ESEPARC
ESWATINI ECONOMIC POLICY
ANALYSIS AND RESEARCH CENTR

CENTRAL BANK
OF ESWATINI
Umntsholi Wemaswati



Eswatini Baseline
Cryptocurrency Survey

Consumer knowledge, behavious, and experiences

December 2023

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DISCLAIMER

The terminology used in this survey report includes the term "cryptocurrency" to reflect the understanding and familiarity of consumers or the general public with the subject matter. However, it is important to note that the Central Bank of Eswatini (CBE), while employing this term for the purposes of this study, prefers the use of the term "crypto-assets."

The Bank's perspective is that the concept of crypto-assets encompasses a broader understanding of digital assets, which may have various functionalities and characteristics beyond the traditional notion of a currency. The Central Bank is the only authority currently capable of issuing any form of currency in Eswatini and for the purposes of this study, cryptocurrency (which is issued by private actors) should not be confused as being a currency issued by the Bank.

Notwithstanding the use of the term "cryptocurrency" within the context of this survey, the Bank maintains its preference for the term "crypto-assets" to accurately describe the scope and nature of digital assets under consideration.

ACRONYMS

AML	Anti-Money Laundering
ASEAN	Association of Southeast Asian Nations
ATM	Automated Teller Machine
BIS	Bank for International Settlements
BO	Beneficial Owner
CAGR	Compound Annual Growth Rate
CBDC	Central Bank Digital Currency
CBE	Central Bank of Eswatini
CBK	Central Bank of Kenya
CDD	Customer Due Diligence
CENFRI	Centre for Financial Regulation and Inclusion
CEX	Centralised Cryptocurrency Exchange
CFT	Combating Financing of Terrorism
CMA	Common Monetary Area
CROTA	Regulatory Observatory for Cryptocurrency Assets
CRS	Congressional Research Service
CSO	Central Statistics Office
DLT	Distributed Ledger Technology
DORA	Digital Operational Resilience Act
EFIU	Eswatini Financial Intelligence Unit
EPRS	European Parliamentary Research Service
ESEPARC	Eswatini Economic Policy Analysis and Research Centre
EU	European Union
FAIS	Financial Advisory and Intermediary Services Act
FATF	Financial Action Task Force
FNB	First National Bank
FOMO	Fear Of Missing Out
FSB	Financial Stability Board
FSC	Financial Services Commission
FSCA	Financial Services Conduct Authority
FSP	Financial Service Provider
FSRA	Financial Services Regulatory Authority (FSRA)
GDP	Gross Domestic Product
GPU	Graphics Processing Unit
ICO	Initial Coins Offering
IFSRF	Intergovernmental Financial Services Regulatory Framework
IFWG	Intergovernmental Fintech Working Group
IGF	Inter Governance Forum
IMF	International Monetary Fund

IPO	Initial Public Offering
ITO	Initial Token Offering
KYC	Know Your Customer
MLM	Multi-Level Marketing
MSME	Micro, Small, and Medium-sized Enterprises
MVTS	Money or Value Transfer Services
NBFIRA	Botswana Non-Bank Financial Institutions Regulatory Authority
NFT	Non-Fungible Token
NPO	Non-Profit Organisations
NRA	National Risk Assessment
OECD	Organisation for Economic Co-operation and Development
SARB	South African Reserve Bank
SSA	Sub-Saharan Africa
STO	Security Token Offerings
TRX	Tron
TV	Television
UAE	United Arab Emirates
UK	United Kingdom
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNODC	United Nations Office on Drugs and Crime
USD	United States Dollar
UTAUT	Unified Theory of Acceptance and Use of Technology
VASP	Virtual Asset Service Providers
WEF	World Economic Forum
XRP	Ripple
ZAR	South African Rand

DEFINITIONS OF KEY TERMS

- **Blockchain:** A form of distributed ledger in which details of transactions are held in the ledger in the form of blocks of information. A block of new information is attached to the chain of preexisting blocks via a computerised process through which transactions are validated.
- **Central Bank Digital Currency (CBDC):** Digital versions of fiat currencies issued by a country's monetary authority, such as a Central Bank. CBDCs are liabilities of the Central Bank and are denominated in the sovereign currency, similar to banknotes and coins.
- **Centralised exchange (CEX):** A crypto-asset trading platform that facilitates the buying and selling of crypto-assets, either for fiat currencies or for another digital asset. The platform functions as an intermediary and sometimes provides custody and other services.
- **Crypto-asset:** A type of private sector digital asset that depends primarily on cryptography and distributed ledger or similar technology. It can be transferred and stored electronically.
- **Cryptocurrency:** A form of crypto-assets and a subset of virtual currencies. It exists on a blockchain and is decentralised. The Central Bank of Eswatini does not recognize cryptocurrencies but rather as crypto-assets.
- **Crypto exchange:** A platform that allows users to buy, sell, and trade crypto-assets.
- **Decentralised Finance (DeFi):** A set of alternative financial markets, products, and systems that operate using crypto-assets and 'smart contracts' (software) built using distributed ledger or similar technology.
- **Digital Token:** Any digital representation of an interest, which may have value, a right to receive a benefit or perform specified functions, or may not have a specified purpose or use.
- **Fiat Money:** Currency established by a government that holds its value relative to other currencies but has no intrinsic value. Examples include the dollar, euro, and yen.
- **Financial Technology (FinTech):** Technology-enabled innovation in financial services that could result in new business models, applications, processes, or products with an associated material effect on the provision of financial services.
- **Initial Coin Offering (ICO):** A way to raise capital or participate in investment opportunities by creating and offering a new crypto-assets to investors in exchange for other crypto-assets or fiat currency.
- **Mining:** One means to create new crypto-assets, often through a mathematical process by which transactions are verified and added to the distributed ledger.
- **Money Laundering:** A process in which funds or property believed to be obtained directly or indirectly through illegal or criminal activities are converted into other assets to conceal their true origin or ownership.
- **On-ramp/Off-Ramp:** Procedures by which fiat money is converted into crypto-assets (on-ramp) or vice versa (off-ramp).
- **Proof of stake (PoS):** A blockchain-specific consensus mechanism for validating entries into a distributed database and keeping the database secure based on validators' pledging or "staking" a certain amount of crypto-assets to have a chance to be chosen for the creation of a new block.
- **Proof of work (PoW):** A blockchain-specific consensus mechanism for validating entries into a distributed database and keeping the database secure. Potential validators compete to solve cryptographic puzzles to be allowed to add transactions to the distributed ledger.
- **Stablecoin:** Designed to offer stability by maintaining a stable value relative to a specific asset or basket of assets. The most common stablecoins are backed by fiat currency, maintaining a 1:1 exchange rate.
- **Wallet:** A software application or device that allows users to store, manage, and interact with their cryptocurrencies. Wallets have private and public keys that enable secure transactions and access to funds.

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EXECUTIVE SUMMARY

The realm of finance has undergone a significant transformation owing to the impact of financial technology (FinTech), particularly with the emergence of cryptocurrency.

Cryptocurrency, a manifestation of digital assets functioning on blockchain technology, has encountered swift adoption and heightened utility, contributing substantively to the maturation of the digital currency ecosystem. The COVID-19 pandemic has further expedited this progression, as companies have embraced digitalisation, and customers have sought digital manifestations of currency, thereby triggering an upsurge within the crypto industry. By July 2023, the total market capitalisation of cryptocurrencies had ascended to $1.210 trillion, with major contenders such as Bitcoin and Ethereum reigning supreme in the market. Nevertheless, the market's profound volatility and the dearth of regulatory frameworks have raised apprehensions concerning consumer safeguarding and market authenticity, thereby compelling policymakers to initiate measures to establish regulatory protocols. The evolving landscape of cryptocurrency regulation necessitates proactive and collaborative endeavours to mitigate potential risks while nurturing innovation.





The African continent has witnessed a substantial increase in cryptocurrency adoption due to various economic factors. However, the regulatory landscape remains diverse and uncertain, with some countries implementing comprehensive regulatory frameworks, while others maintain a more cautious or restrictive approach. As the crypto market continues to evolve globally, African countries face the challenge of finding a balance between fostering innovation and ensuring investor protection and financial stability.

The Eswatini Economic Policy Analysis and Research Centre (ESEPARC) conducted the first ever national cryptocurrency survey to understand the level of awareness among consumers, their involvement with cryptocurrencies, and the opportunities in this market. Digitalisation is a key driver of change and has led to the observed changes in the digital currency ecosystem, presenting both new opportunities and risks. The purpose of the survey was to estimate the size of the cryptocurrency market in the country and characterise the drivers and public perceptions on the matter to inform policy decisions. The objectives of the survey were to understand attitudes towards cryptocurrency and motivations for holding cryptocurrency, understand how EmaSwati purchase and engage with cryptocurrency and learn from their experiences with cryptocurrency, estimate the size of the cryptocurrency market in Eswatini, and evaluate the prevalence of regulatory risks inherent in Eswatini's population participating in the cryptocurrency market. This report focuses on the findings of the survey, providing insights on the current state of cryptocurrencies in Eswatini and the associated risks and opportunities.

II. Methodology

"The study adopted a convenience sampling method, reaching 4,561 respondents from across the different regions of Eswatini."

CBE commissioned ESEPARC to conduct a cryptocurrency survey involving both financial service providers (FSPs) and the general public to gain insights on their cryptocurrency awareness, ownership, and anticipated future involvement. To conduct the survey, ESEPARC adapted and modified the Organisation for Economic Co-operation and Development (OECD) Consumer Insights Survey on Crypto-assets questionnaire[1] to fit the local context. Two questionnaires were developed; the Financial Service Providers (FSPs) and individual survey questionnaire. Using Survey Solutions, the questionnaires were administered online for convenience and accessibility to respondents. The study adopted a convenience sampling method, reaching 4,561 respondents from across the different regions of Eswatini. The survey targeted residents of Eswatini above the age of 18 years old, both those involved and not involved in the cryptocurrency industry. Likewise, a convenience sample method was used for FSPs, thus only 34 companies were interviewed, representing the bank and non-bank financial sector. Descriptive statistics were used to analyse the data.

[1] https://www.oecd.org/financial/education/consumer-insights-survey-on-cryptoassets.pdf

III. Key Findings

a. Development of Cryptocurrency Regulations in Eswatini

“There is no cryptocurrency legislation or regulation in Eswatini”

Cryptocurrency has gained popularity in Eswatini. Even consumers with limited knowledge of financial markets have shown interest in cryptocurrency. Currently, there is no cryptocurrency legislation or regulation in Eswatini. The Central Bank of Eswatini (CBE) has previously issued a public warning through the media, stating that individuals who wish to engage in digital currency trading must assume the associated risks. It is important to note that cryptocurrency is not recognised as legal tender within the country. Both the Financial Services Regulatory Authority (FSRA) and the CBE are closely monitoring regional, African, and global developments.

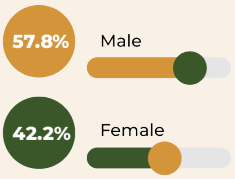
The CBE has been actively conducting research and experimentation on Central Bank Digital Currency (CBDCs) to explore the issuance of a digital version of the country’s currency. This initiative aims to provide the advantages of digital currencies while ensuring a secure and reliable financial system.

The Money Laundering and Financing of Terrorism (Prevention) Act (as amended) of 2016 designates virtual asset service providers as accountable entities. This encompasses virtual currency exchanges that provide exchange or custodial services for cryptocurrencies, as well as the issuance of cryptocurrencies, regardless of whether they are pegged in value to reserve assets, cryptocurrencies, fiat money, or exchange-traded commodities.

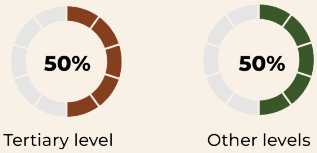
b. Survey Demographics

There were more male participants (57.8%) compared to female participants (42.4%). The youth (18-34 years old) accounted for 69.4% of the total respondents. Approximately half (50.0%) of the survey participants possessed a tertiary level of education. In terms of the occupation, 47.0% were in full-time employment, 17.8% were self-employed, and 12.3% were students. A majority (63.8%) of the respondents indicated an income of less than E10,000.00.

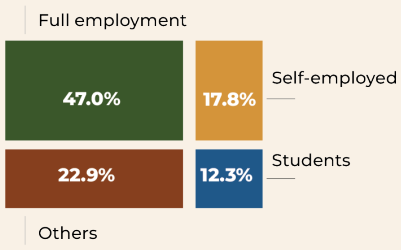
Respondents distribution by sex:



Education Level:



Employment status:





c. Awareness and Ownership of Cryptocurrency

"Only 8.6% of the respondents owned cryptocurrencies, while 12.5% of the respondents had previously held cryptocurrencies but no longer did at the time of the survey for various reasons"

Current cryptocurrency ownership:

8.6%

of respondents.

Most owned cryptocurrency:

Bitcoin (43.5%)



The survey revealed that cryptocurrency awareness stood at 88.1%, with the sampled respondents demonstrating high knowledge of cryptocurrency. Notably, a higher proportion of males exhibited a heightened awareness level (51.6%) compared to females (36.4%).

Among the crypto-aware respondents, a significant majority possessed tertiary education (46.1%), whereas those with no formal education (0.3%) or primary/elementary schooling (1.5%) showed limited cryptocurrency awareness. The study highlighted that 55.5% of respondents were more familiar with Bitcoin compared to other available cryptocurrencies in the market. Social media platforms such as WhatsApp, Instagram, Twitter, LinkedIn, and YouTube served as prevalent sources of cryptocurrency information (42.9%) for respondents, a trend likely attributable to the widespread use of smartphones with internet access. The ubiquity of cryptocurrency-related information on the internet could also account for this trend. Moreover, the survey indicated that 29% of respondents initially learned about cryptocurrency through informal conversations with non-experts, such as friends, family, and colleagues.

Despite the considerable cryptocurrency awareness among respondents, only 8.5% claimed ownership of cryptocurrencies during the time of the survey. Additionally, 12.4% had previously held cryptocurrencies but no longer possessed them at the time of the survey, citing various reasons. Among crypto-aware individuals, 79.0% had never owned cryptocurrencies. Interestingly, more males (6.7%) owned cryptocurrencies compared to their female (3%) counterparts, indicating that males were twice as likely to own cryptocurrencies than females among the respondents. Furthermore, 14.4% of respondents with tertiary education were cryptocurrency owners, while 11.3% of cryptocurrency owners were aged between 25 and 34 years old.

Of those who owned and previously owned cryptocurrencies, 10.7% earned incomes below E10,000.00, revealing that cryptocurrency consumers were predominantly low-income earners, driven by the aspiration for quick financial gains. In contrast, other markets often see greater engagement with cryptocurrency among wealthier consumers. While income's role isn't universal, certain trends are observed in countries like Australia, the UK, Argentina, and Brazil, where engagement correlates with income or socio-economic status. Additionally, the study noted that 43.5% of respondents owned Bitcoin, and 10.9% owned Ethereum. Other cryptocurrencies, including Shiba Inu, Berry, Weownomy (WEOWNS), Dascoin, Litecoin, and Tron (TRX), were owned by 11% of respondents. The internet significantly influenced investment decisions made by cryptocurrency holders, with online videos (32.9%), such as those on YouTube, being the primary source of information, followed closely by online articles (29.7%). Financial advisors were consulted by only 5.1% of respondents before investing in cryptocurrency.

d. Understanding of Cryptocurrencies

"The survey revealed a lack of understanding of cryptocurrency, with 48.4% of participants having limited comprehension"

The survey on cryptocurrency in Eswatini has unveiled notably low levels of comprehension regarding cryptocurrency, with 48.4% of participants indicating a limited understanding. Participants displayed diverse expectations concerning the future value of cryptocurrency: 48.7% foresaw an increase, while 8.6% believed in a decrease. Cryptocurrency exchange platforms, including LUNO, Altcoin Trader, Dashtrader, Timetrade, Okex, Coinbase, StashCentral, and Binance, constituted the prevailing means through which respondents acquired cryptocurrency. The predominant motives for investing in cryptocurrency were the fear of missing out (62%) and the pursuit of quick financial gains (59%). Those not possessing cryptocurrency attributed their lack of ownership to perceived high risk (55%) and insufficient knowledge (50%). These findings underscore that while cryptocurrency garners traction, there remains substantial uncertainty regarding secure and lucrative trading practices.

e. Future Intentions to Own Cryptocurrency

The study's findings underline a profound interest in cryptocurrency among respondents, despite the prevailing uncertain climate. Specifically, 49.4% of participants expressed an intention to possess cryptocurrencies in the future, a majority of whom were young males engaged in full-time employment, with an income of less than E10,000.00. The potential to legitimise the nascent marketplace and augment the value of digital currency underscores the possibility of introducing a form of cryptocurrency regulation, thereby fostering enhanced acceptance of crypto within Eswatini.

Interest and Future Intentions:



49.4% of respondents expressed an intention to hold cryptocurrencies in the future.

Income Level:

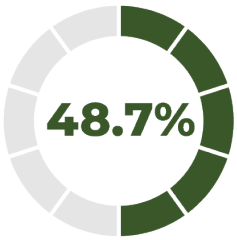


The majority of individuals interested in cryptocurrencies have an income of less than

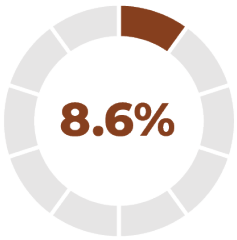
E10,000.00

48.4%
of participants have low understanding.

