012 | 0.054 |
| **SCT** | 0.634 | 0.724 | **1.000** | 0.734 | -0.076 | 0.088 | 0.613 | 0.382 | 0.475 | 0.512 | 0.108 | 0.325 | 0.037 | -0.049 | 0.088 | 0.177 | 0.063 | 0.060 |
| **STT** | 0.690 | 0.717 | 0.734 | **1.000** | -0.012 | 0.119 | 0.628 | 0.456 | 0.581 | 0.617 | 0.079 | 0.413 | 0.003 | 0.035 | 0.162 | 0.176 | 0.086 | 0.124 |
| **NCT** | -0.008 | -0.072 | -0.076 | -0.012 | **1.000** | 0.411 | -0.049 | 0.116 | 0.130 | 0.173 | 0.004 | 0.245 | 0.242 | 0.619 | 0.343 | 0.374 | 0.134 | 0.392 |
| **NTT** | 0.212 | 0.202 | 0.088 | 0.119 | 0.411 | **1.000** | 0.129 | 0.101 | 0.248 | 0.214 | -0.076 | 0.348 | -0.006 | 0.480 | 0.569 | 0.554 | -0.021 | 0.524 |
| **SSoV1** | 0.620 | 0.607 | 0.635 | 0.616 | -0.068 | 0.091 | **0.939** | 0.551 | 0.509 | 0.541 | 0.097 | 0.396 | 0.083 | 0.041 | 0.151 | 0.243 | 0.066 | 0.058 |
| **SSoV2** | 0.574 | 0.510 | 0.455 | 0.514 | -0.014 | 0.155 | **0.878** | 0.511 | 0.502 | 0.496 | 0.092 | 0.415 | 0.001 | 0.068 | 0.196 | 0.193 | 0.010 | 0.070 |
| **SReg1** | 0.360 | 0.339 | 0.303 | 0.375 | 0.080 | 0.066 | 0.506 | **0.895** | 0.454 | 0.415 | 0.179 | 0.404 | 0.253 | 0.178 | 0.162 | 0.180 | 0.196 | 0.183 |
| **SReg2** | 0.439 | 0.431 | 0.388 | 0.454 | 0.127 | 0.114 | 0.561 | **0.938** | 0.449 | 0.435 | 0.182 | 0.349 | 0.216 | 0.143 | 0.151 | 0.284 | 0.138 | 0.119 |
| **SSec1** | 0.560 | 0.586 | 0.439 | 0.547 | 0.095 | 0.219 | 0.535 | 0.464 | **0.924** | 0.708 | 0.155 | 0.633 | 0.153 | 0.162 | 0.316 | 0.293 | 0.152 | 0.223 |
| **SSec2** | 0.551 | 0.547 | 0.435 | 0.523 | 0.146 | 0.239 | 0.483 | 0.439 | **0.917** | 0.706 | 0.091 | 0.616 | 0.077 | 0.221 | 0.380 | 0.303 | 0.084 | 0.276 |
| **SReli1** | 0.536 | 0.542 | 0.463 | 0.590 | 0.177 | 0.179 | 0.540 | 0.412 | 0.717 | **0.929** | 0.125 | 0.645 | 0.105 | 0.228 | 0.355 | 0.342 | 0.199 | 0.279 |
| **SReli2** | 0.556 | 0.562 | 0.483 | 0.547 | 0.142 | 0.217 | 0.514 | 0.445 | 0.700 | **0.916** | 0.135 | 0.575 | 0.115 | 0.241 | 0.381 | 0.369 | 0.132 | 0.235 |
| **SPri** | 0.014 | 0.021 | 0.108 | 0.079 | 0.004 | -0.076 | 0.104 | 0.197 | 0.134 | 0.141 | **1.000** | 0.029 | 0.346 | -0.030 | 0.025 | 0.013 | 0.431 | -0.003 |
| **STra1** | 0.475 | 0.432 | 0.304 | 0.375 | 0.200 | 0.296 | 0.433 | 0.392 | 0.652 | 0.644 | 0.056 | **0.928** | 0.135 | 0.297 | 0.379 | 0.271 | 0.165 | 0.368 |
| **STra2** | 0.468 | 0.431 | 0.301 | 0.395 | 0.254 | 0.351 | 0.393 | 0.365 | 0.613 | 0.592 | 0.000 | **0.935** | 0.120 | 0.331 | 0.440 | 0.344 | 0.142 | 0.411 |
| **NSoV1** | 0.004 | -0.058 | 0.047 | -0.004 | 0.206 | -0.004 | 0.021 | 0.205 | 0.065 | 0.086 | 0.338 | 0.089 | **0.881** | 0.161 | -0.013 | 0.096 | 0.503 | 0.031 |
| **NSov2** | 0.045 | 0.012 | 0.020 | 0.008 | 0.225 | -0.006 | 0.072 | 0.244 | 0.156 | 0.125 | 0.282 | 0.152 | **0.902** | 0.249 | 0.057 | 0.137 | 0.362 | 0.087 |
| **NReg1** | 0.078 | -0.008 | -0.051 | 0.047 | 0.599 | 0.417 | 0.071 | 0.180 | 0.191 | 0.257 | -0.016 | 0.312 | 0.236 | **0.941** | 0.440 | 0.397 | 0.050 | 0.415 |
| **NReg2** | 0.067 | 0.033 | -0.041 | 0.017 | 0.559 | 0.484 | 0.034 | 0.142 | 0.198 | 0.217 | -0.041 | 0.320 | 0.198 | **0.932** | 0.464 | 0.452 | 0.032 | 0.496 |
| **NSec1** | 0.252 | 0.172 | 0.068 | 0.141 | 0.255 | 0.539 | 0.136 | 0.126 | 0.323 | 0.322 | -0.013 | 0.408 | 0.005 | 0.424 | **0.890** | 0.492 | 0.015 | 0.589 |
| **NSec2** | 0.180 | 0.108 | 0.083 | 0.135 | 0.341 | 0.419 | 0.188 | 0.170 | 0.322 | 0.363 | 0.064 | 0.335 | 0.045 | 0.396 | **0.809** | 0.515 | 0.110 | 0.400 |
| **NReli1** | 0.128 | 0.132 | 0.107 | 0.101 | 0.371 | 0.555 | 0.165 | 0.162 | 0.271 | 0.301 | 0.000 | 0.312 | 0.096 | 0.434 | 0.577 | **0.916** | 0.071 | 0.517 |
| **NReli2** | 0.248 | 0.294 | 0.224 | 0.230 | 0.264 | 0.382 | 0.282 | 0.322 | 0.301 | 0.388 | 0.028 | 0.257 | 0.143 | 0.339 | 0.421 | **0.814** | 0.136 | 0.326 |
| **NPri** | 0.022 | 0.014 | 0.063 | 0.086 | 0.134 | -0.021 | 0.047 | 0.178 | 0.129 | 0.180 | 0.431 | 0.164 | 0.482 | 0.044 | 0.066 | 0.111 | **1.000** | -0.002 |
| **NTra1** | 0.086 | 0.054 | 0.057 | 0.107 | 0.358 | 0.497 | 0.071 | 0.148 | 0.248 | 0.265 | -0.005 | 0.375 | 0.080 | 0.463 | 0.591 | 0.483 | -0.006 | **0.925** |
| **NTra2** | 0.076 | 0.074 | 0.052 | 0.121 | 0.364 | 0.467 | 0.056 | 0.147 | 0.250 | 0.248 | 0.000 | 0.397 | 0.043 | 0.430 | 0.497 | 0.440 | 0.002 | **0.915** |

***Table 4.3*** *Cross-Loadings*

| | Att | Int | N Pri | N Reg | N Reli | N Sec | N SoV | N Tra | NCT | NTT | S SoV | S Pri | S Reg | S Reli | S Sec | S Tra | SCT | STT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Att** | **0.903** | | | | | | | | | | | | | | | | | |
| **Int** | 0.835 | **0.927** | | | | | | | | | | | | | | | | |
| **N Pri** | 0.014 | 0.022 | **1.000** | | | | | | | | | | | | | | | |
| **N Reg** | 0.013 | 0.078 | 0.044 | **0.936** | | | | | | | | | | | | | | |
| **N Reli** | 0.226 | 0.202 | 0.111 | 0.452 | **0.867** | | | | | | | | | | | | | |
| **N Sec** | 0.168 | 0.258 | 0.066 | 0.482 | 0.587 | **0.851** | | | | | | | | | | | | |
| **N SoV** | -0.024 | 0.029 | 0.482 | 0.232 | 0.131 | 0.027 | **0.891** | | | | | | | | | | | |
| **N Tra** | 0.069 | 0.088 | -0.002 | 0.485 | 0.502 | 0.593 | 0.068 | **0.920** | | | | | | | | | | |
| **NCT** | -0.072 | -0.008 | 0.134 | 0.619 | 0.374 | 0.343 | 0.242 | 0.392 | **1.000** | | | | | | | | | |
| **NTT** | 0.202 | 0.212 | -0.021 | 0.480 | 0.554 | 0.569 | -0.006 | 0.524 | 0.411 | **1.000** | | | | | | | | |
| **S SoV** | 0.620 | 0.657 | 0.047 | 0.057 | 0.243 | 0.186 | 0.053 | 0.069 | -0.049 | 0.129 | **0.909** | | | | | | | |
| **S Priv** | 0.021 | 0.014 | 0.431 | -0.030 | 0.013 | 0.025 | 0.346 | -0.003 | 0.004 | -0.076 | 0.104 | **1.000** | | | | | | |
| **S Reg** | 0.425 | 0.440 | 0.178 | 0.172 | 0.260 | 0.170 | 0.253 | 0.160 | 0.116 | 0.101 | 0.584 | 0.197 | **0.916** | | | | | |
| **S Reli** | 0.597 | 0.591 | 0.180 | 0.254 | 0.385 | 0.398 | 0.119 | 0.279 | 0.173 | 0.214 | 0.571 | 0.141 | 0.464 | **0.923** | | | | |
| **S Sec** | 0.616 | 0.604 | 0.129 | 0.207 | 0.324 | 0.377 | 0.126 | 0.270 | 0.130 | 0.248 | 0.553 | 0.134 | 0.491 | 0.768 | **0.921** | | | |
| **S Tra** | 0.463 | 0.506 | 0.164 | 0.337 | 0.331 | 0.440 | 0.137 | 0.419 | 0.245 | 0.348 | 0.442 | 0.029 | 0.406 | 0.662 | 0.679 | **0.932** | | |
| **SCT** | 0.724 | 0.634 | 0.063 | -0.049 | 0.177 | 0.088 | 0.037 | 0.060 | -0.076 | 0.088 | 0.613 | 0.108 | 0.382 | 0.512 | 0.475 | 0.325 | **1.000** | |
| **STT** | 0.717 | 0.690 | 0.086 | 0.035 | 0.176 | 0.162 | 0.003 | 0.124 | -0.012 | 0.119 | 0.628 | 0.079 | 0.456 | 0.617 | 0.581 | 0.413 | 0.734 | **1.000** |

***Table 4.4*** *Fornell-Larcker Criterion*

| | Att | Int | N Pri | N Reg | N Reli | N Sec | N SoV | N Tra | NCT | NTT | S SoV | S Pri | S Reg | S Reli | S Sec | S Tra | SCT | STT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Att** | | | | | | | | | | | | | | | | | | |
| **Int** | **0.922*** | | | | | | | | | | | | | | | | | |
| **N Pri** | 0.049 | 0.022 | | | | | | | | | | | | | | | | |
| **N Reg** | 0.093 | 0.087 | 0.047 | | | | | | | | | | | | | | | |
| **N Reli** | 0.315 | 0.273 | 0.144 | 0.583 | | | | | | | | | | | | | | |
| **N Sec** | 0.218 | 0.335 | 0.093 | 0.658 | 0.890 | | | | | | | | | | | | | |
| **N SoV** | 0.056 | 0.045 | 0.563 | 0.288 | 0.192 | 0.072 | | | | | | | | | | | | |
| **N Tra** | 0.081 | 0.102 | 0.005 | 0.580 | 0.649 | 0.810 | 0.084 | | | | | | | | | | | |
| **NCT** | 0.078 | 0.035 | 0.134 | 0.667 | 0.443 | 0.443 | 0.281 | 0.433 | | | | | | | | | | |
| **NTT** | 0.214 | 0.221 | 0.021 | 0.519 | 0.654 | 0.712 | 0.007 | 0.578 | 0.411 | | | | | | | | | |
| **S SoV** | 0.729 | 0.766 | 0.047 | 0.071 | 0.343 | 0.276 | 0.086 | 0.087 | 0.050 | 0.152 | | | | | | | | |
| **S Priv** | 0.054 | 0.017 | 0.431 | 0.033 | 0.020 | 0.057 | 0.403 | 0.003 | 0.004 | 0.076 | 0.116 | | | | | | | |
| **S Reg** | 0.493 | 0.504 | 0.202 | 0.209 | 0.366 | 0.245 | 0.329 | 0.202 | 0.125 | 0.109 | 0.720 | 0.218 | | | | | | |
| **S Reli** | 0.697 | 0.679 | 0.197 | 0.301 | 0.530 | 0.562 | 0.151 | 0.338 | 0.190 | 0.236 | 0.701 | 0.155 | 0.567 | | | | | |
| **S Sec** | 0.720 | 0.695 | 0.141 | 0.248 | 0.441 | 0.531 | 0.157 | 0.331 | 0.144 | 0.274 | 0.685 | 0.147 | 0.602 | 0.850 | | | | |
| **S Tra** | 0.532 | 0.574 | 0.178 | 0.395 | 0.430 | 0.599 | 0.171 | 0.502 | 0.265 | 0.377 | 0.542 | 0.033 | 0.495 | 0.791 | 0.814 | | | |
| **SCT** | 0.771 | 0.662 | 0.063 | 0.053 | 0.231 | 0.113 | 0.044 | 0.066 | 0.076 | 0.088 | 0.670 | 0.108 | 0.418 | 0.564 | 0.524 | 0.353 | | |
| **STT** | 0.761 | 0.720 | 0.086 | 0.037 | 0.231 | 0.205 | 0.008 | 0.137 | 0.012 | 0.119 | 0.695 | 0.079 | 0.501 | 0.678 | 0.642 | 0.448 | 0.734 | |

* = value > 0.900

***Table 4.5*** *Heterotrait-Monotrait ratio (HTMT)*

| Path for Inner Model | Variance Inflation Factor (VIF) | Items for Outer Model | VIF | Items for Outer Model | VIF |
|---|---|---|---|---|---|
| Attitude -> Intention | 1.000 | Att1 | 2.216 | NReli2 | 1.359 |
| Stablecoin Trust Currency -> Attitude | 2.196 | Att2 | 3.059 | NPriv | 1.000 |
| Stablecoin Trust System -> Attitude | 2.186 | Att3 | 2.710 | NTra1 | 1.930 |
| Naira Trust Currency -> Attitude | 1.224 | SCT | 1.000 | NTra2 | 1.930 |
| Naira Trust System -> Attitude | 1.229 | STT | 1.000 | SSoV1 | 1.778 |
| Stablecoin Store of Value -> Stablecoin Currency Trust | 1.518 | NCT | 1.000 | SSoV2 | 1.778 |
| Stablecoin Regulations -> Stablecoin Currency Trust | 1.518 | NTT | 1.000 | SReg1 | 1.878 |
| Stablecoin Security -> Stablecoin Technology Trust | 2.803 | Int1 | 3.560 | SReg2 | 1.878 |
| Stablecoin Reliability -> Stablecoin Technology Trust | 2.699 | Int2 | 3.922 | SSec1 | 1.937 |
| Stablecoin Privacy -> Stablecoin Technology Trust | 1.034 | Int3 | 2.831 | SSec2 | 1.937 |
| Stablecoin Traceability -> Stablecoin Technology Trust | 2.061 | NSoV1 | 1.533 | SReli1 | 1.976 |
| Naira Store of Value -> Naira Currency Trust | 1.057 | NSov2 | 1.533 | SReli2 | 1.976 |
| Naira Regulations -> Naira Currency Trust | 1.057 | NReg1 | 2.310 | SPriv | 1.000 |
| Naira Security -> Naira Technology Trust | 1.865 | NReg2 | 2.310 | STra1 | 2.183 |
| Naira Reliability -> Naira Technology Trust | 1.634 | NSec1 | 1.257 | STra2 | 2.183 |
| Naira Privacy -> Naira Technology Trust | 1.018 | NSec2 | 1.257 | | |
| Naira Traceability -> Naira Technology Trust | 1.642 | NReli1 | 1.359 | | |

***Table 4.6*** *Variance Inflation Factors*

## 4.2 Results of the Structural Model

The analysis of the structural model assesses the relationship between constructs in the model. A summary of the results of the structural model can be found in Figure 4.1 and Table 4.8. A summary of the $R^2$ values of the model's endogenous latent variables are found in Table 4.7. There is no generally applicable lowest level of $R^2$ for the variables to be deemed as weak or strong (Hair et al., 2017). However, analysing different research areas and comparing the results of this model to them, the $R^2$ values are at an acceptable level. With the lowest value being 0.376 it still lies above the line of 0.25 that would be considered as a variable with weak predictive accuracy in some fields (Hair et al., 2017).

| Construct | R-square | R-square adjusted |
|---|---|---|
| Attitude | 0.621 | 0.617 |
| Intention | 0.697 | 0.696 |
| Naira Trust Currency | 0.394 | 0.391 |
| Naira Trust System | 0.432 | 0.427 |
| Stablecoin Trust Currency | 0.376 | 0.373 |
| Stablecoin Trust System | 0.413 | 0.407 |

***Table 4.7*** *R-squared and Adjusted R-Square*

Out of the 17 measured effect sizes, five exogenous variables had effects lower than 0.02, seven variables had values below 0.15 but above 0.02, two variables had values between 0.15 and 0.35 and lastly three variables had values higher than 0.35. The effect size $f^2$ can be found in Table 4.8.

Out of the total 17 hypotheses, 12 are supported and 4 are found to be insignificant, therefore, not supported. As mentioned in the method (Section 3.5.7), the cut off value with regards to significance level will be 0.05. The relationship between stablecoin currency trust and attitude, H1a ($\beta = 0.415$, $p<0.001$) is

supported. The relationship H1b ($\beta$ = -0.102, p<0.005) is supported. These results indicate the existence of a substitution effect between the trust in stablecoin and the distrust in the current system, driving the attitude towards using the new payment technology. Hypothesis H2a ($\beta$ = 0.392, p<0.001), the link between stablecoin technology trust to attitude is supported. H2b ($\beta$ = 0.161, p<0.001), the link between Naira technology trust to attitude, is not supported since a negative path coefficient was hypothesised. Hence, H2a and H2b shows no substitution effect, rather both Stablecoin technology trust and Naira technology trust drives the positive attitude towards adopting stablecoin towards using Stablecoins as a payment method.

H3a ($\beta$ = 0.592, p<0.001) is supported and shows a strong correlation between the trust in the store of value of stablecoin and the stablecoin currency trust. H3b ($\beta$ = 0.104, p<0.01) is supported. Thus, trust in the value of a currency seems to have a significant impact on the general trust in a currency. The hypothesis H4a ($\beta$ = 0.036, p>0.05) was rejected, indicating no clear relationship between regulations for Stablecoins and the trust in Stablecoins as a currency. H4b ($\beta$ = 0.595, p<0.001) was found to be significant and therefore supported. Hence, there are ambiguous results with regards to the impact of trust in regulations and the relationship with the trust in a currency.

Hypothesis H5a ($\beta$ = -0.022, p>0.05) and H5b ($\beta$ = -0.071, p>0.05) were both found to be insignificant and hence both hypotheses are rejected. The hypothesis H6a ($\beta$ = -0.085, p>0.05) is insignificant and rejected, indicating no direct observable relationship between the traceability function of Stablecoins and impact on the trust in the stablecoin technology. Hypothesis H6b ($\beta$ = 0.213, p<0.001) is supported. Thus, the effect of traceability on currency technology trust is ambiguous. The hypothesised relationship H7a ($\beta$ = 0.299, p<0.001) and H7b ($\beta$ = 0.276, p<0.001) are both supported. Hence, indicating securities impact on currency technology trust. H8a ($\beta$ = 0.447, p<0.001) and H8b ($\beta$ = 0.293, p<0.001) are both significant and supported. As expected, the relationship H9 ($\beta$ = 0.392, p<0.001) between attitude and intention is supported and strong.

Moreover, the structural model was tested for potential influential variables which included age, gender, residence, education and level of Stablecoin awareness. This was done to ensure the robustness of the model independently of these control variables. The inclusion of these control variables did not result in any statistically significant changes in the path coefficients. With regards to the model fit, in addition to a high R square, the SRMR of this model is 0.045, which is considered a strong model fit (Hair et al., 2017). For the saturated model the SRMR value is below the conservative cutoff value of 0.08. The SRMR value for our estimated model is 0.094 which lies below the more tolerant <0.1 cutoff.

## 4.3 Summary of Results

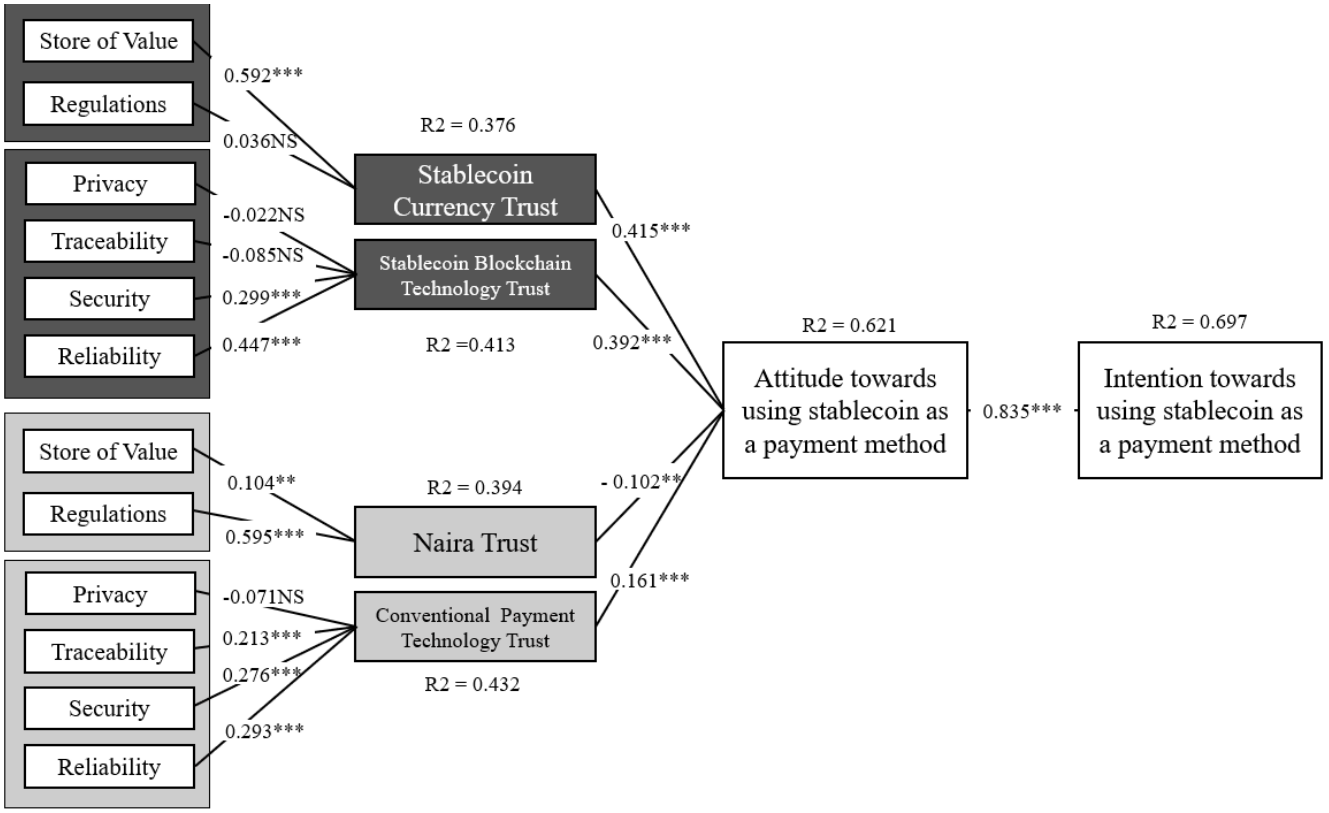



***Figure 4.1*** **p<0.05, **p<0.01, ***p<0.001, NS = Non-Significant. An illustration of the model in this research and the results with regards to path coefficient, significance level and $R^2$.*