Future Value Expectations:



predict an increase in value.



believe it will decrease in value.

f. Value of Cryptocurrencies Owned

Results from the survey revealed that 63.6% of respondents' cryptocurrencies held a value of less than E10,000.00, while 28.0% fell within the range of E10,001.00 and E50,000.00. The findings further indicated that males were more inclined to possess cryptocurrencies of higher value compared to females. Moreover, the majority of survey participants utilised personal savings or monthly income for acquiring cryptocurrencies, with only a minority resorting to loans or liquidating assets to invest in digital assets. A small subset of respondents even employed pension or retirement funds for cryptocurrency purchases.

"The findings also revealed that males were more likely to hold cryptocurrencies and of higher value compared to females."

Data sourced from the CBE – as reported by two (2) authorised foreign exchange dealers — unveiled insights into cryptocurrency transactions conducted within the country through the year 2022. The bulk of these transactions entailed the outward flow of funds from Eswatini to South African-based cryptocurrency exchanges, tallying up to E21,261,647.54The aggregate value of outflowing funds exceeded that of incoming funds. By the close of 2022, the cumulative value of funds traded by cryptocurrency owners within Eswatini reached E22,283,664.13. These findings illuminate the extent of cryptocurrency activities within the country during the specified period.

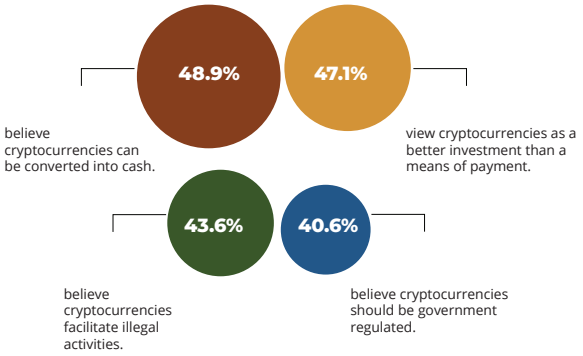


g. Consumer Behaviour, Attitudes, and Perceptions towards Cryptocurrency

The survey conducted on cryptocurrency in Eswatini unveiled a blend of financial attitudes and behaviours. Respondents demonstrated a readiness to undertake risks and displayed a predilection for ethical enterprises. Simultaneously, a significant segment expressed dissatisfaction with their present financial circumstances. Regarding market conduct and financial principles, the majority of participants concurred that an investment promising high returns would likely entail substantial risk. Additionally, it was widely agreed that heightened inflation results in an augmented cost of living. Notably, a considerable percentage disagreed with the notion that investing in global markets carries more risk than investing in national markets.

"Overall, these findings suggest that cryptocurrency participants in Eswatini were aware of financial risks, but may be uncertain about the effectiveness of strategies to mitigate these risks."

Beliefs about Cryptocurrencies:



Awareness of Security Risks:

Most respondents are aware of security risks in cryptocurrencies.

Many have taken measures to protect against fraud and theft.



Overall, these findings imply that participants in Eswatini's cryptocurrency landscape possess an awareness of financial risks, yet there might exist uncertainty regarding the efficacy of strategies to mitigate these risks. The results reveal that 48.9% of survey respondents held the belief that cryptocurrencies could be converted into cash, while 47.1% considered them as a more favourable investment compared to a medium of payment. Approximately 44 per cent (43.6%) of respondents expressed the opinion that cryptocurrencies could facilitate illicit activities, and 40.6% opined that the Government should regulate cryptocurrencies.

A substantial majority of respondents exhibited awareness of the security risks linked to cryptocurrencies and had undertaken precautionary measures to safeguard against fraud and theft. Nonetheless, there existed a cohort lacking in-depth knowledge on the subject, viewing it negatively and often associating it with online scams. These findings underscore the necessity for a broader public education campaign regarding the potential and associated risks of cryptocurrencies. Such efforts are pivotal to cultivating a conducive environment for capital investment and economic growth.

h. Risk Appetite

The survey brought to light that more males displayed a proclivity to embrace the risk associated with cryptocurrency investment, in contrast to their female counterparts. The findings further underscore that respondents exhibited a willingness to leverage market fluctuations by procuring additional cryptocurrencies. Nevertheless, a subset of cryptocurrency holders adopted a more cautious stance, with a predisposition to either liquidate or expend all of their cryptocurrencies, or divest a portion within the upcoming 12 months. On the whole, the survey implies that participants in Eswatini's cryptocurrency arena maintain a discernible level of risk tolerance and optimism.

i. Initial Coin Offerings (ICOs)

"The survey revealed that overall awareness of Initial Coin Offerings (ICOs) was relatively low, with 91% of respondents never having heard of them."

The overall awareness concerning ICOs proved to be relatively modest, as 91% of respondents had never encountered them. Among the 9% acquainted with ICOs, the bulk (74.8%) had never engaged in ICO investments, while merely 25.2% had done so. The results also evidenced that males possessed a higher awareness level pertaining to ICOs and cryptocurrencies in comparison to females. Comprehending these demographic patterns can assist in targeted marketing, educational endeavours, and supportive initiatives aimed at ICO participants. Additionally, the findings imply a notable interest in future ICO investments, yet concurrently highlight an element of uncertainty among respondents. This underscores the requirement for increased education and awareness to bolster investor confidence. While respondents predominantly financed their ICOs through personal income or savings, certain individuals reported positive returns on their investments. However, it is essential to acknowledge the possibility of ICO investors encountering a decline in investment value below the initial cost. This is a facet investors should duly consider as they explore ICO investments.

j. Regulatory Risks Identified from Cryptocurrency Activities in Eswatini

The study meticulously assessed the prevalence of regulatory risks inherent to Eswatini's populace partaking in the cryptocurrency market. Three pivotal risks emerged: the absence of consumer protection, the unauthorised provision of financial services, and money laundering. Survey results starkly highlighted the susceptibility to consumer protection risks, with a noteworthy percentage of respondents falling victim to cryptocurrency-associated scams. Insufficient comprehension of cryptocurrencies, combined with the allure of swift monetary gains, renders consumers susceptible to fraudulent machinations. The study also cast a spotlight on the issue of unauthorised provision of financial services, suggesting that certain individuals may be engaging in investment activities on behalf of others without adhering to regulatory stipulations. However, the risk of money laundering through cryptocurrencies appears comparatively subdued due to Know Your Customer (KYC) procedures enacted by cryptocurrency exchanges, along with the prevalence of fiat-cryptocurrency transactions via the banking system.

k. Financial Service Providers

The study meticulously examined the adoption of cryptocurrencies among Financial Service Providers (FSPs) within the country. The findings reveal that a substantial portion of the surveyed FSPs have yet to venture into cryptocurrencies as an investment option. Among the 34 FSPs surveyed, a mere two (2) investment managers held cryptocurrencies within their balance sheets. Notably, these holdings encompassed Bitcoin, Ethereum, and USD Coin. These investment managers regarded cryptocurrencies as a strategic means of diversification and recognised significant potential within their future trajectories. Despite the prevailing cautious stance among most FSPs regarding cryptocurrencies, a burgeoning interest is discernible among clients in investing in this digital asset class. Six (6) companies reported instances of customer demand for cryptocurrency investments, comprising investment managers, a bank, an insurance company, and a microfinance organisation.

Three (3) FSPs articulated their intent to delve into cryptocurrencies in the future, with one (1) investment manager already delving into exploratory research in this domain. Reasons advanced by certain FSPs for their existing lack of interest in cryptocurrency encompassed limited knowledge, apprehensions concerning volatility and risk, and the absence of regulatory frameworks. While cryptocurrency adoption among FSPs remains modest, the emergence of client demand serves as a potential harbinger of a paradigm shift towards embracing this investment avenue in forthcoming times.

"While the majority of surveyed FSPs have yet to venture into cryptocurrencies, growing client interest suggests a possible future shift in this investment landscape."

Some
institutions are researching about crypto, while others have started experimenting with the asset class.

2 out of 34
FSPs with cryptocurrency in their balance sheet.

Future Intentions

Investment companies exploring the asset class.

1 investment manager is already conducting exploratory research in this domain.



IV. Key Insights

There was a low level of understanding of cryptocurrencies among respondents.

The findings indicate that males were more likely to own cryptocurrencies than females, with those aged 25-34 in full-time work and having a lower monthly income being the most prevalent owners.

Social media platforms were a key source of information for cryptocurrency users, while the fear of missing out and the need to make quick money were the main motivations for owning cryptocurrencies.

Bitcoin was the most owned cryptocurrency by the study participants.

ICO investment was shown to be limited, with those who participated investing in smaller amounts.

Demographic factors and psychological/social factors were found to have a significant impact on investment decisions.

There was low uptake of cryptocurrencies amongst the surveyed FSPs, with most waiting on regulations to make an entrance into the market.

The data also revealed that the majority of individuals were wary of the risks posed by cryptocurrencies, with half expressing an unwillingness to buy them.

Policymakers should consider investing in awareness campaigns and blockchain education to gain comprehensive understanding of how to best leverage the cryptocurrency sector in Eswatini's digital economy.

V. Recommendations

The research findings derived from the survey underscore that, despite the relative novelty of cryptocurrencies within Eswatini, respondents exhibit a receptive attitude towards investment and possess the requisite understanding to navigate associated risks. Consequently, the Government should create an enabling policy environment for cryptocurrencies in the country that will ensure the safe provision of cryptocurrency services and protect consumers and uphold financial stability and integrity. The formulation of supportive policies aligning with global standards is essential to effectively counter money laundering, fraud, and other illicit activities. Furthermore, intensified research and development initiatives are warranted to comprehend the socio-economic implications of cryptocurrencies and to foster innovative solutions within this realm.

A. Government

The Government of Eswatini holds the capacity to establish a harmonious and propitious milieu for the evolution of the cryptocurrency sector by:



Offering legal lucidity to businesses and investors through the delineation of regulatory scope, licensing prerequisites, and compliance parameters. The Money Laundering and Financing of Terrorism (Prevention) Act (as amended) designates virtual asset service providers as accountable entities, encompassing virtual currency exchanges that extend exchange or custodial services for cryptocurrencies, as well as the entities issuing cryptocurrencies, irrespective of whether these cryptocurrencies are tethered to the value of reserve assets, cryptocurrencies, fiat money, or exchange-traded commodities.



Creating an environment that fosters innovation in the cryptocurrency space. Explore and leverage the underlying technology and business models of cryptocurrencies to enhance the financial sector.



Allocating adequate resources and expertise to law enforcement agencies, the financial intelligence unit, and regulatory bodies to strengthen their capabilities.



Empowering individuals to make informed decisions and protect themselves from scams and fraudulent schemes. This could be done via public education campaigns.



Monitoring the development of the local cryptocurrency space to inform future policy development.

B. Regulators (FSRA and CBE)

To foster responsible growth and consumer protection, the FSRA and the CBE should:



- Promote the adoption of blockchain technologies by local businesses to stimulate innovation and bolster economic growth.
- Formulate and enact unambiguous and consistent regulations and legislation pertaining to the utilisation of cryptocurrencies.
- Foster legitimate engagement in cryptocurrencies and consumer protection via legal avenues, regulatory entities should contemplate the introduction of a licensing or registration framework for cryptocurrency service providers. This would necessitate providers to satisfy predefined criteria and conform to specific guidelines, thereby substantiating their authenticity and accountability to consumers.
- Create awareness and education about cryptocurrency through public information campaigns.
- Educate and inform potential investors of the risks associated with investing in cryptocurrencies.

C. Financial Service Providers (FSPs)

To embrace innovation and offer relevant products and services in the cryptocurrency space, FSPs should:

- Invest in training and developing employees to understand and leverage the potential of cryptocurrency and blockchain technology.
- Prioritise innovation and explore the underlying technologies and business models of cryptocurrencies.
- Allocate resources to research and development with the aim of pinpointing domains where blockchain technology and other pioneering solutions can be utilised to enhance products and services. Through this approach, FSPs can augment value for their clientele and maintain competitiveness within an ever-evolving digital landscape.

D. Consumers

To minimise risks and make informed decisions, consumers should:

- Conduct thorough research on different cryptocurrencies before investing and understand their risk exposure.
- Be cautious of scams and fraudulent schemes. They must avoid investments that promise guaranteed returns or sound too good to be true.
- Consider seeking advice from a qualified financial advisor with knowledge of cryptocurrencies if uncertain about entering the market or need guidance.

1. INTRODUCTION

The world of finance is constantly evolving due to the influence of financial technology (FinTech), which introduces new trends in product offerings, financial service delivery, and distribution channels. FinTech encompasses emerging technologies that enable businesses to provide financial services faster and with enhanced security. One significant example of FinTech is cryptocurrency, which has experienced a remarkable transformation within a short span of time. **According to Deloitte (2022), approximately 220 million people worldwide used cryptocurrencies in 2022. This growing adoption has led to notable changes in the digital currency ecosystem, demonstrating signs of maturity driven by increased utility and accessibility.**

Cryptocurrency is a form of a virtual asset that uses blockchain or distributed ledger technology (DLT) to facilitate secure transactions (Polaris Market Research, 2022). It operates within a decentralised network based on blockchain technology, not subject to control by any central authority or Government (IMARC Group, 2022). Virtual assets (crypto-assets) refer to any digital representation of value that can be digitally traded, transferred or used for payment. It does not include digital representation of fiat currencies (FATF, 2023).

Cryptocurrency is mainly acquired through Cryptocurrency-exchanges, where users can buy it with fiat currency or other cryptocurrencies and use it for online purchases of products or services (IMARC Group, 2022). Additionally, it operates as a peer-to-peer system, enabling users to send and receive payments globally without relying on traditional banks for verification (Allied Market Research, 2021).

The COVID-19 pandemic in 2020 brought about significant transformations, prompting companies to accelerate digitalisation, and customers to embrace digital forms of money, leading to a recent surge in the Cryptocurrency industry (Deloitte, 2022). **Cryptocurrencies have attracted the attention of policymakers and the general public due to their rapid growth and volatility (Polaris Market Research, 2022).** Banks worldwide have also started investing in cryptocurrency platforms and launching their own blockchain-based systems, enabling Business-to-Business (B2B) crypto payments (Polaris Market Research, 2022). Major players in the market include Bitcoin, Ethereum, Tether, Ripple (XRP), and BNB.

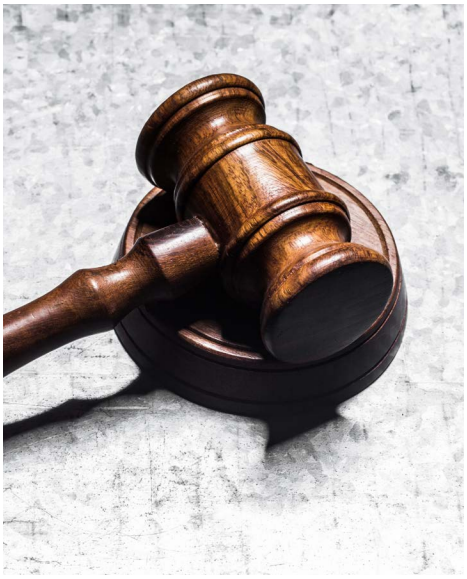
Regarding market capitalisation, the top 10 cryptocurrencies account for 86.3% of the total crypto-asset market capitalisation. **As of July 2023, the cryptocurrency market capitalisation reached US$1.210 trillion, with Bitcoin accounting for 48.5%, Ethereum 19.1%, Tether 6.9%, XRP 3.1%, BNB 3.2%, USD Coin 2.3%, Solana 0.9%, Cardano 0.9%, Dogecoin 0.8%, Polygon 0.6%, and others 13.7% (CoinMarketCap, 2023).** According to Forbes Advisor (2023), the total market capitalisation of the global cryptocurrency market peaked at over $2.9 trillion in November 2021 but experienced a substantial decline during

"Cryptocurrency is mainly acquired through Cryptocurrency exchanges, where users can buy it with fiat currency or other cryptocurrencies and use it for online purchases of products or services (IMARC Group, 2022)."



the crypto winter of 2022—a prolonged period of pricing weakness in the cryptocurrency market. The growth of Bitcoin is expected to be curtailed by the absence of regulations and a unified standard for exchanging digital currency (Grand View Research, 2021).

> "The risks to market integrity in the crypto industry highlight the need for rapid and comprehensive global and national regulatory policies and supervisory frameworks to ensure consumer protection (PwC, 2022)."



The International Monetary Fund (IMF) raises concerns about the collapse of the world's largest crypto exchange, FTX Group, in 2022, and other crypto-related insolvencies, including the decline in Bitcoin and Ethereum prices, in this highly volatile and decentralised system (IMF, 2022). These concerns have prompted policymakers to regulate the sector, as demonstrated by various African countries, including Zimbabwe, Lesotho, Ethiopia, and Tanzania, implementing restrictions on cryptocurrencies. The risks to market integrity in the cryptocurrency industry highlight the need for rapid and comprehensive global and national regulatory policies and supervisory frameworks to ensure consumer protection (PwC, 2022). **In Eswatini, the lack of clear regulations on cryptocurrency use poses risks to consumers,** as there is no protection or legal recourse available in case of financial loss from the use of Bitcoin or any other cryptocurrency (Backer Mckenzie, 2018).

Just like any financial product or service accessible to the public, effective financial education and approaches to safeguard financial consumers are essential in handling associated risks. These measures not only foster the financial well-being and empowerment of individuals but also uphold the broader stability of the financial system. Nevertheless, engaging with digital financial products such as cryptocurrencies entails a certain degree of risk, akin to any other financial transaction. Cryptocurrencies function as digital currencies and remain vulnerable to price fluctuations arising from speculation, reduced liquidity, restricted acceptance, and volatile market conditions.