| Hypothesis | Path | Path Coeffecient | tValues | P Values | f squared | 2.5% Confidence | 97.5% Confidence | Sinificance (<0.05)? | Result |
|---|---|---|---|---|---|---|---|---|---|
| H1a | S Currency Trust -> Attitude | 0.415 | 7.389 | 0.000 | 0.207 | 0.305 | 0.526 | Yes | Supported |
| H1b | N Currency Trust -> Attitude | -0.102 | 3.393 | 0.001 | 0.022 | -0.158 | -0.042 | Yes | Supported |
| H2a | S Technology Trust -> Attitude | 0.392 | 6.41 | 0.000 | 0.186 | 0.269 | 0.51 | Yes | Supported |
| H2b | N Technology Trust -> Attitude | 0.161 | 4.069 | 0.000 | 0.056 | 0.083 | 0.24 | Yes | Rejected |
| H3a | S Store of Value -> S Currency Trust | 0.592 | 11.863 | 0.000 | 0.370 | 0.491 | 0.687 | Yes | Supported |
| H3b | N Store of Value -> N Currency Trust | 0.104 | 2.754 | 0.006 | 0.017 | 0.032 | 0.178 | Yes | Supported |
| H4a | S Regulations -> S Currency Trust | 0.036 | 0.647 | 0.518 | 0.001 | -0.073 | 0.144 | No | Rejected |
| H4b | N Regulations -> N Currency Trust | 0.595 | 15.387 | 0.000 | 0.553 | 0.516 | 0.667 | Yes | Supported |
| H5a | S Privacy -> S Technology Trust | -0.022 | 0.496 | 0.620 | 0.001 | -0.107 | 0.062 | No | Rejected |
| H5b | N Privacy -> N Technology Trust | -0.071 | 1.942 | 0.052 | 0.009 | -0.42 | 0.004 | No | Rejected |
| H6a | S Traceability -> S Technology Trust | -0.085 | 1.364 | 0.173 | 0.006 | -0.198 | 0.034 | No | Rejected |
| H6b | N Traceability -> N Technology Trust | 0.213 | 3.895 | 0.000 | 0.049 | 0.105 | 0.318 | Yes | Supported |
| H7a | S Security -> S Technology Trust | 0.299 | 3.6 | 0.000 | 0.054 | 0.141 | 0.463 | Yes | Supported |
| H7b | N Security -> N Technology Trust | 0.276 | 4.775 | 0.000 | 0.072 | 0.154 | 0.374 | Yes | Supported |
| H8a | S Reliability -> S Technology Trust | 0.447 | 6.136 | 0.000 | 0.126 | 0.297 | 0.584 | Yes | Supported |
| H8b | N Reliability -> N Technology Trust | 0.293 | 5.167 | 0.000 | 0.092 | 0.178 | 0.393 | Yes | Supported |
| H9 | Attitude -> Intention | 0.835 | 46.78 | 0.000 | 2.297 | 0.797 | 0.867 | Yes | Supported |

***Table 4.8*** *S = Stablecoin, N = Naira/National Currency. Summary of hypothesis, path coefficient, t values, p values, effect size $f^2$ and confidence interval.*

# 5. Discussion & Conclusion

In this section the results will be linked to and discussed with regards to the theory presented earlier. Furthermore, this will be followed by a comprehensive conclusion clearly answering the research question.

## 5.1 Discussion of the Measurement Model

As seen in the result, issues with privacy-related variables were found with regards to reliability.
In addition, Intention had a questionably high Composite Reliability [rho a]. However, since intention is well-supported in previous literature and the privacy construct was separated into the single-items, the combined use of CA and Composite Reliability [rho a] indicates high reliability, especially appropriate for the exploratory focus of this thesis. Moreover, for the author's own constructs the reliability also holds, which reflects a basis of care and critical thinking characterising their construction (See Appendix D).

Furthermore, similar strength is reflected with regards to the convergent validity as the FL and AVE values demonstrate a high level of convergent validity. Furthermore, all HTMT values except for Attitude & Intention were below the value of maximum of 0.90 to ensure distinctiveness between constructs. The higher HTMT value between intention and attitude suggests a strong correlation and low level of distinctiveness. This is theoretically reasonable and thus justifiable as intention is typically strongly influenced by one's attitude. This relationship is well-supported in the literature as highlighted in the theory section which could indicate that these constructs, while distinct, are closely related in this context of behavioural studies. Furthermore, given that the data collection occurred in a time in which the cryptocurrency ban had just been withdrawn (Dzirutwe & Holmes, 2023), it can also be argued that the lack of opportunity to use Stablecoins in practice minimised the perceived distinction between Attitude and Intention.

Hence, all in all, the overall reliability and validity can be concluded to be high for the measurement model. The reliability issue with the privacy variable was handled through separation to a single item and the issues related to intention and attitude are not of any material concern given their strong and reliable theoretical foundation as measures.

## 5.2 Discussion of the Structural Model

### 5.2.1 Trust and Distrust effect on adoption

The results imply that the theory of stability in the value of currencies makes it more attractive to use as a payment method (H1a). Similarly, trust in the Stablecoin blockchain technology enhances the attitude as well (H2a). Hence, both trust dimensions of Stablecoins are in line with previous literature with regard to its influence on adoption.

Furthermore, The Naira trust variable (H1b) was aligned with currency substitution theory. Hence , the interpretation is clear: distrust in the Naira does seem to drive trust in Stablecoins and vice versa, all else equal. However, the effect was the least profound among the four (4) main dimensions. Since the currency substitution theory originated in a world where no cryptocurrencies existed, the effect size would maybe have been different if only two fiat currencies were contrasted against each other (e.g Naira vs US Dollar). More broadly, the findings from testing currency trust, both to Stablecoins and to the Naira (H1a, H1b), indicate the opposite effect to Gresham's law. That is, Gresham's law states that bad currency drives out good currency so that consumers prefer to use the bad currency for payments (Dutu et al., 2005). The findings, however, show that trust in the currency (Stablecoins backed by USD) increases preference for payments with Stablecoins.

Meanwhile, the theorised negative relationship between conventional payment technology trust and attitude towards Stablecoins as a payment method was not in accordance with previous theory. This could be explained by the case that the differences in currency perception are clearly understood, while the differences concerning technology are not due to its intangibility. This in turn could be derived from the trust in technology discussed in Section 2.1. One aspect of technology trust is the general trust towards the willingness to rely on technology in different situations with the belief of a positive outcome (McKnight et al., 2011). Since the blockchain technology as well as the payment technology for conventional currency are both digital, i.e. not considering cash in this research, it could mean that general trust in technology is a common implicit driver of attitude towards using stablecoin as a payment method.

### 5.2.2 Currency Trust

With regards to store of value it is an important underlying factor for currency trust. Hence, the effect of stability is in accordance with previous literature (H3a/H3b).

The effect of regulations on cryptocurrencies trust is not supported (H4a). One possible explanation for this could be that users figured that the decentralisation of the stablecoin blockchain network made the effect of regulations ineffectual, indicated by the non-significance. This can be supported by cryptocurrency adoption growth in Nigeria during the latest years, which has continued to be high both during periods of regulatory approval and bans (Chainanalysis, 2023). Moreover, the regulations with regard to the legal tender currency trust (H4b) was supported. In contrast to Stablecoins, the legal tender is centrally managed leading to national authorities having the ability to influence and set up regulations on the legal tender (Albayati et al., 2020).

### 5.2.3 Technology trust

No supported relationships were found for privacy, regardless of dimension (i.e. privacy to stablecoin blockchain technology trust (H5a) and privacy to legal tender currency trust (H5b) . This opens up for the questioning of the effectiveness of the framing of the item constituting the privacy variable. On the other hand, cultural differences might have an impact on privacy concerns, leading it to not be top of mind in Nigeria as in other parts of the world (Engström et al., 2023).

Traceability as a variable showed ambiguous results, not supported for its effect on stablecoin blockchain technology trust (H6a) and supported for its effect on conventional payment technology trust (H6b). While the items are formulated as simply the ability to trace transactions, the difference in effect could be linked to the underlying reason why someone would like to be able to trace transactions. One explanation could be that in terms of conventional payment technology, in the case of incorrect payments, the traceability can help to get the payment returned in some way. However, with regards to Stablecoins there is not an actor to turn to in order to reverse a wrong transaction hence limiting the usefulness of traceability in terms of cryptocurrencies (Mashatan et al., 2022).

Security is the second most important factor in the model driving trust in the underlying technology for both payment methods (H7a & H7b) and both are supported. Thus, this is in accordance with previous literature.

Reliability appeared to have the strongest relationship towards the technology trust, both for Stablecoins (H8a) as well as conventional payments (H8b). This indicates that the ability of a technology to perform in the way it is expected is the most important factor for technology trust. Additionally, it can be argued

that the importance of reliability in both dimensions is strongly linked to the general trust in technology that captures the willingness to rely on technology and the belief of a positive outcome (McKnight et al., 2011).

### 5.2.4 Attitude to Intention

Aligned with numerous previous papers on adoption theory the link between attitude and intention was further strengthened by this research. Hence, clearly indicating that the attitude towards using Stablecoins as a payment method also indicates the intention towards using Stablecoins as a payment method.

## 5.3 Conclusion

The measurement model is overall considered to be strong, which is demonstrated through the strong reliability, convergent validity and discriminant validity. Through the proposed and statistically tested structural model, this thesis has effectively answered the original research question of this paper, namely:

*"How does trust as a construct and its various underlying dimensions influence the consumer intention to use Stablecoins as a payment method?".*

This paper demonstrates through PLS-SEM that trust is of paramount importance in shaping attitudes toward and intention to use Stablecoins as a medium of exchange, as evidenced by the high R-squared value produced by the model. The study clearly demonstrates how various dimensions of trust play statistically significant roles in explaining attitudes and intentions.

Surprisingly, the most influential dimension for attitudes toward using Stablecoins is trust in Stablecoins as a currency, primarily driven by their store of value. This is closely followed by trust in stablecoin blockchain technology, driven mainly by security and reliability. Although trust in Stablecoins would naturally be expected to drive adoption, the revealing insight is the almost equal importance of trust in both the currency (effectively the US Dollar) and the technology (blockchain).

The third most important dimension is trust in the current payment technology, driven by traceability, security, and reliability. Contrary to the hypothesis derived from substitution theory, trust in the current technology has a positive relationship with stablecoin adoption. The more one trusts the current system (e.g., paying with cards or bank transfers), the more positively one regards using Stablecoins.

Trust in the current currency (Naira), driven by store of value and regulatory support, is the least important but still significant dimension. For this dimension, substitution theory holds true, as distrust in the Naira drives trust in Stablecoins. However, the effect is marginal compared to other dimensions.