Surveys on cryptocurrency consistently reveal a burgeoning interest in digital assets. Cryptocurrency is swiftly transitioning from a niche asset class to a mainstream market, becoming more accessible to a broader spectrum of users. The amplified intrigue surrounding cryptocurrencies is propelled by the aspirations of numerous individuals aiming to amass wealth and partake in the future of the financial sector (Visa Inc/Material Company, 2021). Globally, blockchain technology has ushered in revolutionary transformations across various service sectors, encompassing finance and banking. In mid-2021, cryptocurrency transactions were estimated at US$20 billion monthly, with Kenya, South Africa, and Nigeria leading the Sub-Saharan African region in user adoption (IMF, 2022).

Within Eswatini, anecdotal indications propose that a modest fraction of consumers have ventured into purchasing cryptocurrencies, participating in the digital currency market at varying degrees. **While the global cryptocurrency market exhibits expansiveness and growth, its dimensions within Eswatini remain unknown, and the nature of transactions undertaken is yet to be documented.** Eswatini acknowledges the potential of cryptocurrencies and their potential impact on the economy. Employing consumer surveys to gauge cryptocurrency awareness and usage within countries can facilitate the identification of usage trends, delineate diverse fields and contexts of cryptocurrency adoption, and assess the necessity of regulation. This context prompted the Eswatini Economic Policy Analysis and Research Centre (ESEPARC) to conduct the nation's inaugural cryptocurrency survey, aimed at enhancing comprehension of consumer awareness levels, engagement with cryptocurrency, market opportunities, and the potential role of regulatory frameworks. Given that the growth of cryptocurrencies in Eswatini is nascent, the advent of cryptocurrency acceptance and regulation in the country is likely to induce a concomitant surge in awareness and usage.

Hence, the primary objective of the cryptocurrency survey in Eswatini was to gauge the extent of the cryptocurrency market within the country, and to discern the factors driving public perceptions, thus informing policy determinations. The survey outcomes, predominantly, will heighten awareness about cryptocurrencies and generate pertinent insights for stakeholders in the sector. Leveraging consumer surveys to gauge cryptocurrency awareness and adoption within countries facilitates the identification of usage trends, while also delineating various fields and contexts conducive to cryptocurrency adoption. The survey data can serve as a foundation for financial service providers, informing the development of novel financial products and investments, and capitalising on the advantages presented by these innovations.

1.1. Objectives of the Survey

The objectives of the survey were to:

I. Understand attitudes towards cryptocurrency and motivations for holding cryptocurrencies.

II. Understand how EmaSwati purchase and engage with cryptocurrency and learn from their experiences with cryptocurrency.

III. Estimate the size of the cryptocurrency market in Eswatini.

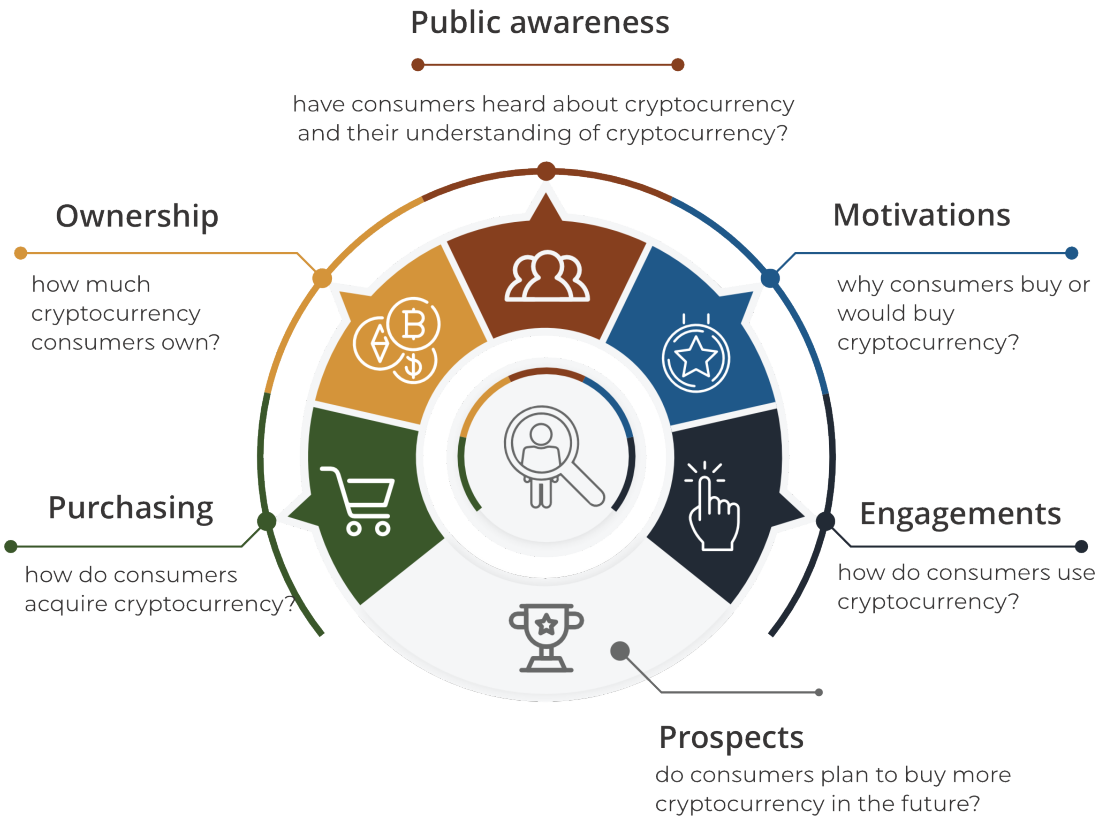
IV. Evaluate the prevalence of regulatory risks inherent in Eswatini's population participating in the cryptocurrency market.

2. METHODOLOGY

2.1. Approach to Conducting the Baseline - Cryptocurrency Survey

2.1.1. Individual's survey

To gain a comprehensive understanding of the cryptocurrency market dynamics in Eswatini, ESEPARC collected data from the general public in relation to the following:



The survey adhered to the framework established by the Organisation for Economic Co-operation and Development (OECD) for conducting surveys aimed at gathering insights about cryptocurrencies. The survey questionnaire was administered through face-to-face interviews with eligible respondents, and it was also made available online via a link for individuals to complete. This OECD framework for conducting the survey has also been embraced to amass information regarding cryptocurrency markets in regions such as North America, the United Kingdom, and Asia.

2.1.2. Financial Service Providers (FSPs) Survey

To complement the Survey for individuals, ESEPARC conducted the FSPs Survey to find out the attitude and use of cryptocurrencies by FSPs in Eswatini such as banks, asset managers, pension funds, insurers, and others. The goal of the survey was to gauge the demand and supply for cryptocurrency from financial intermediaries. The questionnaire had the following components:



Ownership: is the organisation exploring/researching cryptocurrency as an investment option? Does the organisation have cryptocurrency in its balance sheet? Which cryptocurrency does the organisation hold?



Motivation: what prompted the organisation to invest in cryptocurrency? Why are they considering investing in cryptocurrency? Why are they not considering investing in cryptocurrency? Are you seeing a positive return on your cryptocurrency investment?



Future plans: does your organisation intend on growing this investment in the future? Does your organisation intend on investing in cryptocurrencies as a corporate asset in the future?



Interest from the companies' clients: has the organisation received interest from your clients/customers to include cryptocurrency investments into your product offerings?

2.2. Data Collection Methods

2.2.1. Desktop Review

The study commenced with a comprehensive desktop review of academic literature and official reports pertaining to cryptocurrency markets. This initial phase aimed to furnish contextual information regarding the technology's evolution and regulatory endeavours undertaken by countries, encompassing both the developing and developed realms. The desktop review afforded a panoramic view of the policy and legal framework, the institutional landscape, the spectrum of activities within the cryptocurrency domain, and the envisaged potential and future applications of cryptocurrencies globally, including within Eswatini. The review underscored significant actors within the sector and extracted insights from previous pivotal initiatives in the field. Furthermore, it illustrated instances of how diverse countries are addressing the challenges posed by cryptocurrencies, juxtaposing accomplishments, shortcomings, and exemplary practices.

By scrutinising the diverse stances adopted by different nations in the implementation and oversight of the cryptocurrency realm, the review serves as a foundational reference for dissecting the outcomes of the cryptocurrency market within Eswatini. This analytical exercise facilitates the identification of pivotal domains warranting policy intervention or offering informative guidance for decision-making processes. In essence, the findings gleaned from the desktop review establish a benchmark against which Eswatini's prevailing circumstances can be gauged. It pinpoints gaps, vulnerabilities, and prospects inherent within the local system, thereby contributing to the formulation of ingenious, well-grounded strategies and solutions.

2.2.2. Cryptocurrency Survey (Individuals & Select Group of Financial Service Providers)

A nationwide cryptocurrency survey was conducted with individuals to assess their familiarity with cryptocurrencies and their level of engagement within the cryptocurrency market. Precisely, the survey was implemented through online platforms and in-person interviews, concentrating on individuals aged 18 years and above. The objective was to elicit their viewpoints, convictions, behaviours, and preferences regarding cryptocurrencies, aiming to ascertain the extent and potential of the cryptocurrency industry within Eswatini. The survey encompassed both individuals who were actively participating in cryptocurrency activities and those who were not. Being the pioneering endeavour of

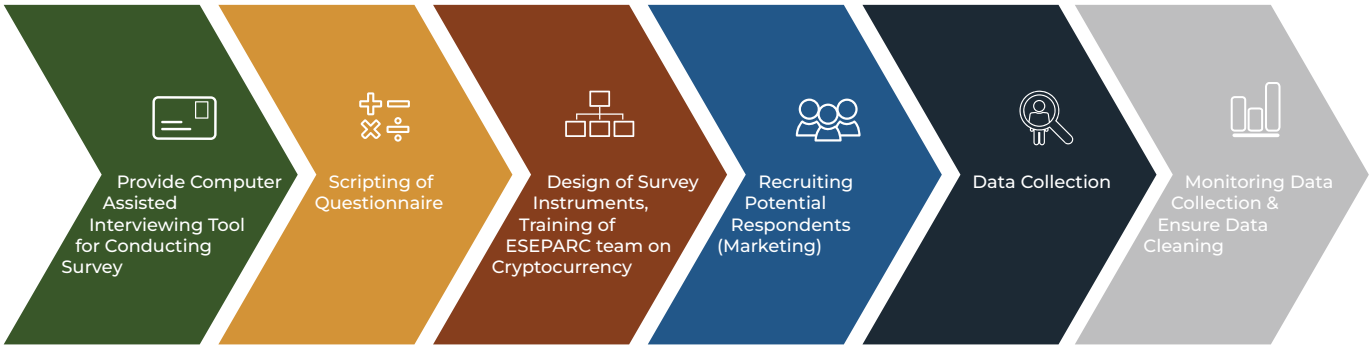
its kind within Eswatini, this cryptocurrency survey furnishes fundamental insights into the dimensions, driving and restraining factors, and the overall dynamics of the cryptocurrency market in the country.

The survey functions as a pivotal benchmark for monitoring the growth of the market and shaping the formulation of evidence-driven policies for financial consumer protection and education.

The survey is centred on capturing the comprehensive perspectives and attitudes that EmaSwati hold towards various cryptocurrencies, while also pinpointing the ones they actively utilise. Demographic information has been gathered as well, with the aim of discerning and comprehending the particular segment of the Eswatini adult population that is more likely to engage with cryptocurrencies, alongside the underlying motivations for their involvement.

Furthermore, a concise industry survey was carried out among FSPs within the country. This facet sought to illuminate their role and extent of engagement in the cryptocurrency realm. Additionally, it aimed to dissect their level of involvement across aspects such as investment, impetus, strategic emphasis, and awareness. The questionnaire, accessible through an online link, was dispatched via email, and hard copies were distributed upon request to 42 FSPs in the country. Out of the 42, 34 FSPs participated in the survey. Within these entities, pertinent personnel – such as the Executive Director or appointed representatives (e.g. financial analysts, strategy managers, etc.) – completed the survey questionnaire. A succinct representation of the survey's execution process is illustrated in Figure 2.2.1.

Figure 2.2.1: Cryptocurrency Survey Implementation Process



Source: ESEPARC, 2023

To produce nationally representative statistics, the Central Statistics Office (CSO) employed a sample size of 3,456 respondents from the Eswatini Household Income and Expenditure Survey 2016/2017; consequently, the cryptocurrency survey aimed to reach 3,500 respondents. For the individual survey, convenience sampling was utilised, based on the willingness of participants to engage in the online survey and respondent recruitment initiatives orchestrated by ESEPARC. The survey's scope encompassed individuals in Eswatini aged 18 and above, both involved and not involved in cryptocurrency consumption. To ensure proportional representation, the survey adhered to the distribution of respondents across the distinct regions of Eswatini, as outlined in the 2017 Population and Housing Census: 32.6% from Manzini, 29.3% from Hhohho, 19.4% from Lubombo, and 18.7% from the Shiselweni region. Figure 2.2.2 provides a map illustrating the geographical dispersion of the survey participants. Data collection occurred in all the economically active cities and towns of the nation, including Mbabane, Ezulwini, Matsapha, Manzini, Mankayane, Pigg's Peak, Siphofaneni, Big Bend, Matata, Siteki, Simunye, Buhleni, Nhlangano, and Hlatsi.

Figure 2.2.2: Data Collection Map



"The survey population includes all individuals in Eswatini involved and not involved in the consumption of cryptocurrencies from 18 years old and above."

Source: ESEPARC, 2023

3. AN OVERVIEW OF THE CRYPTOCURRENCY MARKET

3.1. Introduction

Cryptocurrency, known for its high volatility, experienced a turbulent period in 2022 (Forbes Advisor, 2023). The major cause of the market downturn was the collapse of FTX, one of the largest global cryptocurrency exchanges. FTX's bankruptcy and fallout with Binance triggered significant sell-offs and reduced liquidity in the cryptocurrency market (Forbes Advisor, 2023). However, in 2023, most cryptocurrencies started recovering, although their prices remained significantly lower than their peak levels in 2021 (Forbes Advisor, 2023). At the time of writing this report, leading cryptocurrencies like Bitcoin and Ethereum were still performing well, trading at US$29,862.41 and US$1,885.68, respectively (CoinMarketCap, 2023).

The growth of the cryptocurrency market is driven by factors such as the need for operational efficiency and transparency in financial payment systems, increased demand for remittances in developing countries, improved data security, and increased market capitalisation (Allied Market Research, 2021). Cryptocurrencies, often integrated with blockchain technology, offer decentralised and efficient transactions, making them attractive to traditional FSPs like banks and asset management companies as investment assets. This trend is fuelled by the growing legitimacy of cryptocurrencies, potential for high returns, and the desire to diversify investment portfolios (Allied Market Research, 2021). Countries like Iran, Venezuela, and El Salvador adopting cryptocurrencies for value storage and exchange also contribute to the market's growth (Polaris Market Research, 2022).

"The growth of the cryptocurrency market is driven by factors such as the need for operational efficiency and transparency in financial payment systems, increased demand for remittances in developing countries, improved data security, and increased market capitalisation (Allied Market Research, 2021). "



The adoption and decentralised nature of cryptocurrencies present distinctive challenges for global financial authorities, regulators, and tax authorities. However, they also provide opportunities to harness the internet for enhanced financial inclusion for both individuals and micro, small, and medium-sized enterprises (MSMEs) (WEF, 2021). Cryptocurrencies and their underlying blockchains introduce a fresh paradigm for secure data and value transmission, storage, and accessibility, necessitating judicious regulation that factors in their specific attributes and applications (WEF, 2021).

Risks linked to cryptocurrencies encompass price volatility, the absence of depositor protection, the lack of payment safeguards due to irreversible transactions, the challenge of establishing accountability due to decentralisation, and privacy concerns arising from the pseudonymous nature of cryptocurrencies (WEF, 2021). Recent incidents have demonstrated that notwithstanding their decentralised concept, novel centralised intermediaries have assumed a significant role in directing funds and facilitating transactions within the cryptocurrency realm (BIS, 2023). The collapse of FTX has underscored vulnerabilities in the sector, revealing that cryptocurrencies share analogous weaknesses with traditional finance, albeit in an amplified manner (BIS, 2023).

3.2. Structure of the Cryptocurrency Market

Since its inception in 2009 with the creation of Bitcoin, the cryptocurrency market has evolved into a complex and rapidly changing ecosystem. **There are several service providers that play crucial roles in maintaining this system, including Decentralised Finance (DeFi) platforms, cryptocurrency exchanges, and digital wallet applications (UNCTAD, 2022).** DeFi platforms, powered by distributed ledger technology (DLT), enable cryptocurrency lending, trading, and investment without traditional financial intermediaries (BIS, 2021). Cryptocurrency exchanges facilitate the conversion of cryptocurrencies to sovereign currencies, while digital wallets securely store users' private digital currencies. Another significant aspect of the cryptocurrency ecosystem is stablecoins, a class of cryptocurrencies designed to maintain a stable value relative to a sovereign currency or a basket of assets by holding financial assets as collateral (UNCTAD, 2022). Notable stablecoins include Tether (USDT), USD Coin (USDC), Binance USD (BUSD), and Dai (DAI).

The cryptocurrency market faces challenges due to its volatility, which hinders its adoption by risk-averse investors. The fluctuations in value are often attributed to bulk buying and selling of cryptocurrencies by a limited number of holders on trading platforms and exchanges (Technavio, 2023). Additionally, the absence of transaction charges, position charges, trade posting fees, and regulations on trading platforms further contribute to price volatility. This lack of regulation allows some individuals with significant holdings of cryptocurrencies to manipulate prices for their own profit without making actual investments (Technavio, 2023).