The most important finding is not just that trust plays a multidimensional role but that the “adoption narrative” needs questioning. While it is easy to attribute high cryptocurrency adoption to distrust in the currency and current financial system, this study contradicts such a narrative. Positive attitudes toward using Stablecoins are not only, predominantly, driven by trust in Stablecoins themselves (both as a currency and as a payment technology) but are, in fact, also positively influenced by trust in the existing system.

Therefore, the idea that Nigerians adopt crypto solely due to the currency crisis, high inflation and lacking payment infrastructure is at best an unproven hypothesis and at worst a narrative constructed by industry leaders and early adopters. Simply put, the Nigerian with distrust towards the conventional payment system, is likely to also distrust the concept of paying with Stablecoins.

# 6. Implications & Limitations

Theoretical implications are addressed to serve academia with the most important insights while the practical implications are meant to provide businesses, retailers and managers with real actionable and practical value. The thesis finishes by emphasising key limitations and providing concrete recommendations for relevant future research.

## 6.1 Theoretical Implications

This thesis offers several novel, unique and valuable theoretical contributions to the field.
First of all, this study effectively addresses the clearly expressed need of further studies related to the adoption of Stablecoins to be used for payment purposes (Li et al., 2024), as the knowledge is lacking within this field.

Secondly, since the trust in Stablecoins as a currency is found to be of higher importance (or at least equal as the difference is marginal compared to technology trust), this implies that the preference for paying with cryptocurrencies (Stablecoins), is highly positively, driven by the trust in the currency itself. This is important since it defies theories suggesting a negative relationship, such as Gresham's Law, where more

trusted currencies would be used for saving and the less trusted would be used for payments (Dutu et al., 2005).

Thirdly, since both key dimensions (currency and technology) play significant roles, this study contributes to the Sociotechnical Systems Theory, especially when it comes to extending its application for understanding cryptocurrency adoption. Furthermore, since a substitution effect is found for the currency but not for the technology (as the relationship is positive), unique contributions are made to the field of substitution theory, both for cryptocurrency adoption specifically and for new payment adoption in general. With regards to the underlying components of the main four (4) dimensions of trust for Stablecoin adoption, this study contributes to validating some major antecedents of different dimensions of trust such as store of value, security and reliability in this context, although future research is needed (see 6.4).

Consequently, these main theoretical contributions combined, provides fundamental empirical contributions to adoption models of Stablecoins, cryptocurrencies and new payment technologies in general. This is not a new comprehensive adoption model such as TAM and UTAUT since it is focused on trust exclusively, but it does contribute to understanding the important nature of trust and its various dimensions for adoption. That is, trust has evidently been explored to be a multidimensional construct, which has not, before this study, been incorporated into traditional technology adoption models.
Therefore, this study should be regarded as a significant contribution to further develop the most established adoption models.

## 6.2 Practical Implications

As emphasised in the introduction, retailers and businesses might be interested in adopting cryptocurrencies as a payment choice for their customers. This can be done out of different reasons depending on the context. Some major rationales include meeting customer preferences to stay competitive, cost leadership (through lowering marginal transaction costs by reducing fees paid to third party providers such as Visa or Mastercard), differentiation (competitive edge by unique positioning as “tech-savvy”), to build first - mover advantage and/or as a corporate treasury strategy (e.g receiving USD backed Stablecoins that hold value better than the Naira for instance), reach new target markets and enable new investment opportunities (Deloitte, 2023). Consequently, for businesses, retailers and managers interested in this potential adoption in Nigeria and other countries, this thesis offers several contributions of practical value.

Firstly, because the trust in the currency is found to be of the most significant importance, business offering to pay with Stablecoins backed by trusted currencies such as the USD are, all else equal, more likely to succeed in attracting customers than for currencies whose value can not be trusted, e.g Bitcoin.

Secondly, by understanding the critical trust dimensions, retailers can craft marketing messages that address specific concerns (e.g, currency stability by emphasising which currency the cryptocurrency is backed by) and highlight benefits (e.g., security and reliability for transactions enabled by the blockchain) to foster Stablecoin and/or cryptocurrency adoption. Moreover, if the target audience are already showing trust towards the conventional payment technology (e.g paying with credit cards), the marketing message should emphasise how Stablecoins represents the next step in the evolution rather than focusing on the downsides with the established system (due to the positive relationship found). That is, it is recommended to communicate how Stablecoins complement the traditional payment system rather than replacing it. For the currency dimension, on the other hand, emphasising the problems caused by a currency whose value can not be trusted (e.g the Naira) may have an effect. However, focusing on the benefits of using a currency which can be trusted (e.g USD backed Stablecoin) is likely to yield the most effective results. A combination, capitalising on the distrust to the legal tender and the trust to the Stablecoin, may be of most value, but is likely a too complicated marketing strategy.

Thirdly, holding marketing campaigns constant, if the goal is to attract more customers and/or increase their share of wallet by offering the option to pay with Stablecoins, adopters are more likely to be found among those trusting the conventional payment system rather than the opposite. Admittedly, this is general and thus assumes that the specific demographics are held constant.

Furthermore, it can be relevant to spread awareness and educate current and potential customers about Stablecoins (or another cryptocurrency) and how it can function as a medium of exchange before starting to offer that new payment option. In these situations, it is vital for businesses to learn from the found Sociotechnical system insight. That is, to inform about how a cryptocurrency represents two distinct, yet interdependent, dimensions: The underlying currency itself and the technology which enables transfer of value.

## 6.3 Limitations and Suggested Future Research

As with any study, there are limitations and from these limitations, suggested research for the future can be formed. Firstly, the sample representativeness is, despite the diversified geographical and educational distribution, skewed towards the larger cities of Nigeria (mainly Lagos) where people are typically educated and have access to the internet. This limits the representativeness of the total population and therefore the generalisability of the study. Hence, generalising the results should be done with care. However, this is due to the lack of financial resources to ensure accessibility to more rural areas of the country as well as to a larger proportion of uneducated people. To reach these areas and people in Nigeria, resources, cultural adeptness and security would be required to an extent which is outside the scope of a Bachelor thesis. Consequently, future research characterised by greater resources and capabilities to enhance representativeness is suggested.

Secondly, there are limitations related to the chosen variable, or lack of variables. Since this study is exploring a largely unexplored field, only creativity puts the limit for what variables to include to better understand the phenomenon. Within the delimitation of focusing on trust as a construct, more variables could have been included and the chosen ones can be questioned. However, the chosen dimensions and their underlying components were deemed to be the most fundamental and relevant given the scope of the thesis, the exploratory focus and based on theory, expert interviews and the properties of currencies and payment processes. Since the knowledge within this specific field is limited, future research is therefore recommended to understand Stablecoin adoption better by including other variables, both within and outside the field of trust.

Thirdly, for some survey questions, e.g for the store of value construct, no reference to previous literature was made as they were the author's own constructs. The basis throughout the thesis was predominantly deductive, but in the case of no previous literature measuring the same construct, it was deemed necessary to form own constructs. For those constructs, the statistical reliability was strong for the underlying items (questions). However, some uncertainties remain regarding if the items measure what they purport to measure since they are previously untested. Nevertheless, since the focus was exploratory, new discoveries need to be made in these situations. As the formation of constructs such as store of value was closely aligned with the theoretical framework (what represents a currency), previous literature and expert interviews, it was deemed to be a reliable variable. For future research, more effort is suggested to validate the own construct presented in this thesis.

Furthermore, relating to the general trust variables (Stablecoin Currency, Stablecoin Blockchain Technology, Naira Currency and Conventional Payment Technology), only one question was used per construct. This is a limitation as two are typically recommended to enhance reliability (Söderlund, 2005). However, the authors deemed one question per variable to be enough due to its explicit, direct and concrete nature. The choice was also motivated by fighting survey fatigue. Nevertheless, in future research, it is suggested to explore ways to measure these variables through two items per variable to validate the reliability and findings further. Moreover, cultural barriers in survey interpretation and expectations around rewards were initially problematic for the data quality. This issue was largely mitigated by employing Webhaptic, enhancing the cultural adaptiveness and relevance of the survey.

As clarified in Delimitations (1.5), this study focuses on the potential future adoption based on stated intentions. However, despite the proven link between intention and actual behaviour highlighted in the Theory section, actual usage outcomes might differ from these intentions. To address this, future research should ideally focus on the actual usage of cryptocurrencies, particularly Stablecoins, for payment purposes, to validate and extend the findings of intention-based studies.

Finally, the study did not include moderators such as financial literacy or socioeconomic conditions, which could influence trust dynamics. Including such moderators would complicate the model beyond the scope of a Bachelor's thesis, overshadowing the primary insights. However, this foundational study paves the way for future research to examine how these dynamics might be affected by different moderators, offering a promising direction for subsequent investigations.

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# Appendix A - Relevant & Useful Definitions

| **Concept** | **Explanation** | **Source** |
|---|---|---|
| Cryptocurrency | *A cryptocurrency is a medium of exchange such as the US dollar, but is digital and based on cryptographic proof and blockchain technology (see definition below) to verify the transfer of funds and control the creation of monetary units. It is decentralised in nature and is peer-to-peer (i.e no need to go through financial institutions for transfer of value).* | (PWC, 2024) |
| Blockchain | *A digital, distributed transaction ledger, with identical copies maintained on multiple computer systems controlled by different entities* | (Arias-Oliva et al., 2019) |
| Bitcoin (First and largest (in Mkt Cap) cryptocurrency) | *A peer-to-peer version of electronic cash based on cryptographic proof which can be sent directly from one party to another without going through a financial institution.* | (Nakamoto, 2008) |
| Stablecoin | *Special cryptocurrencies designed to minimise price volatility and keep the purchasing power stable through a specific mechanism.* | (Li et al., 2024) |
| Trust | *the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party* | (Mayer et al.,1995) |
| Technology Trust | *Trust related to the favourable specifics of that technology* | (Marella et al., 2020). |
| Conventional Payment Technology | *Whenever this term is highlighted, it refers to the digital channels in which the consumer can pay today through a central intermediary (i.e a bank/financial institution) either through credit card or bank transfer. This is what the research study regards as the existing alternative. That is, the current system in which the new system(adopting Stablecoins for payments) is compared to.* | Own construct |
| PLS-SEM | *A statistical analysis method used to measure and analyse the relationships between multiple variables, often used in studies involving complex models with multiple constructs.* | (Hair et al., 2017) |
| Legal Tender | *The official definition is derived from a legal point of view:* | (Legal Information |

| | | |
|---|---|---|
| | *Legal tender refers to the officially issued currency (coins and banknotes) that must be accepted as payment for debts within a specific jurisdiction.*<br>*Throughout this research it is an umbrella term for whatever is the national currency which you compare the cryptocurrency to. That is, in this thesis the "legal tender" is the Naira, which is the official legally accepted medium of exchange in Nigeria.* | Institute, Cornell Law School) |
| TAM | *Technology Acceptance Model (TAM). A theoretical framework that aims to predict and explain user acceptance of information technology. Two (2) key drivers: Perceived usefulness and perceived ease of use.* | (Davis, 1989) |
| UTAUT | *Comprehensive model that aims to explain user intentions to use an information system and subsequent usage behaviour. Extension of the TAM model. Four (4) key drivers: Performance expectancy, effort expectancy, social influence and facilitating conditions.* | (Venkatesh et al., 2003) |
| UTAUT2 | *The Unified Theory of Acceptance and Use of Technology 2. Extends the original UTAUT model to the context of consumer technology use by adding three (3) new driving constructs for adoption: Hedonic motivation, price value and habit.* | (Venkatesh et al., 2012) |

# Appendix B - Expert Interviews

The insights gathered from multiple experts interviews were conducted during the first week of January 2024 (January 8-14, 2024). The main contributions to the research derived from these interviews were related to:

a) Reinforcing the focus on trust as a multidimensional construct as it was deemed to be the most relevant factor to base the research around given the unique setting of cryptocurrency adoption dynamics in Nigeria.

b) Helping with insights on how to build the conceptual model. Although the vast majority of the structure and underlying variables in the conceptual model was based on trust theory and previous literature, these interviews were particularly with regards to the own constructed measures (apart from the guidance and approval from our supervisor).

The interviewees wanted to remain anonymous.

# Appendix C- Survey

### Block 1: Introduction

Thank you for participating in our research survey.

We are two final year bachelor students from Stockholm School of Economics, Sweden. We are conducting this survey as a part of the data collection needed for our Bachelor thesis, which is focusing on the crypto adoption in Nigeria. More specifically, our purpose is to understand the potential adoption of Stablecoins as a medium of exchange and its implications for the retail industry.

Your answers are anonymous and will not be used for any other purpose than for this research.
You can stop/paus the survey at any time without any penalty.

Please make sure to answer independently, truthfully and honestly, to the best of your ability.

The estimated time to complete the survey is 5 min.

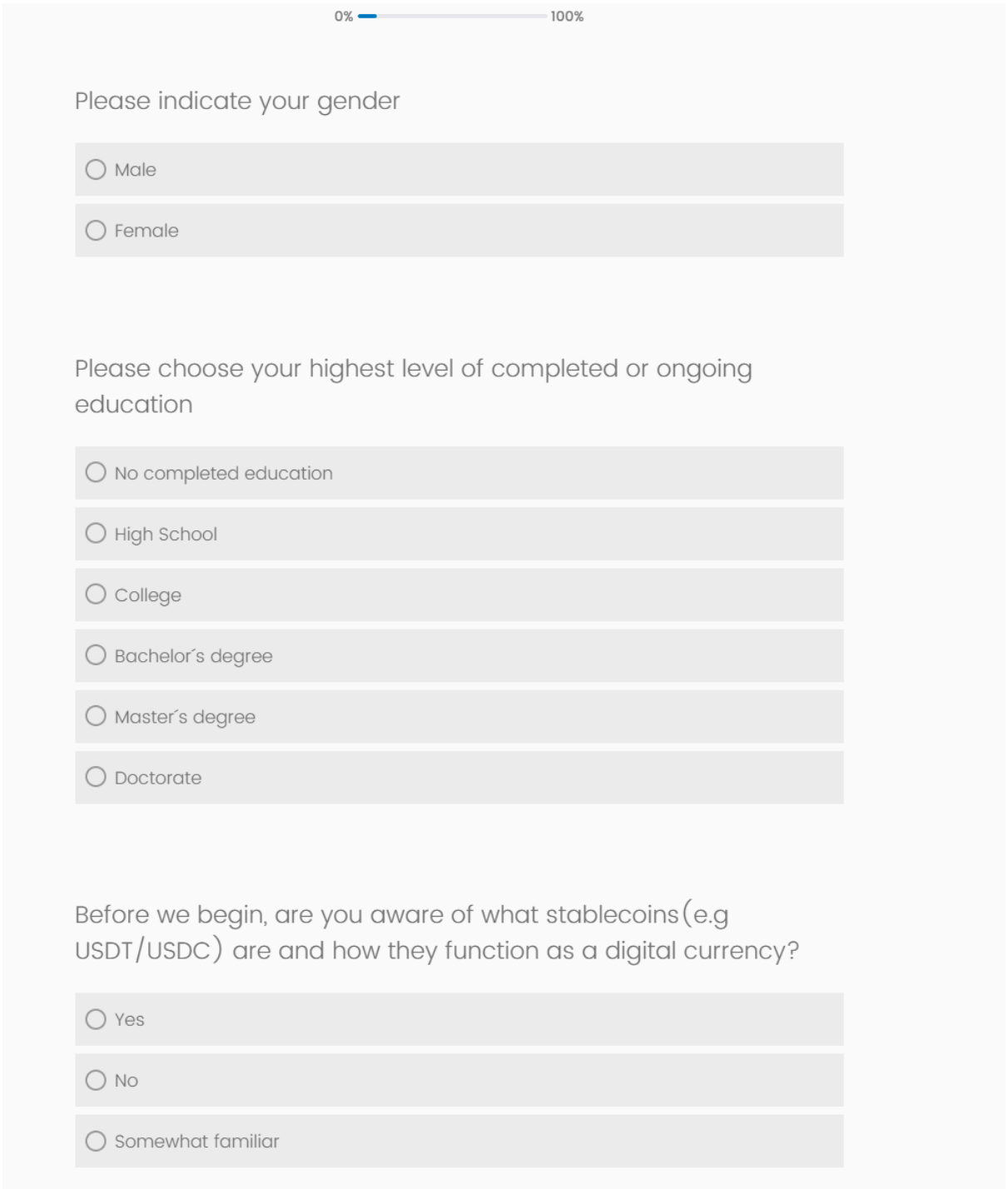
For any questions, doubts or need of clarifications, do not hesitate to contact us:
Victor William Oinonen Svensson
Email: 50776@student.hhs.se
Eric Oetterli
Email: 50787@student.hhs.se

I hereby consent to take part in this study.
If you want to read more about data policy: Consent document

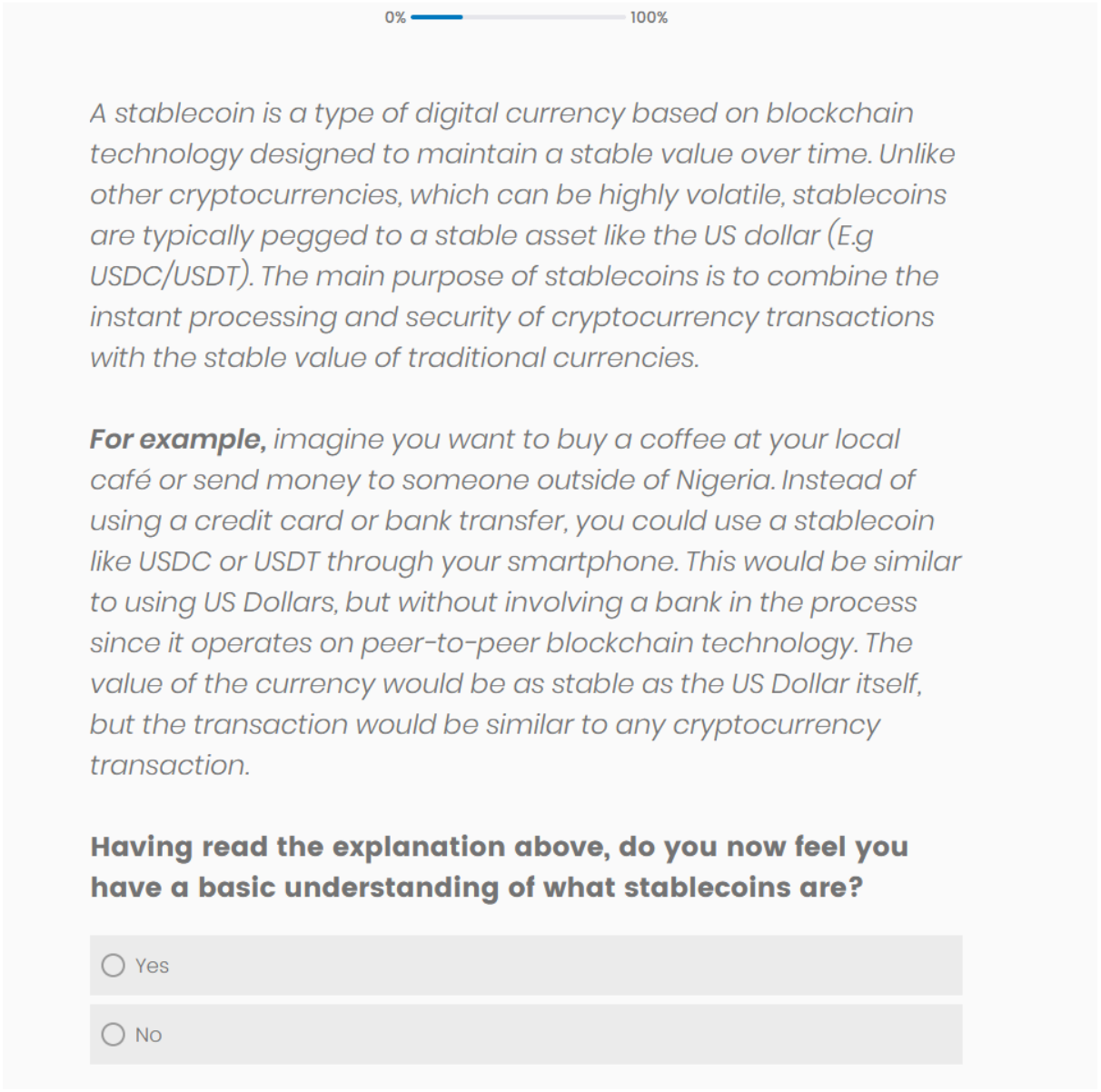
- ○ Yes, I consent.
- ○ No, I don't

Consent document: Consent Document

**Block 2. A) : Some control variables and question about familiarity with Stablecoins**

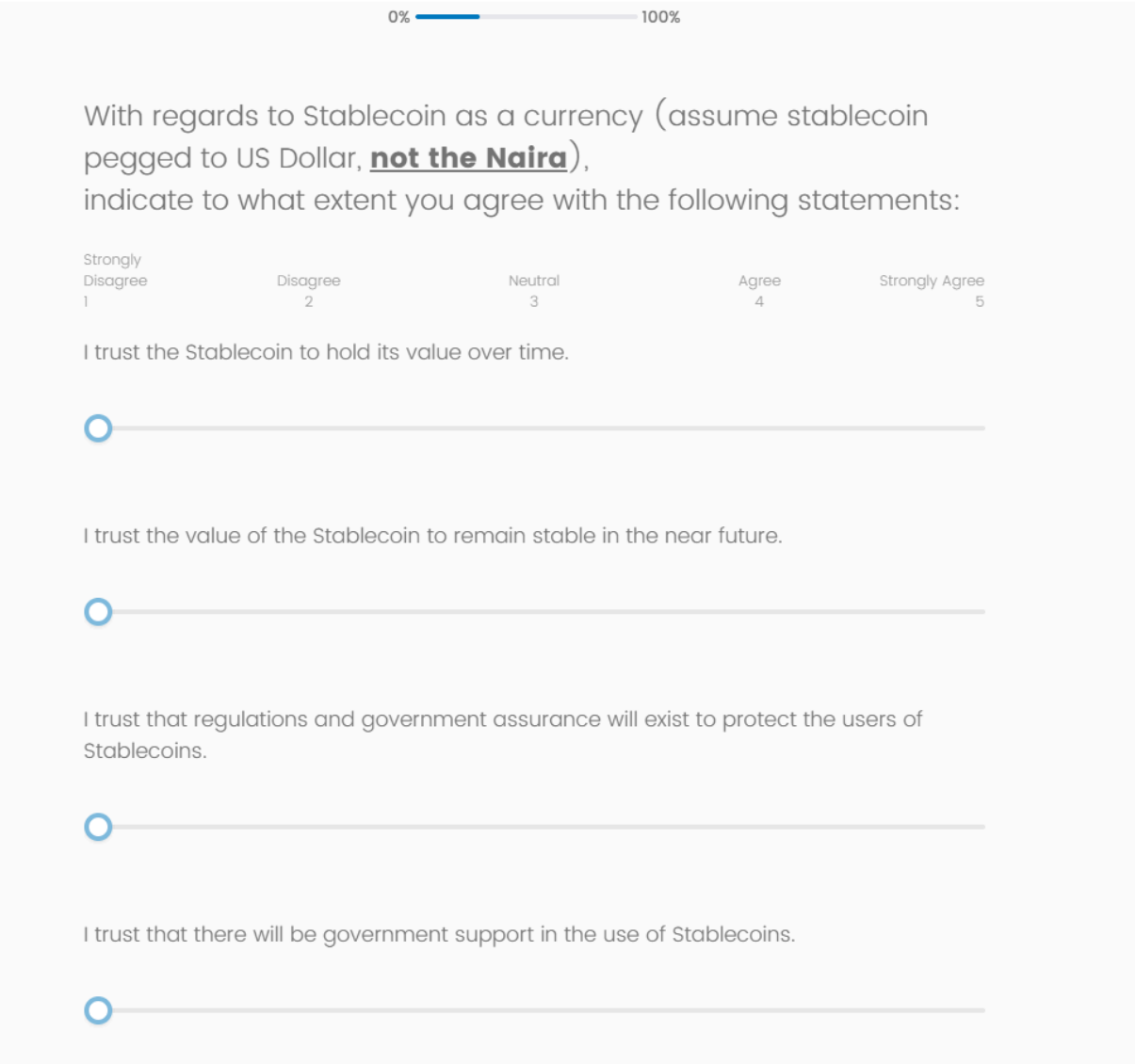


**IF answer "No" or "Somewhat familiar": Block 2. B); Description of Stablecoins (IF No again = exited from the survey)**