Cryptocurrencies serve various purposes based on their types. At a fundamental level, they can be used for value transfers or as payment for goods and services (CoinTelegraph, 2023). Trading and investing are common use cases, and stablecoins offer a way to stabilise the value of cryptocurrencies by pegging them to traditional currencies like the US dollar. Businesses can accept cryptocurrencies directly or through payment processors, and some services even allow automatic conversion of paid cryptocurrencies into cash. People can also participate in mining cryptocurrencies, whereby computer processing power is used to earn coins by solving complex mathematical problems. Borrowing and lending of crypto-assets through DeFi platforms are additional use cases facilitated by DLT (CoinTelegraph, 2023).

Bitcoin, Ethereum, and Tether

The three (3) largest cryptocurrencies in the world by market capitalisation are Bitcoin, Ethereum, and Tether, in that order. Bitcoin is a decentralised cryptocurrency that is designed to operate without the need for central bank or government intervention. **Bitcoin is by far the most popular and widely used cryptocurrency in the world. It is the first and most well-known cryptocurrency, and it is the basis for most alternative coins.** Its decentralised nature provides users with a high degree of autonomy and control over their funds. Additionally, its high degree of adoption makes it the most trusted and attractive

to investors. Bitcoin functions as a unit of account and medium of exchange. In Bitcoin, decentralised consensus mechanisms encourage some miners to secure the system for financial gain. Bitcoin relies on a proof of work (PoW) consensus mechanism that rewards miners who possess greater computational resources and energy demands (CRS, 2023).

Ethereum is a blockchain-based platform that allows developers to create applications and contracts using its own cryptocurrency, ether. Ethereum has arguably superior monetary properties when compared to Bitcoin, gold, and fiat money (Feria, 2021). Unlike Bitcoin, Ethereum uses proof of stake (PoS), a less energy-intensive consensus mechanism than PoW. In PoS, computational effort of PoW is replaced with collateral: validators lock or "stake" at least 32 Ether to enter a pool to be given a chance to validate the next block (CRS, 2023). The network may seize collateral for malicious activity or other offences. Ethereum's network "utility" is hosting its own digital economy, and it is using ether as its primary monetary asset. This means that ether's value is not restricted by supply-side scarcity. It is driven by its demand as collateral and a medium of exchange, i.e. DeFi, ICOs, and Non-Fungible Tokens (NFTs) (Feria, 2021).

Tether is a cryptocurrency token that is pegged to the value of a stable asset such as the US dollar (USD), Euro (EUR), or other traditional fiat currencies. It is an important tool for investors as it provides a way to bridge the gap between traditional currencies and the more volatile cryptocurrencies. In essence, Tether acts as a stable store of value and a safe haven for investors looking to protect their capital against the uncertainty of cryptocurrency markets. It is also used as a means of transferring funds between different exchanges and wallets, particularly across borders.

According to CoinDesk (2023), Bitcoin and many other cryptocurrencies stand out from legacy digital payment methods, such as those run by Visa and PayPal, in that they remove all middlemen from transactions. When using a credit card to pay for a good or service, a financial institution sits between the consumer and the business, with control over the transaction, retaining the authority to stop or pause it and record it in its private ledger. With cryptocurrency, those institutions are cut out of the picture.

Stablecoins

Stablecoins, as defined by the Financial Stability Board (FSB) (2022), belong to a category of cryptocurrencies designed to maintain a stable value relative to a specific currency, typically the US dollar or euro. They offer perceived stability in contrast to the high volatility of unbacked cryptocurrencies.

However, not all stablecoins achieve the same level of price stability due to variations in their pegging mechanisms, the nature of reserve currencies, and their governance structure (FSB, 2022).

The issuance and distribution of stablecoins often involve trading platforms, where they are exchanged for fiat currency. The proceeds from the fiat currency can be used by the issuer to invest in reserves or other assets. It is worth noting that the composition and amount of reserve assets backing stablecoins may vary significantly, and some issuers do not adhere to standard practices regarding reserve composition, potentially impacting risks associated with different stablecoin designs (FSB, 2022).

According to the FSB (2022), stablecoins serve several primary use cases, including acting as a bridge between traditional fiat currencies and more volatile digital currencies, serving as collateral in cryptocurrency derivative transactions, and facilitating trading, lending, and borrowing activities within the DeFi ecosystem.

Initial Coin Offerings (ICOs)

ICOs have emerged as a prominent application of blockchain technology in finance, offering an innovative way for small and medium-sized companies (SMEs) to raise capital (OECD, 2019). ICOs involve issuing digital tokens in exchange for crypto-assets or fiat currencies, providing an alternative financing method to traditional sources like venture capital and angel finance (EPRS, 2021). ICOs are typically associated

with the issuance of tokens linked to tangible assets, either providing access to new applications or representing an investment stake in the application (Paul | Weiss, 2019).

While ICOs may share some terminology with Initial Public Offerings (IPOs), they differ significantly in terms of target companies and the rights attributed to participants. Moreover, ICOs are not a new way of bringing owners into a business. ICOs enable a business to develop a product with an established user base, and the business can use some of the proceeds to build the product (Deloitte, 2017). **IPOs are primarily for established companies with mature business propositions and cash flow generation, while ICOs are more commonly used by start-ups without established operations (OECD, 2019).** IPOs give shareholders ownership rights in the company, rights in the future cash flows of the company (through dividends), and voting rights depending on the type of the shares issued. Rights assigned to token-holders vary between different offerings, but in the majority of cases, ICOs do not confer ownership rights (OECD, 2019).

Decentralised Finance (DeFi)

Decentralised Finance (DeFi) has gained significant traction due to its potential to disrupt traditional financial activities by offering greater inclusivity, transparency, and efficiency. DeFi encompasses various decentralised exchanges, lending platforms, and yield farming protocols, providing new opportunities for investors to participate in a peer-to-peer financial ecosystem (Allied Market Research, 2021). DeFi relies on blockchain and cryptocurrency technologies to democratise finance and replace centralised institutions with direct peer-to-peer relationships, offering a wide range of financial services (Forbes Advisor, 2023).

According to Market Research Future (2023), the DeFi market size was valued at US$14.1 billion in 2022. The DeFi market is projected to grow from US$20.69 billion in 2023 to US$446.43 billion by 2032, exhibiting a compound annual growth rate (CAGR) of 46.8% during the forecast period (2023 – 2032) (Market Research Future, 2023).

3.3. Regulatory Framework for Cryptocurrency Markets

Cryptocurrency markets are rapidly evolving and may pose a threat to global financial stability due to their scale, vulnerabilities, and increasing integration with traditional financial systems (FSB, 2022). However, the international nature and swift evolution of these markets may lead to regulatory gaps and fragmentation (FSB, 2022). To address potential risks promptly, it is crucial to evaluate and implement appropriate policy responses (FSB, 2022). **Currently, regulatory initiatives in the cryptocurrency space primarily focus on Anti-Money Laundering and Counter-Terrorism Financing (AML/CFT) rules and the regulation of cryptocurrencies and cryptocurrency service providers.**

Balancing regulatory clarity and fostering cryptocurrency market maturity is essential, as overly strict regulations may push participants offshore, risking customer safety. Governments and regulatory bodies worldwide are actively working to establish regulatory frameworks for cryptocurrencies, exchanges, and ICOs, leading to an evolving global regulatory landscape.

Some countries encourage innovation with supportive stances, while others adopt stricter measures to combat risks like money laundering and fraud. Market participants seek regulatory clarity to promote mainstream adoption and ensure investor protection (Allied Market Research, 2021).

The Financial Action Task Force (FATF) published updated guidance in October 2021, recommending a risk-based approach to virtual assets (VAs) and virtual asset service providers (VASPs) (FATF, 2021). This guidance aims to assist regulators in developing directives for VA activities and help VASPs understand and fulfil their AML/CFT obligations (PwC, 2022). The guidance includes a travel rule, requiring VASPs to share certain personally identifying information for cryptocurrency transactions over USD/EUR 1,000.00 globally, aiming to combat terrorist financing, money laundering, and support law enforcement (PwC,

Initial Coin Offerings (ICOs)

- ICOs are a crowdfunding method.
- Companies raise funds by issuing digital tokens.
- Tokens are sold to investors for fiat currency or cryptocurrencies.
- Investors can trade these tokens on the open market.





Investor Benefits: 1

- Discounts
- Dividends
- Access to Risky Projects



Company Benefits: 2

- Capital for Cryptocurreny Start-ups
- Development without Traditional Financing



Investor Opportunities: 3

- Portfolio Diversification
- Exposure to Cryptocurrencies

A significant change in the financial sector and increasing acceptance of DeFi to eradicate intermediaries are the key market drivers enhancing market growth. However, challenges related to regulation, consumer protection, and liquidity risks in stablecoins and lending protocols require attention for the sustainable adoption of DeFi (WEF, 2022; FSB, 2023).

Central Bank Digital Currency (CBDC)

There has been an increasing amount of interest from central banks in the development of their own digital currency known as CBDC. This is, in part, due to the growing use of digital currencies in the global economy. Central banks are looking to capitalise on the benefits that cryptocurrencies offer, such as faster and more efficient payment systems, better fraud protection, and improved monetary policy tools. CBDCs are regarded as a safer solution to end-users' evolving payment needs, offering legal certainty, promoting competition, enhancing interoperability, and safeguarding consumer rights (IMF, 2023). **A CBDC design with greater anonymity increases competition with cash and cryptocurrency, while a positive interest rate may increase competition with bank deposits (IMF, 2023).** This competition could potentially drive down the cost of transactions and catalyse innovation. Furthermore, the introduction of CBDC could provide bentral banks with greater control over monetary policy. Such currencies have already been introduced in a few developing countries, such as the Bahamas, and many others are advancing on pilot projects, such as China, or are researching the design of such currencies (UNCTAD, 2022).

2022).**However, the FATF expressed concern that many jurisdictions have not fully implemented its Recommendation 15, which sets global AML/CFT standards for VAs and VASPs (FATF, 2023). This lack of implementation raises serious concerns about the potential misuse of virtual assets by criminals and underscores the need for expedited enforcement.**

Furthermore, in June 2023, the FATF published a targeted update in implementation of the FATF standards on virtual assets and virtual asset services. The report provides an update on country compliance with FATF's Recommendation 15 and its Interpretative Note (R.15/INR.15), including the travel rule, and updates on emerging risks and market developments, including Decentralised Finance (DeFi), Peer-to-Peer transactions (P2P), NFTs, unhosted wallets, and stablecoins (FATF, 2023). **The FATF's report finds that jurisdictions continue to struggle with fundamental requirements such as undertaking a risk assessment, enacting legislation to regulate VASPs, and conducting a supervisory inspection.** Based on 98 FATF mutual evaluation and follow-up reports since the revised R.15/INR.15 was adopted, 75% of jurisdictions are only partially or not compliant with the FATF's requirements (FATF, 2023). In addition, jurisdictions have made insufficient progress on implementing the travel rule, which is a key AML/CFT measure. Of the 151 jurisdictions that responded to FATF's 2023 Survey, more than half still have not taken any steps towards implementing the travel rule.

This is a serious concern, as the risks posed by VAs and VASPs continue to increase, and the lack of regulation creates significant loopholes for criminals to exploit. This demonstrates an urgent need for jurisdictions to accelerate the implementation and enforcement of R.15/INR.15 to mitigate criminal and terrorist misuse of VAs and VASPs (FATF, 2023).

In its proposed framework and **recommendations for the international regulation of cryptocurrency and global stablecoin arrangements,** the FSB identified a number of challenges around the national application of cryptocurrency regulation and supervision: i) existing regulatory powers and reach as well as gaps in the application, including cross-border cooperation; ii) risks related to wallets and custody services, trading, lending, and borrowing activities; and iii) the extensive use of DLT (FSB, 2022; PwC 2022). The FSB is of the view that an effective regulatory framework must ensure that cryptocurrency activities are subject to comprehensive regulation, commensurate with the risks they pose, while harnessing the potential benefits of the technology behind them (FSB, 2022). In broad terms,where cryptocurrency and intermediaries perform an equivalent economic function to the one performed by instruments and intermediaries in the traditional financial system, they should be subject to regulations in line with the principle of "same activity, same risk, same regulation". For national authorities, this means having and using powers, tools and resources to regulate and supervise the growing cryptocurrency and stablecoin market (PwC, 2022).

Countries should cooperate and coordinate with each other, domestically and internationally, to encourage consistency and knowledge-sharing. Cryptocurrency and stablecoin firms, including issuers, service providers, exchanges and wallets, should be subject to comprehensive regulatory requirements (PwC, 2022).

In July 2023, the FSB published high-level recommendations for the regulation, supervision, and oversight of crypto-asset activities and markets. The recommendations set a global regulatory baseline, and some jurisdictions may choose to implement more stringent regulatory measures (FSB, 2023). Their goal is to promote a technology-neutral regulatory, supervisory, and oversight framework that focuses on underlying activities and risks. Although the recommendations do not address all specific categories related to cryptocurrency activities, such as: anti-money laundering/combating the financing of terrorism (AML/CFT); data privacy; cyber security; consumer and investor protection; market integrity; competition policy; taxation; monetary policy; monetary sovereignty; and other macroeconomic concerns.

According to the European Council (2023), MiCA is part of a larger digital finance package aimed at developing a European approach that promotes technological development while also ensuring financial stability and consumer protection (European Council, 2023). In addition to the MiCA proposal, the package includes

a digital finance strategy, a Digital Operational Resilience Act (DORA) that includes crypto-asset service providers, and a proposal on a pilot regime for DLT for wholesale uses.

This package fills a gap in existing EU legislation by ensuring that the current legal framework does not obstruct the use of new digital financial instruments while also ensuring that such new technologies and products fall within the scope of financial regulation and operational risk management arrangements of EU-based firms (European Council, 2023).

3.4. Experience of African Countries

Increasing interest in and application of cryptocurrencies has been observed in the North Africa and Sub-Saharan Africa (SSA) regions, particularly in countries such as Morocco, Egypt, Nigeria, Kenya, and South Africa. Chainanalysis (2022) states that these countries experienced some of the highest rates of cryptocurrency adoption worldwide in 2022, ranking in the top 20 of the global adoption index, except for South Africa (ranked 30th). **Africa contains some of the most well-developed cryptocurrency markets of any region, with deep penetration and integration of cryptocurrency into everyday financial activity for many users (Chainanalysis, 2022).** This is particularly true in Nigeria and Kenya, which ranked 11th and 19th in the Global Crypto Adoption Index 2022 by Chainanalysis.

Various factors drive the adoption of cryptocurrencies in Africa, encompassing a sizeable unbanked population, volatile local currencies, remittance payments, and the quest for new income opportunities through financial innovation.

However, many uncertainties remain regarding cryptocurrency regulations across the region. Around 70% of the region's countries have a neutral or uncertain policy approach, lacking explicit regulations on accepting or rejecting cryptocurrencies (UNDP, 2022).

Countries such as South Africa, Mauritius, and Botswana have taken a positive stance on cryptocurrencies. In 2021, **South Africa's** financial sector regulators published a policy position paper on cryptocurrencies (refered to as "crypto-assets" in the paper) through the Intergovernmental Fintech Working Group (IFWG).

The IFWG paper provides specific recommendations on developing a regulatory framework for cryptocurrencies, including the implementation of the AML/CFT framework, monitoring of cross-border financial flows in respect of crypto-assets and crypto-assets service providers (CASPs), and the application of financial sector laws declaring crypto-assets as a financial product through the provisions of the



The FSB puts forward the following recommendation for countries to consider (FSB, 2023):

1	Regulatory Powers and Tools:	Authorities should have the necessary powers, tools, and resources to effectively regulate and oversee cryptocurrency activities and enforce relevant laws.
2	General Regulatory Framework:	Apply comprehensive and proportionate regulation and oversight to cryptocurrency activities based on their financial stability risk, ensuring consistency in regulation for similar activities.
3	Cross-Border Cooperation:	Foster efficient communication and information sharing among authorities domestically and internationally to support each other in fulfilling their mandates and promote regulatory consistency.
4	Governance:	Cryptocurrency issuers and service providers must have a clear governance framework with defined lines of responsibility and accountability, proportionate to their risk and systemic importance.
5	Risk Management:	Require cryptocurrency service providers to implement effective risk management frameworks that address all material risks associated with their activities.
6	Data Collection and Reporting:	Cryptocurrency issuers and service providers must provide comprehensive and transparent information about their governance, operations, risk profiles, and financial conditions to users and stakeholders.
7	Disclosures:	cryptocurrency issuers and service providers must provide comprehensive and transparent information about their governance, operations, risk profiles, and financial conditions to users and stakeholders.
8	Addressing Financial Stability Risks:	Identify and monitor interconnections and interdependencies within the cryptocurrency ecosystem and the broader financial system, and take measures to address associated financial stability risks.
9	Comprehensive Regulation of Service Providers:	Apply appropriate regulation to cryptocurrency service providers that perform multiple functions, addressing individual function risks and risks arising from the combination of functions.