**Block 3: Currency Dimension**

**1. A): Stablecoins as a currency**



**3. B): The Naira**

With regards to the legal tender (Naira) as a currency, indicate to what extent you agree with the following statements:

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

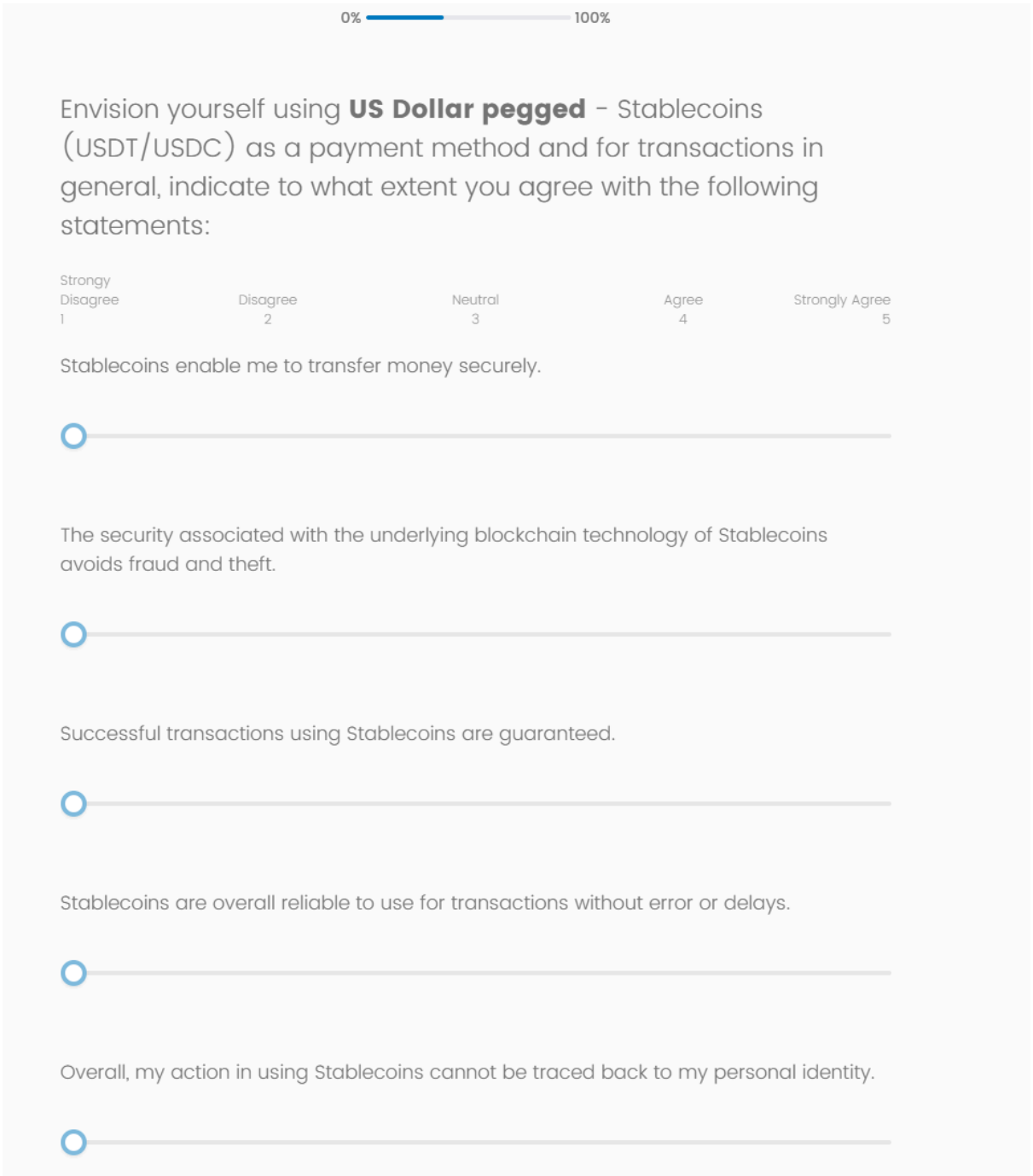
I trust the Naira to hold its value over time.

I trust the value of the Naira to remain stable in the near future.

I trust that regulations and government assurance will exist to protect the users of the Naira.

I trust that there will be government support in the use of the Naira.

**Block 4: Technology Dimension**



Others could misuse my Stablecoin transaction information.

While using Stablecoins, I can trace my transaction easily.

While using Stablecoins, I can identify which transaction has been done.

Envision yourself using digital channels (E.g **bank transfer or credit card**) as a payment method and for transactions in general, indicate to what extent you agree with the following statements:

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

Digital channels enable me to transfer money securely.

Security measures provided by digital channels avoid fraud.

Successful transactions using digital channels are guaranteed.

Digital channels are overall reliable to use for transactions without error or delays.

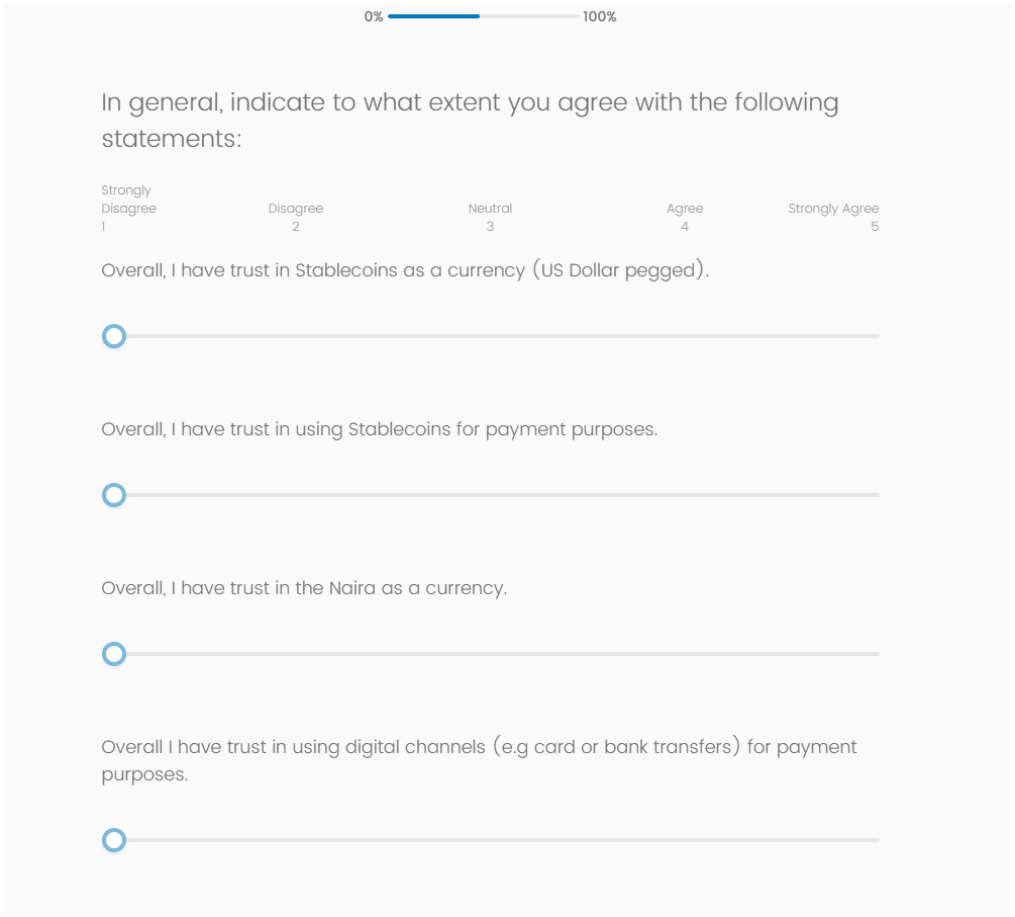
Overall, my action in using digital channels cannot be traced back to my personal identity.

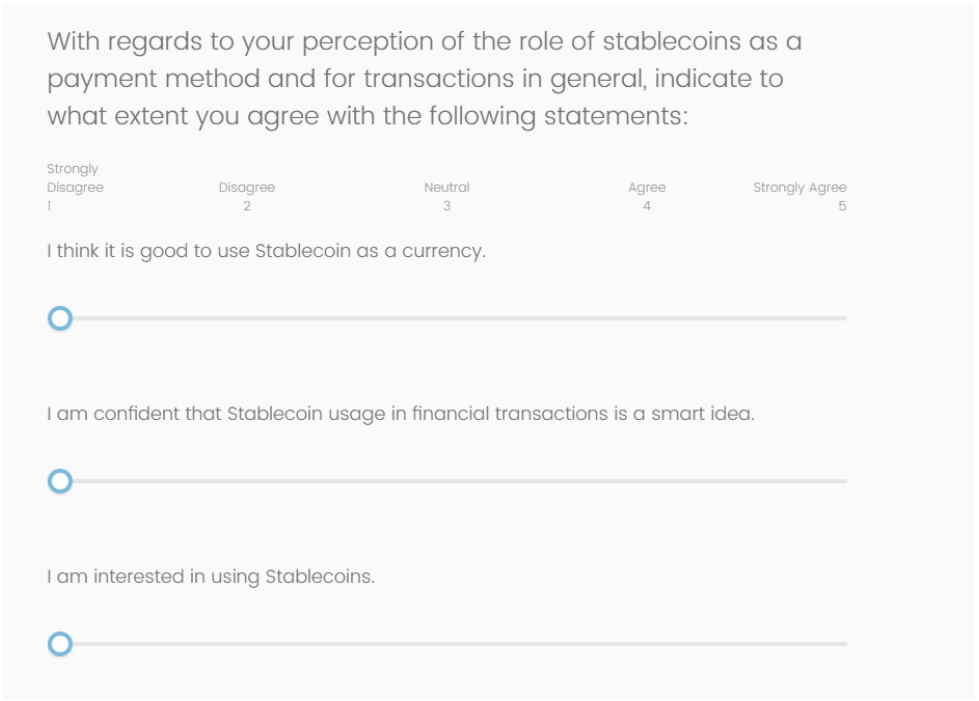
Others could misuse my transaction information when using digital channels.

While using digital channels, I can trace my transaction easily.

While using digital channels, I can identify which transaction has been done.