These recommendations aim to create a well-regulated environment for cryptocurrencies, ensuring investor protection, financial stability, and effective supervision of the market. The FSB will review progress in the implementation of its final recommendations by the end of 2025. The review involves taking stock of the regulatory measures adopted by FSB member jurisdictions and their outcomes, including an analysis of relevant developments in cryptocurrency markets (FSB, 2022). The European Union (EU) has adopted new rules on **markets in crypto-assets (MiCA),** establishing a regulatory framework for crypto-assets, crypto-asset issuers, and crypto-asset service providers. The MiCA regulations aim to protect investors by increasing transparency and establishing a comprehensive framework for issuers and service providers, including AML rules compliance (European Council, 2023). The new rules apply to issuers of utility tokens, asset-backed tokens, and stablecoins. It also covers service providers such as trading avenues and the wallets where crypto-assets are held. This regulatory framework aims to protect investors, preserve financial stability, while allowing innovation and fostering the attractiveness of the crypto-asset sector (European Council, 2023). It also introduces a harmonised regulatory framework in the EU which, given the global nature of cryptocurrency markets, is an improvement compared to the current situation with national legislation in some member states only.

Financial Advisory and Intermediary Services Act 37 of 2002 (the FAIS Act) (IFWG, 2021). In October 2022, South Africa's Financial Services Conduct Authority (FSCA) declared crypto-assets as financial products, and CASPs will be required to apply for licensing and must comply with the requirements of the FAIS Act (FSCA, 2022).

With the ambition of positioning **Mauritius** as Africa's FinTech hub, Mauritius passed the Virtual Asset and Initial Token Offering Services Act (2021) in February 2022. The Act sets out a comprehensive legislative framework to regulate the business activities of VASPs and initial token offerings (ITOs) (FSC, 2022). VASPs can acquire an operational licence from the Financial Services Commission (FSC), while Security Token Offerings (STOs) adhere to a specific framework.

Since the Virtual Assets Act came into effect in February 2022, the **Botswana** Non-Bank Financial Institutions Regulatory Authority (NBFIRA) intensified measures against unregistered cryptocurrency dealers in Botswana (Maramwidze, 2023). In March 2023, the NBFIRA directed an unregistered crypto services provider to cease operations.

Botswana's Virtual Assets Act specifies penalties to be levied against unlicensed operators, which include fines of up to P250,000.00 (which is equivalent to ZAR347,588.75) or imprisonment for a term not exceeding five years or both. The NBFIRA has also warned the public against conducting business with unlicensed VASPs or unlicensed entities operating within the non-bank financial institutions sector (Maramwidze, 2023). The Botswana nation has not recognised cryptocurrencies as legal tender.

In April 2022, the **Central African Republic (CAR)** announced the adoption of Bitcoin as a legal tender and passed a law to govern cryptocurrency-related transactions in the country (UNDP, 2022). However, recent developments in the country have called into question the viability and perhaps even the existence of cryptocurrencies in CAR. In March 2023, a new law was proposed to Parliament and was passed unanimously (Kabré, 2023). Although the new law is not yet publicly available, press releases indicate that in the new law, Bitcoin is no longer considered legal tender but rather a benchmark cryptocurrency (Kabré, 2023). Additionally, the "obligation" to accept cryptocurrencies as a means of payment, which appeared in the repealed law, has been replaced by the "freedom" to accept or not accept cryptocurrencies as a means of payment when they are offered for the purchase or sale of goods or services (Kabré, 2023).

However, some other countries take a hard stance towards cryptocurrencies. In a recent development, Zimbabwe explicitly removed cryptocurrency, digital currency, and CBDC from its FinTech Regulatory Sandbox, designating them as non-eligible products or services (UNDP, 2022). The Bank of **Namibia** has announced a phased approach to include virtual assets and virtual asset service providers under its FinTech Innovations Regulatory Framework. In **Nigeria,** although cryptocurrencies are not recognised as legal tender and banks are prohibited from participating in cryptocurrency transactions, Nigerians actively trade cryptocurrencies through peer-to-peer networks.

Nigeria has emerged as one of the leading countries in terms of cryptocurrency adoption in Africa, with a large number of exchanges and trading platforms based in the country.

In **Kenya,** cryptocurrency is legal with no specific laws or regulations prohibiting its use or possession. However, it is not recognised as legal tender or an asset. Kenya's Ministry of National Treasury & Economic Planning has proposed the inclusion of digital assets such as Bitcoin and NFTs in the country's tax regime through the 2023 Finance Bill (Kenyan Wall Street, 2023). This proposal comes despite the Central Bank of Kenya (CBK) warnings against crypto transactions by financial institutions and the general public. Specifically, the CBK highlighted the volatile nature of cryptocurrency and the lack of definite regulation.

Kenya has seen a strong adoption especially when it comes to peer-to-peer (P2P) exchanges, which are crucial to the SSA region's crypto economy (Chainanalysis, 2022). P2P trading is the act of buying and selling cryptocurrencies directly between users, without a third party or intermediary.

Egypt is the fastest-growing cryptocurrency market in North Africa (Chainanalysis, 2022). Remittance payments account for about 8% of Egypt's Gross Domestic Product (GDP), and the country's national bank has already begun a project to build a cryptocurrency-based remittance corridor between Egypt and the UAE, where many Egyptian natives work (Chainanalysis, 2022). The lifting of the ban on cryptocurrencies and the enactment of the Central Bank and Banking Sector Law in Egypt demonstrates a growing recognition of the potential benefits and importance of digital currencies. However, the regulatory framework for cryptocurrencies is still evolving, and it is yet to be determined how regulations will be implemented and enforced. In 2022, the **Central Bank of Morocco** announced that the Bill regulating the use of cryptocurrencies is ready and is going through processes. The Bank highlighted that the piece of legislation does not aim to constrain innovation but rather to protect individuals from risks associated with dealing in the highly speculative market (North African Post, 2022).

The African continent has witnessed a substantial increase in cryptocurrency adoption due to various economic factors. However, the regulatory landscape remains diverse and uncertain, with some countries implementing comprehensive regulatory frameworks, while others maintain a more cautious or restrictive approach. As the cryptocurrency market continues to evolve globally, African countries face the challenge of finding a balance between fostering innovation and ensuring investor protection and financial stability.

3.5. Developments of Cryptocurrency Regulations in Eswatini

There is currently no cryptocurrency legislation or regulation in Eswatini. However, the CBE has previously issued a public statement through the media stating that individuals who wish to engage in cryptocurrency trading must do so at their own risk. Cryptocurrency is not recognised as legal tender within the country. The FSRA and the CBE are closely monitoring developments at regional, African, and global levels. Nevertheless, the CBE has yet to make a decision regarding the introduction of CBDC in the Eswatini economy. The Money Laundering and Financing of Terrorism Prevention Act 2016 was amended in 2022 to include virtual asset service providers as accountable institutions.

These include virtual currency exchanges that provide exchange or custodial services for cryptocurrencies, as well as the issuance of cryptocurrencies, regardless of whether they are pegged in value to a reserve asset, cryptocurrency, fiat money, or exchange-traded commodities. The CBE has conducted research and experimentation on CBDC. In 2020, a CBDC Diagnostic Study was undertaken, highlighting that a CBDC could provide value to the Eswatini economy and financial system in three significant ways: enhancing payment system efficiency, meeting consumer demand, and aiding fiscal consolidation (CBE & CENFRI, 2020).

As Eswatini contemplates its stance on cryptocurrency market regulation, several crucial considerations come into play. Eswatini must weigh the potential benefits and risks associated with each regulatory approach. Despite the presence of the AML/CFT Framework, financial crimes, particularly those involving cryptocurrencies, are on the rise globally. Eswatini needs to evaluate potential risks tied to cryptocurrency use, such as money laundering and terrorism financing, and establish appropriate measures to mitigate these risks. Furthermore, the implementation of consumer protection measures, such as KYC procedures, is imperative to safeguard consumer interests and minimise the potential for consumer harm (Feldman et al., 2020). Eswatini should also explore the possibility of implementing taxation systems for cryptocurrencies, as this is a vital aspect of effectively regulating the cryptocurrency market (Field et al., 2020).

Top five African countries with high cryptocurrency adoption rates:

- Morocco
- Egypt
- Nigeria
- Kenya
- South Africa (ranked 30th globally)



Eswatini

Factors Driving Adoption:

- Large unbanked population.
- Unstable local currencies.
- Remittance payments.
- Pursuit of new income.
- Opportunities through financial innovation.

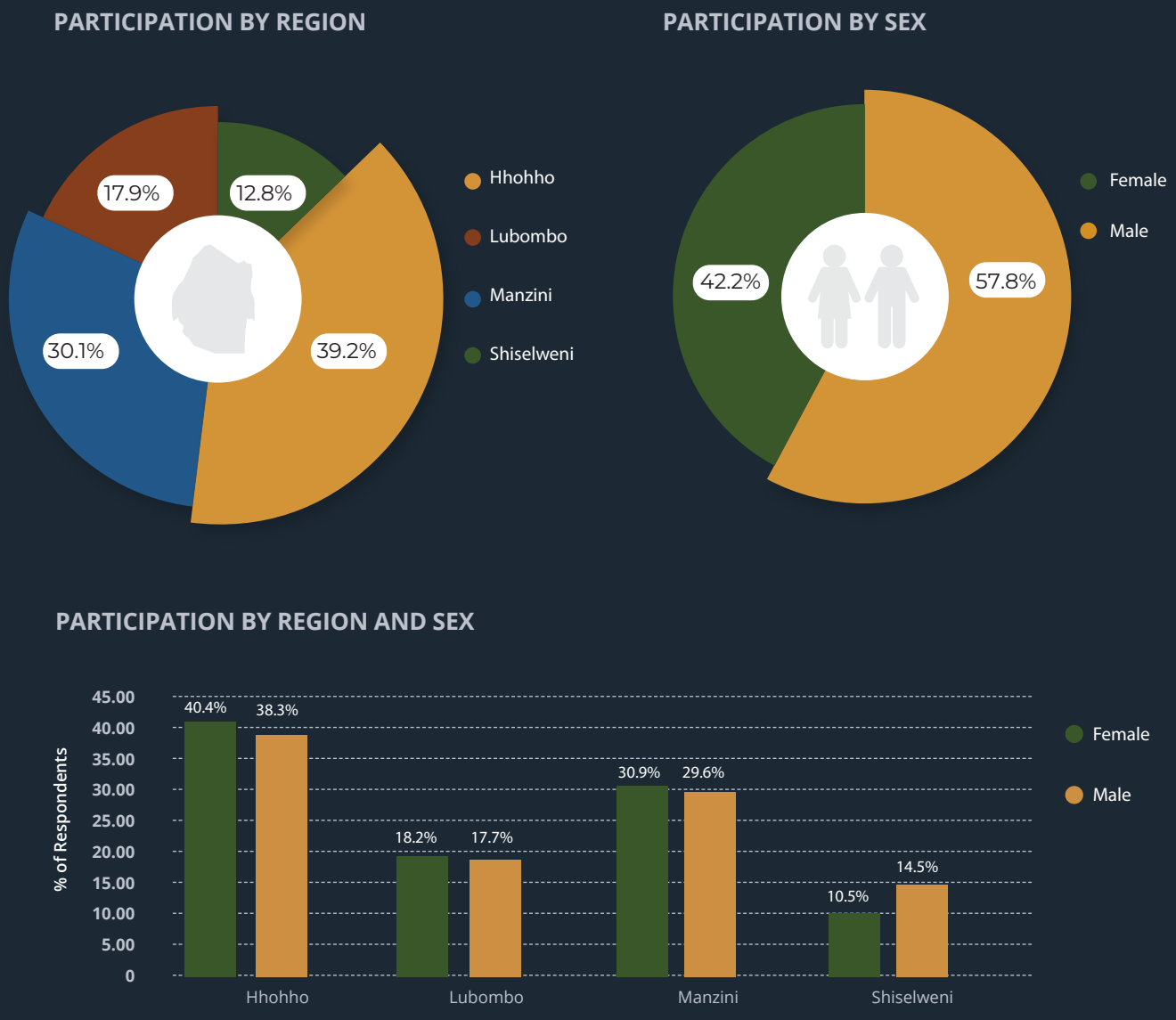
4. FINDINGS

4.1. Demographics

This section describes the demographic information of all respondents who participated in the survey.

This section provides an overview of the demographic information concerning all participants in the survey. The survey conducted interviews with 4561 respondents, of whom 39.2% hailed from the Hhohho region, 30.1% from Manzini, 19.9% from Lubombo, and 12.8% from Shiselweni (refer to Figure 4.1.1). The sample size adequately represents the national population of the Kingdom of Eswatini. Nevertheless, a noticeable discrepancy emerged in the sex distribution among participants in the cryptocurrency survey, with 57.8% of respondents identifying as male and 42.2% as female. Noteworthy disparities were also observed in the Shiselweni region, where 14.5% of respondents were male and 10.5% were female. These findings imply that, on the whole, males displayed a greater willingness to engage in the survey compared to their female counterparts.

Figure 4.1.1: Respondents' Participation by Region and Sex



This section outlines the demographic information of all participants who took part in the survey. The survey conducted interviews with 4,561 respondents, with 39.2% originating from the Hhohho region, 30.1% from Manzini, 19.9% from Lubombo, and 12.8% from Shiselweni (see Figure 4.1.1). The sample size provides a representative cross-section of the national population of the Kingdom of Eswatini. Nevertheless, a notable disparity emerged in the participation of males and females in the cryptocurrency survey; 57.8% of respondents identified as male, and 42.2% as female. Significant differences were also evident in the Shiselweni region, where 14.5% of respondents were male, and 10.5% were female. This implies that, on the whole, males were more inclined to participate in the survey than females.

Table 4.1.1: Education Status and Age of Respondents

Level of education	Female	Male	Total	Percentage (%)
Tertiary	943	1,252	2,195	48.4%
Secondary School/High School	888	1,232	2,120	46.7%
Primary/Elementary School	54	72	126	2.8%
Others (e.g Junior College, Pre-University, Vocational, Academy)	24	49	73	1.6%
No formal education	6	17	23	0.5%
Age				
18-24 years	472	539	1,011	22.3%
25-34 years	869	1,266	2,135	47.1%
35-44 years	387	548	935	20.6%
45-54 years	127	208	335	7.4%

Forty-seven per cent (47%) of respondents were engaged in full-time employment, with 17.8% identifying as self-employed (refer to Table 4.1.2). Merely 12.3% of the survey participants were students, 10.5% were actively seeking employment, and 1.3% were unemployed but not seeking work. The majority of respondents reported an income below E10,000.00, constituting 63.8% of the total. Around 13% of respondents had no income, while 17.5% reported incomes between E10,001.00 and E20,000.00. Those falling within the income range of E20,001.00 to E30,000.00 accounted for 3.4%, and only 0.5% declared incomes exceeding E50,000.00.

Table 4.1.2: Respondents' Employment Status and Income

Employment Status	Number of respondents	Percentage (%)
Employed full time	2,131	47.0%
Self-employed	810	17.8%
Student	557	12.3%
Not employed, but looking for work	476	10.5%
Employed part time	449	9.9%
Not employed and not looking for work	57	1.3%
Retired	24	0.5%
Homemaker	23	0.5%
Other	11	0.2%
Income Bracket		
Less than E10,000.00	2,892	63.8%
E10,001.00 – E20,000.00	793	17.5%
E20,001.00 – E30,000.00	155	3.4%
E30,001.00 – E40,000.00	57	1.3%
E40,001.00 – E50,000.00	20	0.4%

Table Continues on Next Page

Above 50,000.00	22	0.5%
No Income	589	13.0%
Other Bracket (Please specify)	2	0.0%
Prefer not to say	4	0.1%

4.2. Awareness and Ownership of Cryptocurrencies

A. Awareness of Cryptocurrencies

Figure 4.2.1 provides a summary of the participants' awareness of cryptocurrencies. The study revealed that 88.1% of the respondents were familiar with cryptocurrencies, such as Bitcoin, while only 11.9% indicated that they had never heard of cryptocurrencies. Figure 4.2.2 illustrates that males (51.6%) exhibited a higher level of awareness regarding cryptocurrencies compared to females (36.4%). Among those respondents who were knowledgeable about cryptocurrencies, the majority (46.1%) held tertiary education, while 38.7% possessed secondary/high school education. Notably, awareness of cryptocurrencies was lower among individuals with no formal education (0.3%) or primary/elementary schooling (1.5%).