**Block 5: Broader measures with regards to general trust level for different dimensions as well as both attitude and intention with regards to Stablecoin adoption as a medium of exchange.**



With regards to your intention of using Stablecoins for payments and transactions in general, indicate to what extent you agree with the following statements:

| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

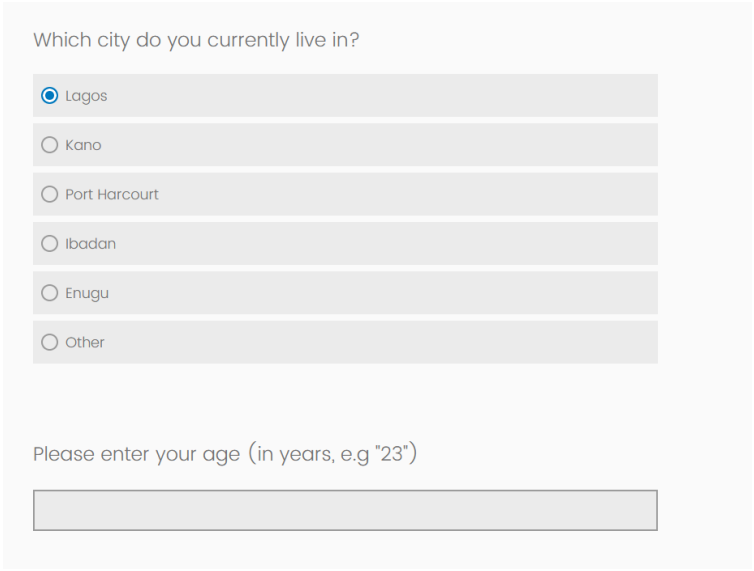
I intend to use Stablecoins for transactions in the future.

If I have chances to use Stablecoins for payment, I will use it.

I intend to use Stablecoins for cross-border transactions in the future.

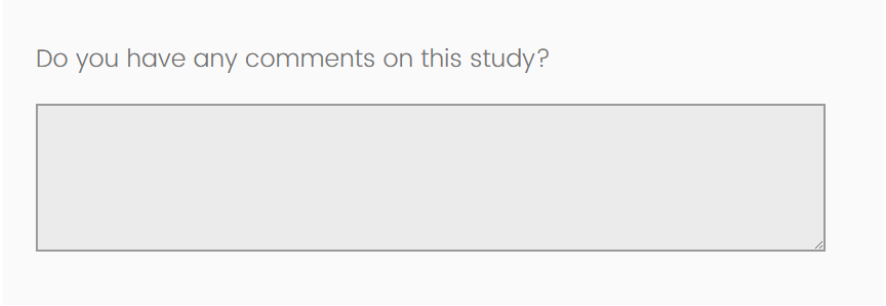
I intend to use a Stablecoin as an alternative source of currency to buy products/services in the future.

**Block 7: Remaining control variables, control question and open comment**









# Appendix D - Measures

| Variable | Purpose | Question(s) | Type of measure | Source/Rationale |
|---|---|---|---|---|
| **Gender** | *To measure sample representativeness + control variable* | *Please indicate your gender* | **Nominal**<br>*1. Man*<br>*2.Women* | * |
| **Education** | *To measure sample representativeness + control variable* | *Please choose your highest level of completed or ongoing education* | **Nominal**<br>*1.No completed education*<br>*2. High School*<br>*3. College*<br>*4. Bachelor's degree*<br>*5. Master´s degree*<br>*6. Doctorate* | * |
| **Stablecoin Awareness** | *Hygiene factor for excluding non-knowledgeable respondents +control variable* | *Before we begin, are you aware of what Stablecoins(e.g USDT/USDC) are and how they function as a digital currency?* | **Nominal**<br>*1. Yes*<br>*2. No*<br>*3. Somewhat familiar* | Own construct (X1)* |
| **Store of value**<br>**S SoV = Stablecoin Store of value**<br>**N SoV = Naira Store of value** | *Direct model testing - directly linked to the research question* | *With regards to Stablecoins as a currency (assume stablecoin pegged to US Dollar),indicate to what extent you agree with the following statements:*<br><br>***SSoV1:*** "I trust the Stablecoin to hold its value over time."<br>***SSoV2*** "I trust the value of Stablecoins to remain stable in the near future."<br><br>*With regards to the legal tender (Naira) as a currency,* | **Likert scale 1-5**<br>*(1 =Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)* | Own construct (X2)* |

| | | | | |
|---|---|---|---|---|
| | | *indicate to what extent you agree with the following statements:*<br><br>***NSoV1:*** "I trust the Naira to hold its value over time."<br>***NSov2:*** "I trust the value of the Naira to remain stable in the near future." | | |
| **Regulations**<br><br>**S Reg = Stablecoin Regulations**<br>**N Reg = Naira Regulations** | *Direct model testing - directly linked to the research question* | *With regards to Stablecoins as a currency (assume stablecoin pegged to US Dollar), indicate to what extent you agree with the following statements:*<br><br>**SReg1:** "I trust that regulations and government assurance will exist to protect the users of Stablecoins."<br>**SReg2:** "I trust that there will be government support in the use of Stablecoins."<br><br>*With regards to the legal tender (Naira) as a currency, indicate to what extent you agree with the following statements:*<br><br>**NReg1:** "I trust that regulations and government assurance will exist to protect the users of Naira."<br>**NReg2:** "I trust that there will be government support in the use of the Naira." | **Likert scale 1-5**<br>*(1 =Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)* | **Reg1:** (Albayati et al., 2020)<br>**Reg2:** (Albayati et al., 2020) |

| | | | | |
|---|---|---|---|---|
| **Privacy**<br><br>**S Pri = Stablecoin Privacy**<br><br>**N Pri = Naira Privacy** | *Direct model testing - directly linked to the research question* | *With regards to using Stablecoins for transactions and as a payment method, indicate to what extent you agree with the following statements:*<br><br>**SPri1: "**Overall, my action in using Stablecoins cannot be traced back to my personal identity."<br>**SPri2: "**Others could misuse my Stablecoin transaction information."<br><br>*Envision yourself using digital channels (E.g **bank transfer or credit card**) as a payment method and for transactions in general, indicate to what extent you agree with the following statements:*<br><br>**NPri1: "**Overall, my action in using digital channels cannot be traced back to my personal identity."<br>**NPri2: "**Others could misuse my transaction information when using digital channels." | **Likert scale 1-5** *(1 =Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)* | **Pri1:** (Mashatan et al., 2022) **Pri2:** (Almajali et al., 2022) |
| **Traceability**<br>**S Tra = Stablecoin Traceability**<br>**N Tra = Naira Traceability** | *Direct model testing - directly linked to the research question* | *With regards to using Stablecoins for transactions and as a payment method, indicate to what extent you agree with the following statements:*<br><br>***STra1:* "**While using Stablecoins, I can trace my transaction easily."<br>***STra2:*** "While using Stablecoins, I can identify which exchange has been done."<br><br>*Envision yourself using digital channels (E.g **bank transfer or credit card**) as a payment method and for transactions in general, indicate to what extent you agree with the following statements:*<br><br>***NTra1:*** "While using digital channels, I can trace my transaction easily." | **Likert scale 1-5** *(1 =Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)* | **Tra1:** (Mashatan et al., 2022) **Tra2:** (Mashatan et al., 2022) |

| | | | | |
|---|---|---|---|---|
| | | ***Ntra2:*** **"**While using digital channels, I can identify which transaction has been done." | | |
| **Security**<br>**S Sec = Stablecoin Security**<br>**N Sec = Naira Security** | *Direct model testing - directly linked to the research question* | *With regards to using Stablecoins for transactions and as a payment method, indicate to what extent you agree with the following statements:*<br><br>**SSec1:** "Stablecoins enable me to transfer money securely."<br>**SSec2:** "The security associated with the underlying blockchain technology of Stablecoins avoids fraud and theft."<br><br>*Envision yourself using digital channels (E.g* ***bank transfer or credit card****) as a payment method and for transactions in general, indicate to what extent you agree with the following statements:*<br><br>**NSec1: "**Digital channels enable me to transfer money securely."<br>**NSec2:** "Security measures provided by digital channels avoid fraud." | **Likert scale 1-5**<br>*(1 =Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)* | **Sec1:** (Almarashde, 2018)<br>**Sec2:** (Mendoza-Tello et al., 2019) |
| **Reliability**<br>**S Reli = Stablecoin Reliability**<br>**N Reli = Naira Reliability** | *Direct model testing - directly linked to the research question* | *With regards to using Stablecoins for transactions and as a payment method, indicate to what extent you agree with the following statements:*<br><br>***SReli1:*** **"**Successful transactions using Stablecoins are guaranteed."<br>***SReli2:*** **"**Stablecoins are overall reliable to use for transactions without error or delays."<br><br>*Envision yourself using digital channels (E.g* ***bank transfer or credit card****) as a payment method and for transactions in general, indicate to what extent you agree with the following statements:* | **Likert scale 1-5**<br>*(1 =Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)* | **Rel1:** (Mashatan et al., 2022)<br>**Rel2:** (Mashatan et al., 2022) |

| | | | | |
|---|---|---|---|---|
| | | ***NReli1:*** "Successful transactions using digital channels are guaranteed."<br>***NReli2: "***Digital channels are overall reliable to use for transactions without error or delays." | | |
| **General Stablecoin Currency Trust**<br>**SCT = Stablecoin Currency Trust** | *Direct model testing - directly linked to the research question* | *In general, indicate to what extent you agree with the following statements:*<br><br>"Overall, I have trust in Stablecoins as a currency (US Dollar pegged)." | **Likert scale 1-5** *(1 =Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)* | Own construct(X3) * |
| **General Stablecoin Technology Trust**<br>**STT = Stablecoin Technology Trust** | *Direct model testing - directly linked to the research question* | *In general, indicate to what extent you agree with the following statements:*<br><br>"Overall, I have trust in using Stablecoins for payment purposes." | **Likert scale 1-5** *(1 =Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)* | Own construct(X3) * |
| **General Naira Currency Trust**<br>**NCT = Naira Currency Trust** | *Direct model testing - directly linked to the research question* | *In general, indicate to what extent you agree with the following statements:*<br><br>"Overall, I have trust in the Naira as a currency." | **Likert scale 1-5** *(1 =Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)* | Own construct(X3) * |
| **General Conventional Payment Technology** | *Direct model testing - directly linked to the research question* | *In general, indicate to what extent you agree with the following statements:*<br><br>"Overall I have trust in using digital channels (e.g | **Likert scale 1-5** *(1 =Strongly Disagree, 2 =* | Own construct(X3) * |

| | | | | |
|---|---|---|---|---|
| **trust**<br>**NTT = Naira Technology Trust** | | card or bank transfers) for payment purposes." | *Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)* | |
| **Attitude**<br>**Att = Attitude** | *Direct model testing - directly linked to the research question* | *With regards to your perception of the role of Stablecoins as a medium of exchange, indicate to what extent you agree with the following statements:*<br><br>***Att1:*** **"**I think it is good to use Stablecoin as a currency."<br>***Att2:*** **"**I am confident that Stablecoin usage in financial transactions is a smart idea."<br>***Att3:*** **"**I am interested in using Stablecoins." | **Likert scale 1-5** *(1 =Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)* | **Att1:** (Almajali et al., 2022)<br>**Att2:** (Almajali et al., 2022)<br>**Att3:** (Albayati et al., 2020 |
| **Intention**<br>**Int = Intention** | *Direct model testing - directly linked to the research question* | *With regards to your intention of using Stablecoins as a medium of exchange, indicate to what extent you agree with the following statements:*<br><br>**Int1:** "I intend to use Stablecoins for transactions in the future."<br>**Int2:** "If I have chances to use Stablecoin for payment, I will use it."<br>**Int3:** "I intend to use Stablecoins for cross-border transactions in the future."<br>**Int4:** "I intend to use Stablecoins as an alternative source of currency to buy products/services in the future." | **Likert scale 1-5** *(1 =Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)* | **Int1:** (Mendoza-Tello et al., 2019)<br>**Int2:** (Gao & Waechter, 2015)<br>**Int3:** Own construct(X4) *<br>**Int4:** (Mashatan et al., 2022) |
| **Residence** | *To measure sample representativeness + potential moderator* | *Which city do you currently live in?* | **Nominal**<br>1. Lagos<br>2. Kano<br>3. Port Harcourt<br>4. Ibadan | * |

| | | | | |
|---|---|---|---|---|
| | | | 5. Enugu<br>6. Other | |
| **Age** | *To measure sample representativeness + control variable* | *Please enter your age (in years, e.g "23")* | **Nominal** *(open space)* | * |
| **Control** | *To ensure high data quality (If wrong answer, respondent = excluded)* | *What was this survey about?* | **Nominal**<br>1.Trust in payment methods<br>2. Political environment in Nigeria<br>3. Oil production | * |