Figure 4.2.1: Cryptocurrency Awareness

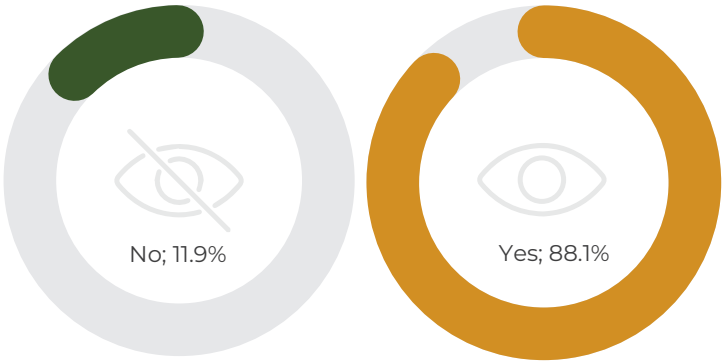
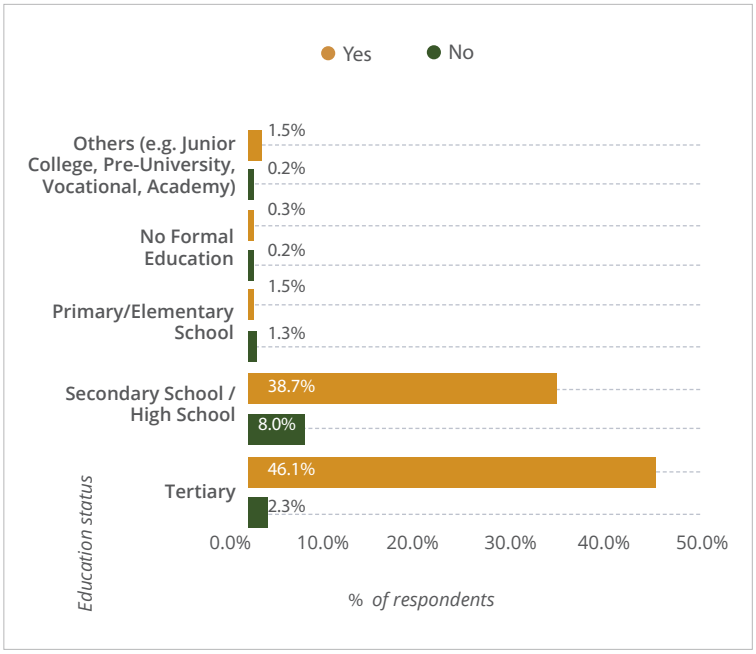
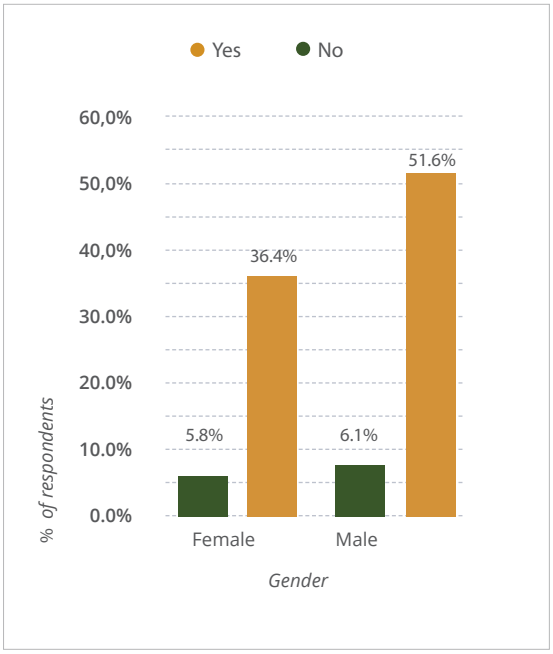


Figure 4.2.2: Cryptocurrency Awareness by Education Status and Sex

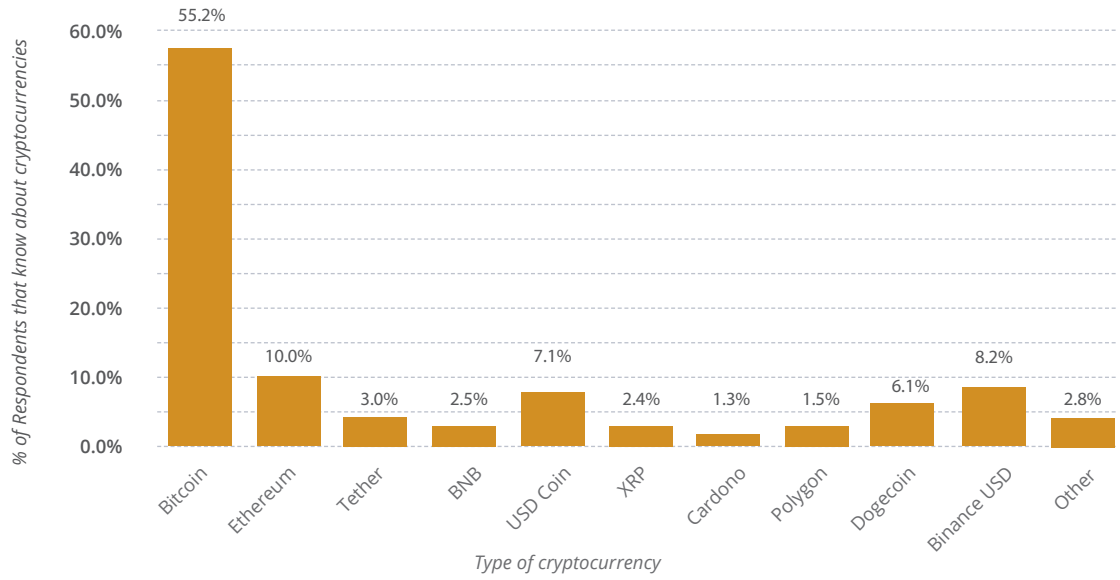




As illustrated in Figure 4.2.3, 55.2% of the study participants displayed a greater awareness of Bitcoin compared to other cryptocurrencies within the top 10 (as per CoinMarketCap ranking). Ethereum followed in second place with 10%, succeeded by Binance USD (8.2%), USD Coin (7.1%), and Dogecoin (6.1%). The cryptocurrencies Polygon (1.5%) and Cardano (1.3%) were the least recognised by the respondents. These findings align with existing literature, which asserts that Bitcoin holds the position of the most popular cryptocurrency, boasting a market capitalisation of US$578.9 billion, followed by Ethereum with a market capitalisation of US$227.1 billion (as of 21 July 2023) (CoinMarketCap, 2023). Despite the survey's revelation that Tether was among the least recognised cryptocurrencies, it stands as the third largest globally with a market capitalisation of US$83.9 billion.

The blockchain and cryptocurrency landscape in Eswatini remains in its early stages, and most individuals are still unfamiliar with the mechanics of cryptocurrencies and their associated benefits. The majority of people are more likely to be acquainted with Bitcoin than with Tether, primarily due to Bitcoin's higher visibility and media coverage. As the pioneering and most renowned cryptocurrency, Bitcoin has been in existence since 2009. It has garnered attention in various forms of media, including books, films, and television, granting it more exposure and recognition than other cryptocurrencies. Moreover, Bitcoin's technology has been widely adopted and utilised by numerous entities, further augmenting its prominence. In contrast, Tether entered the scene in 2015 and thus has not attained the same level of exposure and prominence as its more established counterpart.

Figure 4.2.3: Awareness of the Top 10 Cryptocurrencies in the Global Market





As illustrated in Table 4.2.1, social media platforms such as WhatsApp, Instagram, Twitter, LinkedIn, and YouTube emerged as popular sources of information regarding cryptocurrency in Eswatini. A total of 42.9% of the study respondents initially encountered information about cryptocurrency through these social media platforms. In comparison, 29.0% indicated that their initial exposure to cryptocurrencies came from informal discussions with non-experts, such as friends, family, and colleagues. Additionally, 9.7% and 9.3% of respondents became aware of cryptocurrencies through online articles (including blogs, news websites, etc.) and online advertisements (such as those on websites and social media), respectively. It is noteworthy that traditional media formats such as newspapers, magazines, TV programmes, and radio broadcasts exerted minimal influence on cryptocurrency awareness in Eswatini. This trend can be attributed to the widespread usage of smartphones equipped with internet access, enabling easy accessibility to information about cryptocurrencies online.

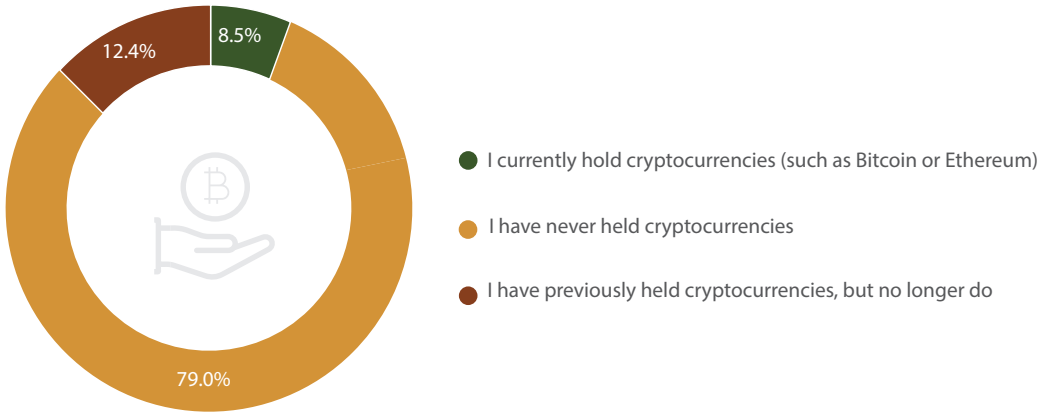
Table 4.2.1: Sources of Information on Cryptocurrency

Sources of information on Cryptocurrencies	Frequency	Percentage (%)
Posts made by connections on social media platforms (e.g., Facebook, Instagram, Twitter, LinkedIn, YouTube, etc.)	1,720	42.9%
General conversations with non-experts like friends, family and colleagues	1,161	29%
Online article (e.g. blog, news website etc.)	388	9.7%
Online advertisements (e.g. websites, social media etc.)	373	9.3%
General conversations with financial or digital experts	153	3.8%
TV or radio programme	107	2.7%
Printed article (e.g. newspaper, magazines, etc.)	46	1.2%
Offline advertisements (e.g. TV, radio, print, billboards etc.)	26	0.7%
Investment guidance from a professional (e.g.advisor/accountant)	27	0.7%
Other, please specify:	9	0.2%
None of the above	1	0.0%

Ownership of Cryptocurrencies

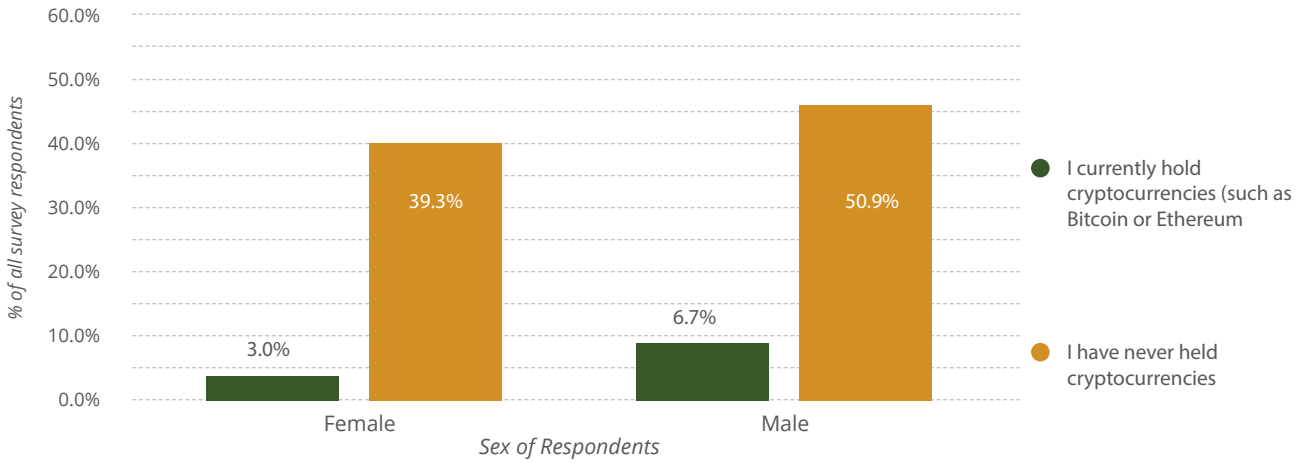
Despite the high awareness of cryptocurrencies, Figure 4.2.4 reveals that only 8.5% of respondents owned cryptocurrencies during the time of the survey. Approximately 12.4% had previously possessed cryptocurrencies but no longer do so for various reasons. Among the participants who were aware of cryptocurrencies, 79.0% have never owned any.

Figure 4.2.4: Cryptocurrency Ownership



As the realm of cryptocurrencies and blockchain technology continues to advance, comprehending the dynamics between both sexes and disparities within this domain becomes increasingly crucial. The study reveals that a higher proportion of males (6.7%) owned cryptocurrencies compared to their female (3.0%) counterparts, indicating that males were twice as likely to possess cryptocurrencies as females among the respondents (refer to Figure 4.2.5). This discrepancy in ownership was similarly observed in other countries such as the US and the UK, where males were discovered to be three times more likely than females to own cryptocurrencies (de Best, 2023). On a global scale, 67% of males own cryptocurrencies, while only 37% of females hold cryptocurrencies (Triple-A, 2023).

Figure 4.2.5: Cryptocurrency ownership by Sex



Regarding ownership based on age and education status, 14.4% of respondents who owned cryptocurrencies had a tertiary level of education, while 6.0% of respondents who owned cryptocurrencies had a secondary/ high school education (see Table 4.2.2). Within the age demographic, 11.3% of respondents who owned cryptocurrencies were aged between 25–34 years old, while 4.5% were between 35-44 years old.. These findings suggest that the youth (aged 18–34 years old) are the most likely to own cryptocurrencies. The results also indicate that individuals with lower levels of education exhibit limited interest in cryptocurrency. Similarly, the older generation (45 years old and above) also shows significant disinterest in cryptocurrency – a trend observed globally.

Table 4.2.2: Education Status and Age of Cryptocurrency Owners

Category		I currently hold cryptocurrencies (such as Bitcoin or Ethereum)	I have never held cryptocurrencies
Education level	Tertiary	14.4%	38.0%
	Secondary School/High School	6.0%	37.9%
	Primary/Elementary School	0.1%	1.6%
	Others (e.g. Junior College, Pre-University, Vocational, Academy)	0.5%	1.2%
	No formal education	0.0%	0.3%
Age	18-24 years	3.1%	18.6%
	25-34 years	11.3%	37.4%
	35-44 years	4.5%	15.8%
	45-54 years	1.4%	5.6%
	55+ years	0.7%	1.4%

Regarding cryptocurrency ownership by income bracket, individuals earning a monthly income of E20,000.00 or less (16.6%) emerged as the primary cryptocurrency holders, as depicted in Table 4.2.3. This suggests that, in Eswatini, those with lower incomes were more deeply involved in cryptocurrencies, potentially driven by the aspiration for quick financial gains. The analysis further underscores that in Eswatini, there was a significant interest in cryptocurrencies among low-income individuals, while stable middle-income earners exhibited comparatively lesser participation in the market. Nonetheless, 0.2% of high-income earners owned cryptocurrencies, strategically investing to preserve and expand their wealth. In essence, a discernible absence of middle-income individuals in the Eswatini cryptocurrency market was noted. As income levels increased, the inclination towards cryptocurrency ownership decreased. These findings contrast with the common literature which often asserts that cryptocurrency adoption is chiefly propelled by individuals with higher incomes. Conversely, in other markets like Australia, the UK, Argentina, and Brazil, there exists a correlation between engagement and income or socio-economic status (Visa Inc/ Material Company, 2021).

Table 4.2.3: Cryptocurrency Ownership by Income Levels

Income Bracket	I have never held cryptocurrencies	I currently hold cryptocurrencies (such as Bitcoin or Ethereum)
Less than E10,000.00	10.7%	51.3%
E10,001.00 – E20,000.00	5.9%	13.1%
E20,001.00 – E30,000.00	1.4%	2.4%
E30,001.00 – E40,000.00	0.6%	0.8%
E40,001.00 – E50,000.00	0.1%	0.4%
Above 50,000.00	0.2%	0.3%
No Income	2.1%	10.5%
Other Bracket (Please specify)	0.0%	0.1%
Prefer not to say	0.0%	0.1%

Reflecting its popularity, 43.5% of respondents owned Bitcoin (see Figure 4.2.6). Bitcoin typically springs to mind first when people contemplate cryptocurrency. Ethereum emerged as the second most owned cryptocurrency among the respondents, accounting for 10.9%. A similar trend was observed in the US, where Bitcoin maintained its status as the most popular cryptocurrency by a substantial margin (75%), followed by Ethereum at 49% (Wehrli, 2021). Moreover, 9.2% of respondents indicated ownership of Binance USD, while 8% reported possessing USD Coin. Other cryptocurrencies (11%) owned by respondents included Shiba Inu, Berry, Weownomy (WEOWNS), Dascoin, Litecoin, and Tron (TRX). Similarly, the study on cryptocurrencies in South Africa by Triple-A revealed that Bitcoin significantly dominated the market, accounting for 79% of the market share, followed by Ethereum at 45% (Triple-A, 2023). This indicated that the popularity of Bitcoin extended not only to Eswatini but also to various African countries, cementing its position as one of the most widely owned cryptocurrencies. However, there were variations in the most adopted cryptocurrencies across each country. For instance, in South Africa, Binance USD surpassed USD Coin in popularity, while in Eswatini, the situation was the reverse. Additionally, cryptocurrencies like Weownomy (WEOWNS) and Shiba Inu enjoyed greater popularity in Eswatini compared to other African countries. This could be attributed to the relative novelty of the Eswatini cryptocurrency market, possibly leading to swift adoption of these cryptocurrencies by local users.