*****The authors fail to recognize any need of justifying classical questions of this nature due to its overwhelming presence in surveys throughout all research domains.*

***Own Constructs*:***

*Below follows more explanations and justifications for the foundation of their own constructs. Although the rationale for including them are all based on robust theory and literature, making them deductive, the construction of own constructs represents an exploratory element of the research approach necessary to achieve the research objective, due to the very specific, niche and novel nature of the research topic.*

***X1:*** *This measure is designed to ensure all respondents possess a basic understanding of stablecoins and their function as a digital currency which is critical for the validity of responses regarding their use and perception. Due to the nascent nature of Stablecoins and the lack of specific measures in existing literature, an "own construct" was developed. This approach is important since it allows the study to control for the quality of responses in order to ensure validity. In addition, the inclusion of this measure was deemed crucial when discussed with experts in Nigeria (personal communication, January 8-14, 2024) as well as with our supervisor.*

***X2:*** *This construct is essential for evaluating the perceived stability of Stablecoins pegged to the US Dollar and the Nigerian Naira. Despite the established theoretical importance of currency stability in influencing trust and usage intentions highlighted in the theory section, no existing instruments adequately capture this for the currencies in question. Thus, an "own construct" was required to directly assess these perceptions. The questions were carefully crafted and approved by our supervisor.*

***X3:*** *A construct with regards to the overall trust towards each dimension was necessary in order to test the relationship hypothesised based on the theory in the conceptual model. That is, as this study explores drives of Stablecoin adoption through the lens of trust as a multidimensional construct in a completely new way, the explanatory power of the hypothesised antecedents to trust were tested through the general trust dimension questions. Moreover, the general trust questions then, simultaneously, served as a predicting variable towards the overall attitude to effectively test the hypotheses related to these four (4) main dimensions aligned with the theoretical framework. Most importantly, the thesis is centred around the multidimensional nature of trust, which itself is a novel endeavour. Therefore, the general trust items were a direct necessity to be able to effectively address the research question and fulfil the research purpose. This construct was approved by our supervisor.*

***X4:*** *Int3 is a specific measure developed to address the crucial role of Stablecoins in cross-border transactions as it is a significant economic activity in Nigeria. Given the unique relevance, expert interviews highlighted the necessity of including this dimension in the study (personal communication, January 8-14, 2024). Consequently, Int3 was developed to capture this key use case and has been approved by our supervisor for inclusion*

# Appendix E - Representativeness

*(Statista, 2023)*

| | Pilot Study | Real Study | Actual Pop |
|---|---|---|---|
| **Gender** | | | |
| Male | 52% | 50,40% | 50,53% |
| Female | 48% | 49,60% | 49,47% |
| **Age** | | | |
| Median | 22 | 35 | 17 |
| Mode | 20 | 22 | 17 |
| **Education** | | | |
| No Education | 1,90% | 9,90% | No data |
| High School | 19,90% | 58,50% | No data |
| College | 14,80% | 2,70% | No data |
| Bachelor | 54,90% | 19,80% | No data |
| Master | 6,00% | 6,70% | No data |
| Doctorate | 2,50% | 2,50% | No data |
| Literate | 98,10% | 90,20% | 70,00% |
| Illiterate | 1,90% | 9,80% | 30,00% |
| **Location** | | | |
| Lagos | 100,00% | 60,70% | 39,63% |
| Kano | 0,00% | 16,00% | 10,57% |
| Ibadan | 0,00% | 13,80% | 9,18% |
| Port Harcourt | 0,00% | 6,20% | 4,80% |
| Enugu | 0,00% | 2,50% | 1,77% |
| Other | 0,00% | 0,80% | 34,05% |

***Table E1*** *An overview of the representativeness of the pilot study, real study and compared to the actual population*

***Key assumptions and clarifications:***

1. *Education:*

a) *Best estimates based on World Bank Literacy Rate Statistics (62 % 2018) where a steady growth from 2018 is assumed (70% today).*

b) *Assumption: High School Education or above implies literacy*

2. *Location: % represent % of Nigerians living in large cities who live in the specific city, e.g Lagos. That is, 39,63% in Lagos does not mean that 39,63% of all Nigerians live in Lagos, but of those living in a big city. The underlying assumption and thus rationale is that access to non-cities (i.e villages) would not be possible and is therefore a sub-optimal benchmark.*

# Appendix F - Descriptives & Correlations

| Variable | No. | Mean | Median | SD | Excess kurtosis | Skewness |
|---|---|---|---|---|---|---|
| **S SoV** | 1 | 3.41 | 3.50 | 1.06 | -0.24 | -0.66 |
| **S Reg** | 2 | 3.32 | 3.50 | 1.07 | -0.61 | -0.40 |
| **N SoV** | 3 | 3.03 | 3.00 | 1.14 | -0.99 | -0.06 |
| **N Reg** | 4 | 3.78 | 4.00 | 1.06 | -0.35 | -0.64 |
| **S Sec** | 5 | 3.65 | 4.00 | 0.97 | 0.24 | -0.80 |
| **S Reli** | 6 | 3.66 | 4.00 | 0.91 | 0.30 | -0.78 |
| **S Pri** | 7 | 3.00 | 3.00 | 1.22 | -0.99 | -0.10 |
| **S Tra** | 8 | 3.79 | 4.00 | 0.91 | 0.44 | -0.78 |
| **N Sec** | 9 | 3.98 | 4.00 | 0.78 | 0.70 | -0.80 |
| **N Reli** | 10 | 3.83 | 4.00 | 0.81 | 0.46 | -0.78 |
| **N Pri** | 11 | 2.85 | 3.00 | 1.32 | -1.22 | 0.07 |
| **N Tra** | 12 | 4.16 | 4.00 | 0.81 | 0.89 | -1.00 |
| **SCT** | 13 | 3.38 | 4.00 | 1.14 | -0.69 | -0.44 |
| **STT** | 14 | 3.58 | 4.00 | 1.09 | -0.26 | -0.68 |
| **NCT** | 15 | 3.91 | 4.00 | 1.08 | -0.12 | -0.84 |
| **NTT** | 16 | 4.10 | 4.00 | 0.88 | 0.52 | -0.89 |
| **Att** | 17 | 3.55 | 4.00 | 1.00 | -0.05 | -0.78 |
| **Int** | 18 | 3.65 | 4.00 | 1.03 | 0.11 | -0.92 |

***Figure F1*** *Shows descriptive statistics for the measured variables in this study.*

| | S SoV | S Reg | S Sec | S Reli | S Pri | S Tra | N SoV | N Reg | N Sec | N Reli | N Pri | N Tra | SCT | STT | NCT | NTT | Att | Int |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **S SoV** | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **S Reg** | 0.58 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **S Sec** | 0.55 | 0.49 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **S Reli** | 0.57 | 0.47 | 0.77 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **S Pri** | 0.10 | 0.20 | 0.13 | 0.14 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **S Tra** | 0.45 | 0.41 | 0.68 | 0.66 | 0.03 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **N SoV** | 0.04 | 0.25 | 0.12 | 0.12 | 0.35 | 0.14 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **N Reg** | 0.06 | 0.17 | 0.21 | 0.25 | -0.03 | 0.34 | 0.23 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **N Sec** | 0.20 | 0.18 | 0.38 | 0.41 | 0.03 | 0.43 | 0.03 | 0.48 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **N Reli** | 0.26 | 0.28 | 0.33 | 0.40 | 0.02 | 0.32 | 0.14 | 0.44 | 0.58 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **N Pri** | 0.04 | 0.18 | 0.13 | 0.18 | 0.43 | 0.16 | 0.49 | 0.04 | 0.08 | 0.12 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **N Tra** | 0.07 | 0.16 | 0.27 | 0.28 | 0.00 | 0.42 | 0.07 | 0.49 | 0.57 | 0.48 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **SCT** | 0.60 | 0.38 | 0.47 | 0.51 | 0.11 | 0.33 | 0.04 | -0.05 | 0.09 | 0.19 | 0.06 | 0.06 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **STT** | 0.62 | 0.45 | 0.58 | 0.62 | 0.08 | 0.41 | 0.00 | 0.03 | 0.16 | 0.19 | 0.09 | 0.12 | 0.73 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **NCT** | -0.05 | 0.11 | 0.13 | 0.17 | 0.00 | 0.24 | 0.24 | 0.62 | 0.35 | 0.36 | 0.13 | 0.39 | -0.08 | -0.01 | 1.00 | 0.00 | 0.00 | 0.00 |
| **NTT** | 0.14 | 0.10 | 0.25 | 0.22 | -0.08 | 0.35 | -0.01 | 0.48 | 0.56 | 0.54 | -0.02 | 0.52 | 0.09 | 0.12 | 0.41 | 1.00 | 0.00 | 0.00 |
| **Att** | 0.61 | 0.42 | 0.61 | 0.60 | 0.02 | 0.46 | -0.03 | 0.01 | 0.16 | 0.25 | 0.02 | 0.07 | 0.73 | 0.72 | -0.08 | 0.20 | 1.00 | 0.00 |
| **Int** | 0.67 | 0.44 | 0.61 | 0.59 | 0.02 | 0.50 | 0.04 | 0.06 | 0.24 | 0.22 | 0.01 | 0.08 | 0.65 | 0.70 | -0.02 | 0.20 | 0.84 | 1.00 |

***Figure F2*** *Shows a correlation matrix for the measured variables in this study.*

# Appendix G - AI Disclaimer

In this thesis, AI (Chat GPT) AI was not used to write text and not for information gathering directly related to the content of the thesis. Rather, Generative AI was used as a complementary resource to enhance and deepen our understanding in the areas mentioned below, specifically for the application of various tools in the method (specifically SEM). Below are the areas in which AI was used:

- **PLS-SEM:** AI was used to better understand PLS-SEM better as we had to learn an entire new system. Admittedly and importantly, most PLS-SEM related information, understanding and knowledge was derived from the founders manual, guidance from Magnus Söderlund and above all the book book by Hair et al. (2017). Nevertheless, AI was also used to further understand how the system works in more depth and ensure a fundamental and critical understanding of this analytical tool. This helped to further enhance the precision, depth and accuracy of our method, result and analysis.
- **Qualtrics:** AI was used to help us find specific functions within Qualtrics that would perfect our study. While we initially relied on standard functions, AI assistance allowed us to uncover more advanced features and refine our data collection process. As a result, this enhanced the quality and precision of our survey design.
- **Idea generation in the very early research phase:** At the beginning of our research, particularly just before and upon arrival in Nigeria, AI was valuable for bouncing ideas and narrowing our research focus. That is, we used AI to explore potential topics within the broad realm of cryptocurrency adoption dynamics, especially considering the unique and specific Nigerian context. Effectively, this brainstorming helped us identify relevant as well as contextually appropriate areas to investigate. This helped pave the way for what later turned more specifically into the idea of focusing on drivers for consumer adoption of Stablecoins. Thereafter, extensive literature review and a week spent with experts within the field, curved the focus into one multidimensional construct: Trust.
- **Interview summaries:** During our expert interviews, Chat GPT was used to summarise the discussions as well as identifying key themes, both to positively affect efficiency and performance. Admittedly, once again, this was mostly used as a complement to our own analysis and understanding, but did help us to capture key insights to a larger extent than what would have been the case without AI.

- **Idea generation for thesis title:** Finally, AI helped us with creative ideas on how we could create a catchy title. Although not identical, this helped pave the way for what then ended up becoming the final thesis title: *Trust: The Must-Discuss in Nigeria´s Stablecoin Fuss.*