Figure 4.2.6: Cryptocurrencies Currently or Previously Owned by Respondents

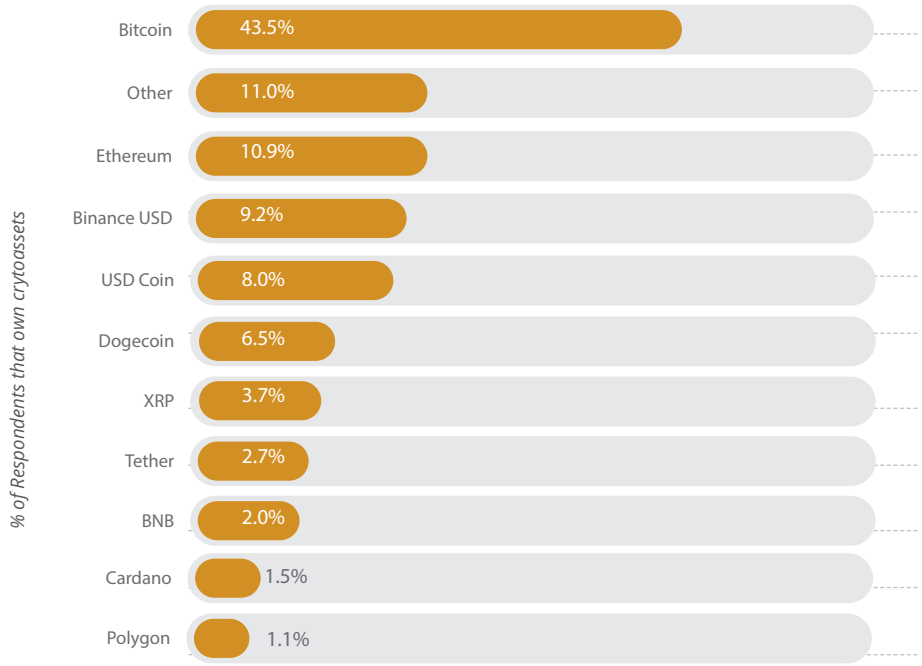
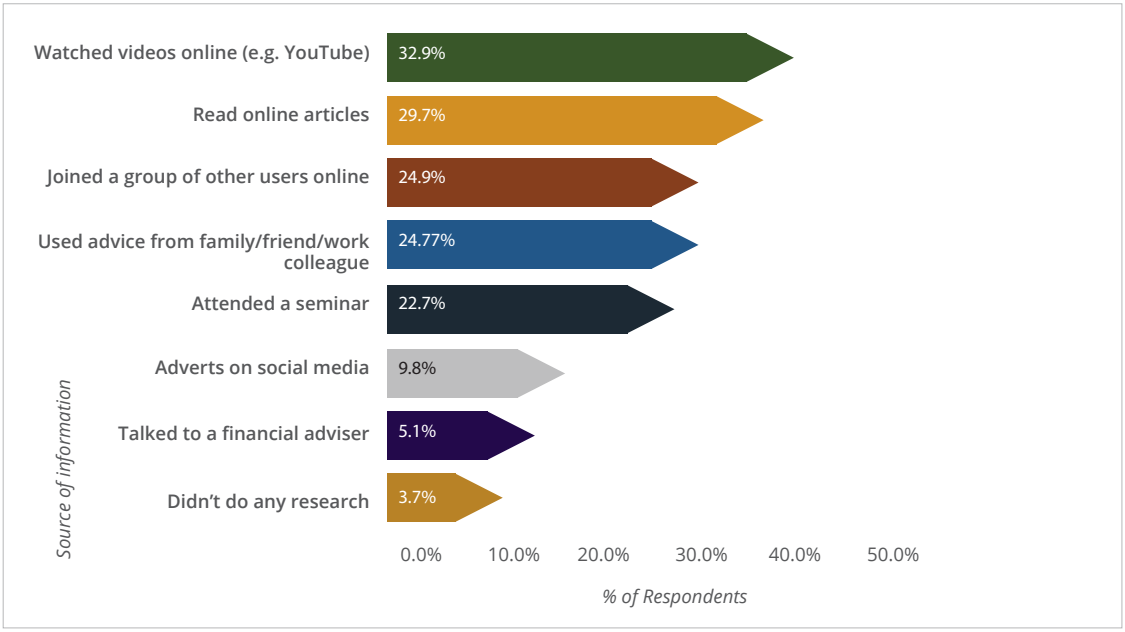


Figure 4.2.7 illustrates that before purchasing cryptocurrencies, respondents utilised various sources of information to educate themselves about cryptocurrencies. In general, the internet exerted the most substantial influence on the investment decisions of cryptocurrency holders. The primary sources of information employed by respondents were online videos (32.9%), such as those found on YouTube, closely followed by reading online articles (29.7%). Additionally, 24.9% and 24.7% indicated that they joined a group of other users online and sought advice from family, friends, or work, respectively. Only 5.1% of the respondents consulted a financial advisor before venturing into cryptocurrency investments. ***These findings suggest that the majority of individuals willing to invest in cryptocurrencies are frequently swayed by online sources and peer networks, rather than solely relying on financial advice from experts.***

Figure 4.2.7: Source of Information used to make Purchasing Decisions



Certain individuals are hesitant to invest in cryptocurrencies due to concerns about potential scams. The inherent characteristics of cryptocurrencies render them vulnerable to fraudulent activities or scams, primarily owing to their reliance on blockchain for verification and their bypassing of traditional financial service providers. The study's findings reveal that among the respondents who possessed cryptocurrencies, 45% of them have encountered scams within the cryptocurrency market, as illustrated in Figure 4.2.8.

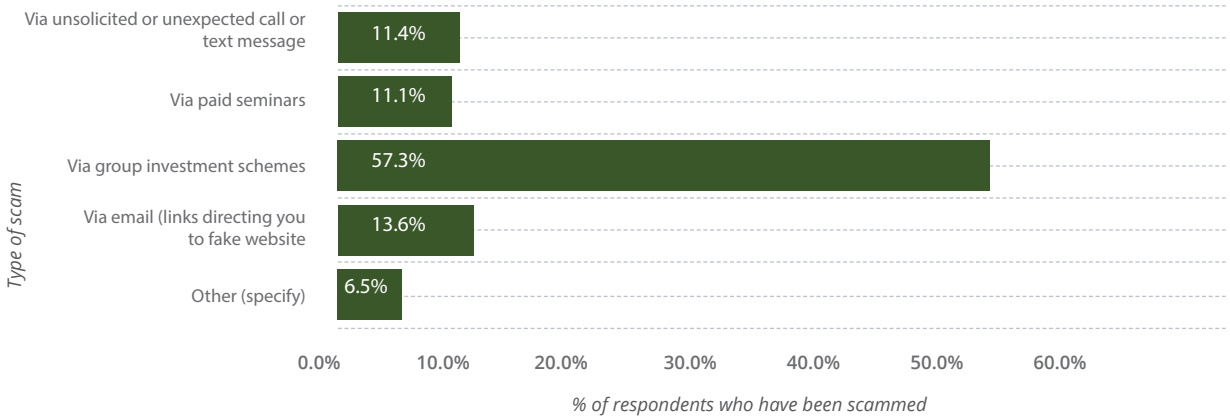
Figure 4.2.8: Respondents that have been Scammed



The various techniques employed by scammers to deceive their unsuspecting victims are depicted in Figure 4.2.9. Over half of the respondents (57.3%) fell victim to group investment schemes or Ponzi schemes, whereas 13.6% were lured into scams through fraudulent links leading to counterfeit websites where their account information was compromised. Approximately 11.4% of individuals were scammed via unsolicited or unexpected phone calls or text messages, as well as through paid seminars. The prevalence of Ponzi schemes is notable, where the managers of such schemes use funds from new investors to pay returns to earlier investors. The allure of substantial profits combined with minimal risk constitutes the primary enticement of a Ponzi scheme.

Nonetheless, investing in cryptocurrencies always carries inherent risks, and assured returns cannot be guaranteed. An additional subset of respondents (6.5%) reported falling victim to scams involving counterfeit trading platforms, while others experienced scams orchestrated by family members to whom they entrusted funds for cryptocurrency investments that were never made. Lastly, a small number of respondents were ensnared by scams propagated through social media platforms such as Facebook, Instagram, and WhatsApp. Scams related to cryptocurrencies on social media are also pervasive, drawing unsuspecting users in with the promise of cyptocurrencies through deceptive posts. These posts guide users to fraudulent websites, coercing them into completing a verification process to purportedly obtain the promised cryptocurrencies. Frequently, this verification entails making a payment to validate the authenticity of the account. Consequently, victims either lose the payment or have their personal information compromised.

Figure 4.2.9: Common Techniques used by Scammers



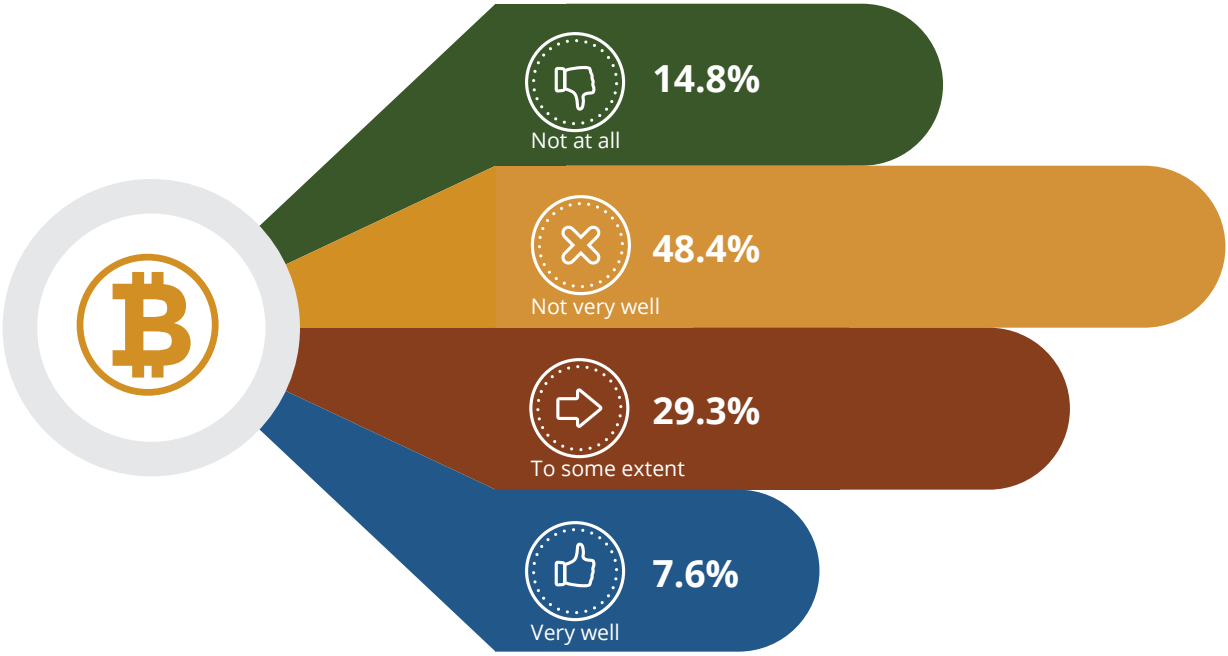
Among the respondents who chose the "other" option when asked about prevalent scamming techniques, a significant proportion reported falling victim to social media scams involving clicking links and transferring funds to fraudulent entities. While certain online platforms vanished without a trace overnight, other scammers sustained their corporate websites while barring investors from accessing their accounts. Individuals with limited familiarity with cryptocurrency exchange platforms sometimes mistakenly send their assets to incorrect accounts. Additionally, some scammers intentionally distribute their wallet addresses and promptly disappear once the cryptocurrency arrives at their end. It is important to recognise that the prevailing legal framework within the country prohibits deposit-taking or the appearance of providing financial services. Section 9(2) of the Financial Institution Act 6 of 2005 stipulates that "no person shall engage in deposit-taking business in Swaziland without prior written authorisation from the Bank". As such, consumers must exercise caution and verify that their funds are entrusted to duly registered FSPs for legitimate investment purposes.



B. Understanding of Cryptocurrencies

Participants who were familiar with cryptocurrencies were asked about their degree of comprehension regarding cryptocurrencies. Despite the prevalence of cryptocurrencies, 48.4% of the study participants expressed a limited understanding of the subject (refer to Figure 4.2.10). The investigation further revealed that 29.3% of respondents possessed some grasp of cryptocurrencies, while 14.8% confessed to having no understanding of them whatsoever. A marginal portion (7.6%) of respondents demonstrated a high degree of comprehension regarding cryptocurrencies. In aggregate, the study found that levels of understanding were generally modest, and it is plausible that the true comprehension levels might be even lower, given the inclination to overestimate self-reported levels of knowledge and understanding. Cryptocurrency has proven intricate to fathom due to its distinctive financial concept, entailing innovative ideas and intricate technologies like digital currency, mining, cryptography, and blockchain.

Figure 4.2.10: Understanding of Cryptocurrencies



When asked regarding their anticipation of the value of cryptocurrencies over the next 12 months, 48.7% of respondents held the belief that its value would escalate, 42.7% remained uncertain about the trajectory of cryptocurrency value, and 8.6% predicted a decline in the value of cryptocurrencies (refer to Figure 4.2.11). Given the inherent volatility of cryptocurrencies, their future valuation remains precarious. The cryptocurrency industry has been experiencing an upward trajectory, with global analysts forecasting continued growth in the future value of cryptocurrencies. Consequently, analysts have underscored the significance of enacting proper regulations and guidelines to ensure its sustainable advancement. Businesses accepting cryptocurrency payments have further propelled market expansion, yet concerns about security, safeguarding, and user safety continue to be pivotal. As the cryptocurrency market continues to evolve, addressing these apprehensions will be pivotal for its enduring success and widespread adoption.

Figure 4.2.11: Perception on the Value of Cryptocurrency in the next 12 Months



Expected movement in value of cryptocurrency in the next 12 months

Cryptocurrencies can be acquired through various avenues, including cryptocurrency exchanges, decentralised finance platforms, non-fungible token marketplaces, and Initial Coin Offerings (refer to Figure 4.2.12). Among the participants who held cryptocurrencies, 65.1% obtained them via cryptocurrency exchange platforms such as LUNO, AltcoinTrader, Dashtrader, Timetrade, Okex, Coinbase, StashCentral, and Binance. Approximately 24.0% of respondents enlisted the services of a broker-dealer or third party to facilitate cryptocurrency purchases on their behalf. Additionally, 6.1% engaged in cryptocurrency mining, 5.8% received cryptocurrencies from family and friends, 4.4% sourced cryptocurrencies from kiosks, and 2.1% acquired them in exchange for goods or services.

Figure 4.2.12: Acquisition Methods of Cryptocurrencies

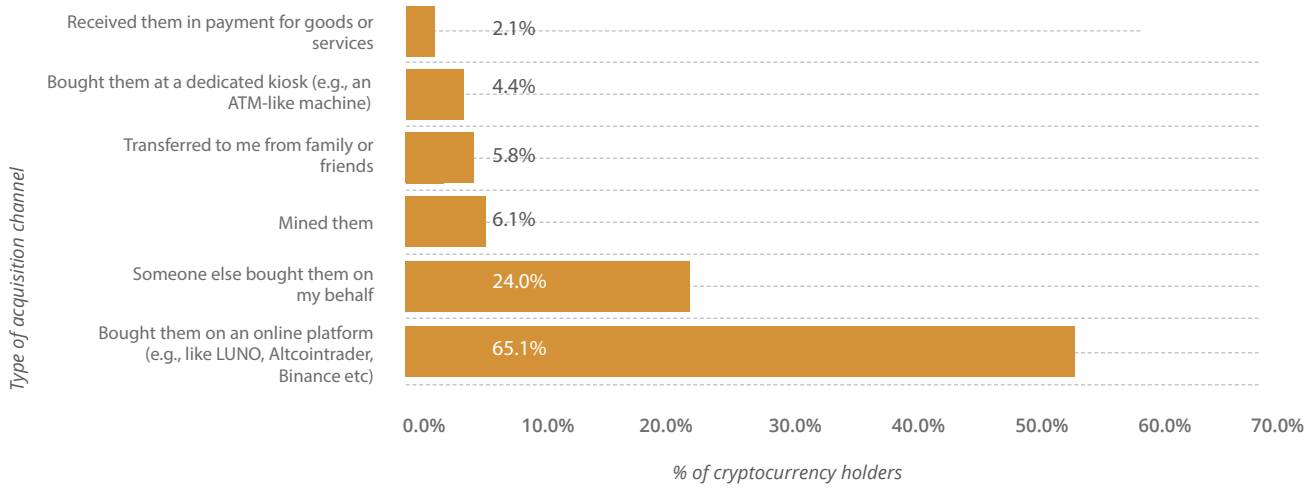


Table 4.2.5 ranks the reasons why cryptocurrency holders bought cryptocurrencies. The survey results revealed various motives behind investing in cryptocurrencies. In a scale of one (most important) to three (least important) the respondents rated their reasons for becoming cryptocurrency holders. About 62% of the respondents ranked "fear of missing out" as number one, while 59% became cryptocurrency holders to make quick money.

Other noteworthy reasons highlighted by respondents included investing in cryptocurrencies "just for fun or gambling" (53%), employing them for domestic or cross-border money transfers (52%), diversifying their investment portfolio (51%), and endorsing initiatives that leverage blockchain technology (50%). The findings unveiled that the fear of missing out ranked as the primary reason for respondents' cryptocurrency investments. This fear was also linked to the apprehension of regret, where individuals were concerned about potentially overlooking an opportunity to generate profits. The second most prevalent motive among participants was the desire to quickly accumulate wealth. However, only a small percentage indicated using cryptocurrency as a method of payment for online transactions.

Table 4.2.5: Reasons for Becoming a Cryptocurrency Holder

Reasons	Rank 1 (%)	Rank 2 (%)	Rank 3 (%)
Fear of missing out	62%	20%	18%
To make money quickly	59%	27%	14%
Other	48%	19%	33%
To know more about cryptocurrencies	34%	41%	25%
Encouraged by social media hype around cryptocurrencies	32%	39%	29%
As a long-term investment or retirement fund	31%	46%	23%
Just for fun or gamble	29%	53%	18%
To make domestic or cross-border money transfers (send money)	24%	24%	52%
To diversify my overall investment portfolio	18%	30%	51%
To use as a means of payment for online purchases	17%	34%	49%
To provide an inheritance	13%	48%	39%
To support initiatives that build on blockchain technology	8%	50%	42%

Those respondents who did not own cryptocurrencies were also asked to state and rank their reasons for not owning cryptocurrencies according to importance (see Table 4.2.6). More than half (55%) of these respondents indicated that cryptocurrencies are "too high risk" and 55% did not know enough about them, respectively. Furthermore, 53% of the respondents highlighted that they cannot afford to invest in cryptocurrency at the moment. Other reasons highlighted include the fact that cryptocurrencies are not properly regulated (44%), respondents need the money for other things (46%), while others are concerned about the fluctuating price (43%).

Table 4.2.6: Reasons for not Holding Cryptocurrencies at the Moment

Reasons	Rank 1 (%)	Rank 2 (%)	Rank 3 (%)
They are too high risk	55%	33%	11%
I do not know enough about them	55%	32%	13%
I cannot afford to do so at the moment	53%	26%	21%
Other	40%	31%	29%
I find other types of investments more attractive	37%	35%	28%
I am not interested in investing at the moment	30%	37%	33%
I am not interested in digital or cryptocurrencies	28%	38%	34%
I do not believe that they are properly regulated	23%	44%	33%
I am concerned about the fluctuating price	20%	37%	43%
I need the money for other things	14%	40%	46%

C. Future Intentions for Cryptocurrencies

Strong interest in owning cryptocurrencies in the future persists among the respondents, despite the uncertainties enveloping this domain (refer to Figure 4.2.13). The study's outcomes reveal that 49.4% of the participants intend to possess cryptocurrencies in the future, while 20.3% express no inclination towards future cryptocurrency holdings. Additionally, a significant 30.3% remain uncertain about their future intentions towards cryptocurrencies, a stance rationalised by the volatile and unpredictable nature of the cryptocurrency market. The introduction of cryptocurrency regulations holds the potential to convert sceptics into adopters, as such regulations would confer legitimacy upon the nascent marketplace. This legitimacy could encourage businesses to incorporate cryptocurrencies, thereby bolstering their value, security against fraudulent activities, and reducing volatility and criminal incidents. Table 4.2.7 presents the demographics of respondents with intentions to own cryptocurrencies in the future. Of this cohort, 51.9% fall within the 25-34 age bracket, 66.2% are male, 46.6% are engaged in full-time employment, and 60.0% earn less than E10,000.00. The younger generation exhibits a higher proclivity towards cryptocurrency use, and males tend to be more actively engaged compared to females. Individuals with monthly income display heightened interest in cryptocurrencies, possibly due to possessing the initial capital required for investment. Moreover, some within this group show clarity regarding the proportion of their income that they are willing to invest or risk in cryptocurrencies, a contrast to those with no income at all.

Figure 4.2.13: Intention to own Cryptocurrencies in the Future

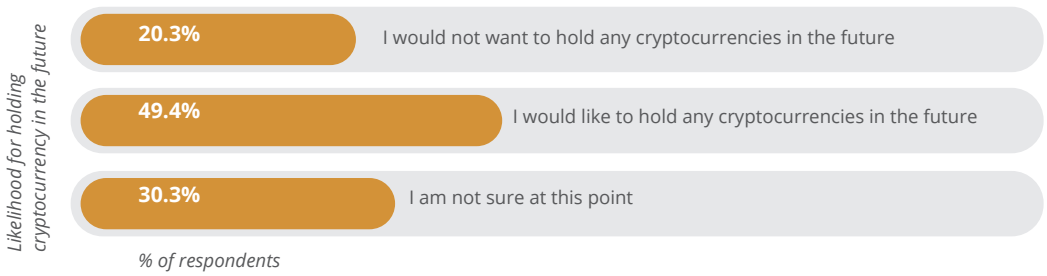


Table 4.2.7: Demographics of Future Cryptocurrency Holders

Demographics	Category	Frequency	Percentage
Age	18-24 years	447	22.6%
	25-34 years	1,025	51.9%
	35-44 years	354	17.9%
	45-54 years	116	5.9%
	55+ years	33	1.7%
Gender	Female	665	33.8%
	Male	1,305	66.2%
Employment Status	Employed full time	918	46.6%
	Employed part time	191	9.7%
	Homemaker	4	0.2%
	Not employed and not looking for work	16	0.8%
	Not employed, but looking for work	203	10.3%
	Other	4	0.2%
	Retired	5	0.3%
	Self-employed	348	17.7%
	Student	279	14.2%
Income Level	Less than E10,000	1,181	60.0%
	E10,001 – E20,000	384	19.5%
	E20,001– E30,000	82	4.2%
	E30,001 – E40,000	38	1.9%
	E40,001 – E50,000	6	0.3%
	Above 50,000	12	0.6%
	No Income	263	13.4%
	Other Bracket (Please specify)	1	0.1%
	Prefer not to say	1	0.1%

D. Value of Cryptocurrencies

Illustrated in Figure 4.2.14 is the aggregate value of cryptocurrencies owned by the respondents. Individually, 63.6% of the participants hold cryptocurrencies with a value below E10,000.00. This valuation aligns with the income status of the cryptocurrency holders. Conversely, 28.0% of respondents possess cryptocurrencies appraised between E10,001.00 and E50,000.00. A minority, comprising 2.9% of the participants, own cryptocurrencies exceeding the value of E100,000.00. Gender-wise, a larger proportion of males (65%) own cryptocurrencies valued below E10,000.00 compared to females (61%) (refer to Figure 4.2.15). As the cryptocurrency value escalates, a greater number of males assume ownership over females. However, within the range of E10,000.00 to E50,000.00, more females (34.3%) possess cryptocurrencies in contrast to their male counterparts (25.2%).

Figure 4.2.14: Ownership and Value of Cryptocurrencies among Respondents

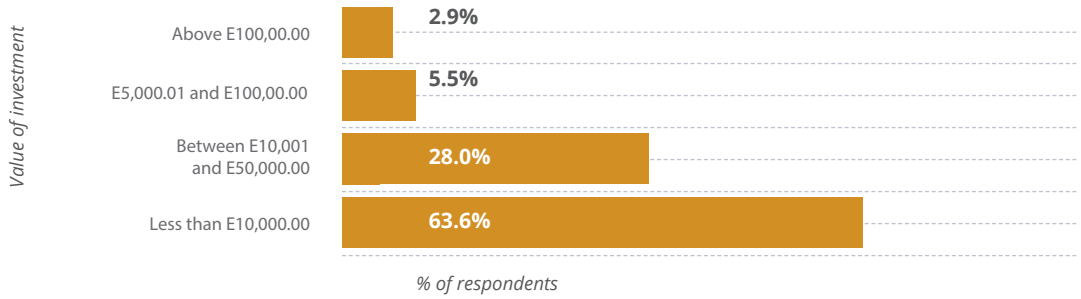


Figure 4.2.15: Ownership and Value of Cryptocurrencies among Respondents by Gender

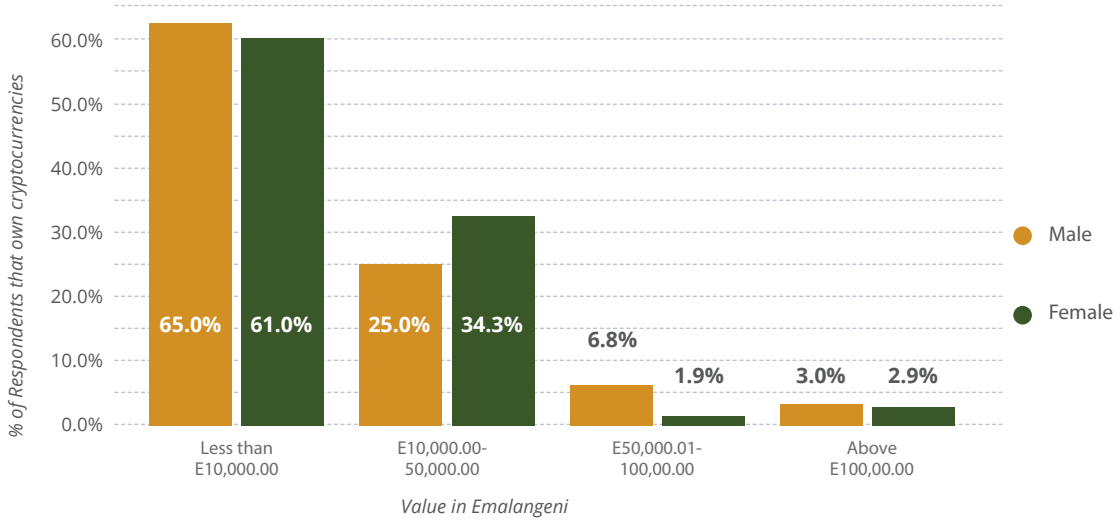
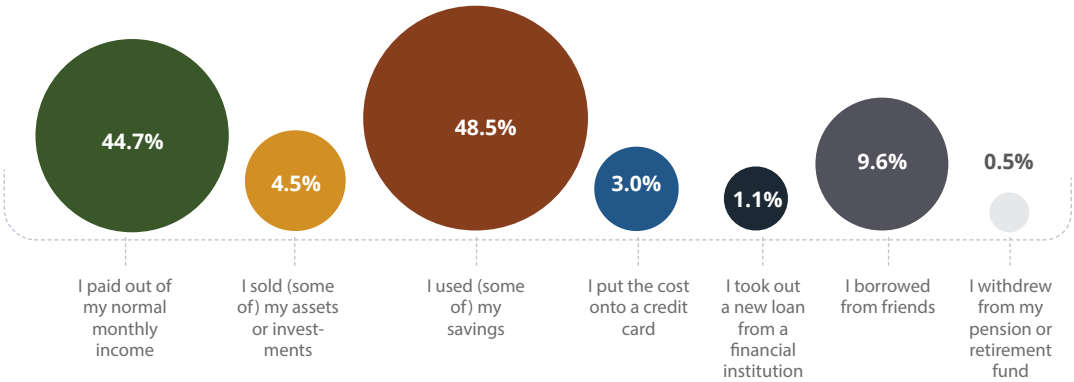


Figure 4.2.16 illustrates that 48.5% of respondents employed a portion of their savings to acquire cryptocurrency, while 44.7% indicated utilising their monthly income for cryptocurrency purchases. Approximately 9.6% obtained funds from friends or family, and 4.5% liquidated assets to invest in cryptocurrencies. A mere 1.1% of the participants acquired loans from financial institutions for cryptocurrency investments. A minor subset of respondents (0.5%) utilised their pension or retirement funds to finance their cryptocurrency holdings.

Figure 4.2.16: Source of Funds used to Acquire Cryptocurrencies



Data from the CBE has revealed intriguing insights into cryptocurrency transactions within the country for the period spanning January 2022 to December 2022. According to this data, a total of 3,938 cryptocurrency transactions were conducted during this timeframe (refer to Table 4.2.8). Predominantly, these transactions, constituting 90.5%, involved the outward flow of funds from the country through bank transfers and direct cash deposits into South African-based cryptocurrency exchanges like Altcoin Trader, LUNO, and VALR. Conversely, the remaining 9.5% of transactions witnessed cryptocurrency funds moving from South African-based exchanges to Eswatini. Among EmaSwati, Altcoin Trader and LUNO emerged as the preferred cryptocurrency exchanges, with a significant proportion of transactions transpiring through these platforms.

Table 4.2.8: Frequency of Flow of Funds

Cryptocurrency Exchange	Flow of funds		Grand Total
	IN	OUT	
Altcoin Trader	308	2,569	2,877
Crypto Payminer	-	3	3
Easy Crypto	-	15	15
LUNO	-	737	737
VALR PTY LTD	65	241	306
Grand Total	373	3,565	3,938

Upon analysing the value of these transactions, further insights come to light. The cumulative value of funds exiting the country via cryptocurrency exchanges in 2022 tallied up to E21,261,647.54 (refer to Figure 4.2.17). In contrast, the value of funds entering the country via these exchanges amounted to a notably lower figure of E1,022,016.59 (as demonstrated in Figure 4.2.17). This discrepancy underscores a substantial outflow of funds from Eswatini to South African-based cryptocurrency exchanges.

Figure 4.2.18 underscores the total value of funds traded through South African-based cryptocurrency exchanges. Predominantly, Altcoin Trader, with a value of E19,080,515.96, took the lead in traded funds, while LUNO facilitated trades amounting to E2,601,063.86. This data implies that Altcoin Trader garners preference among EmaSwati, possibly due to its expansive features and cost-effectiveness in comparison to LUNO. Altcoin Trader offers a broader array of supported cryptocurrencies and encompasses both buying and selling capabilities, allowing for immediate transactions. It also accepts Eswatini cell phone numbers and KYC documents. **By the end of 2022, the collective value of funds traded by cryptocurrency holders in Eswatini had surged to E22,283,664.13. This figure illustrates the scope of cryptocurrency activities within the country during the stipulated period.**



Figure 4.2.17: Value of Funds Flowing in and out of Eswatini

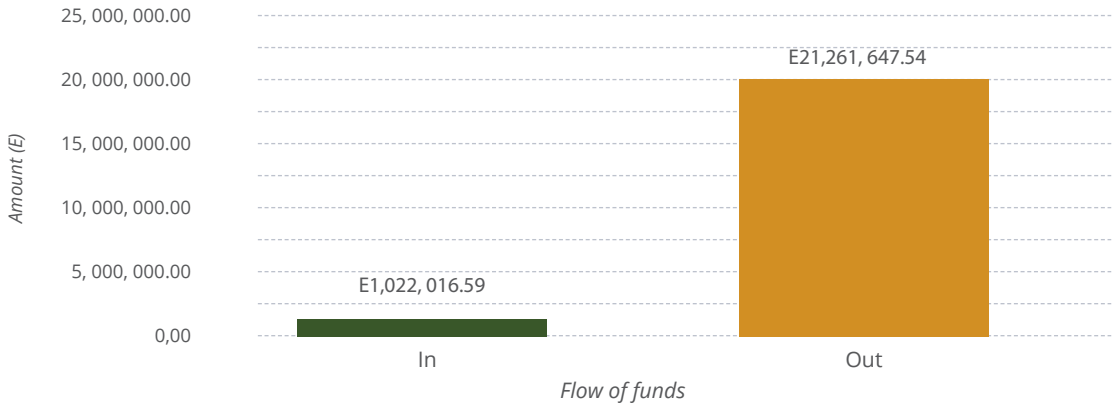
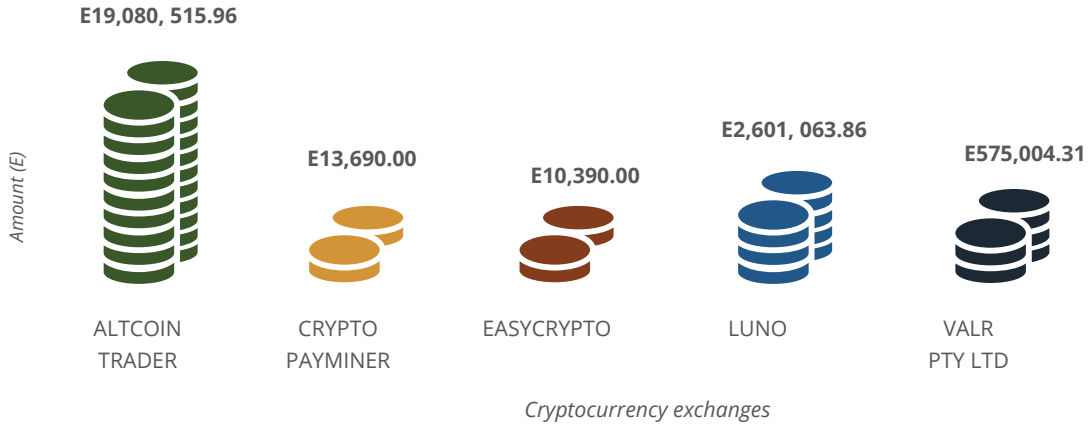


Figure 4.2.18: Total Value of Funds Traded via Cryptocurrency Exchanges in South Africa

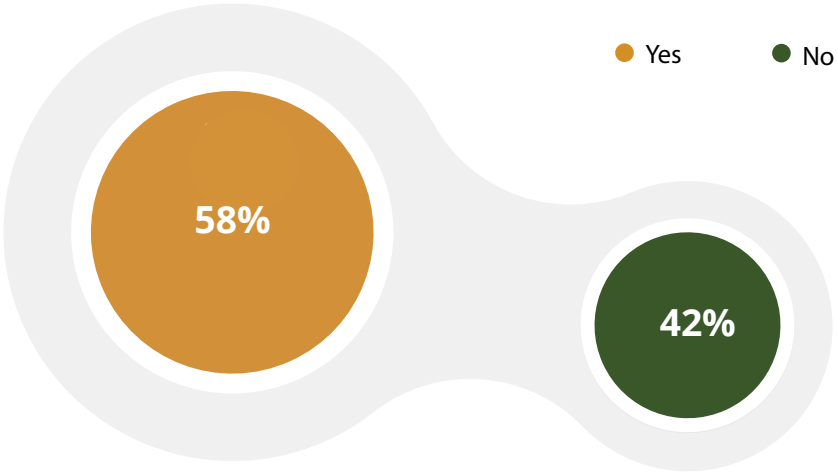


In essence, the data underscores the involvement of individuals in Eswatini with cryptocurrencies, particularly in trading and utilising South African-based cryptocurrency exchanges. The substantial volume of funds departing the country accentuates the necessity to establish a conducive environment that fosters investment, innovation, and the development of financial infrastructure services to cater to consumer needs. However, this data does not give a full picture as it only includes data from only authorised dealers and mainly covers Electronic Funds Transfer (EFT) transactions. It does not include card transactions and cryptocurrency exchanges outside South Africa.

E. Response to Fluctuation of Cryptocurrency Value

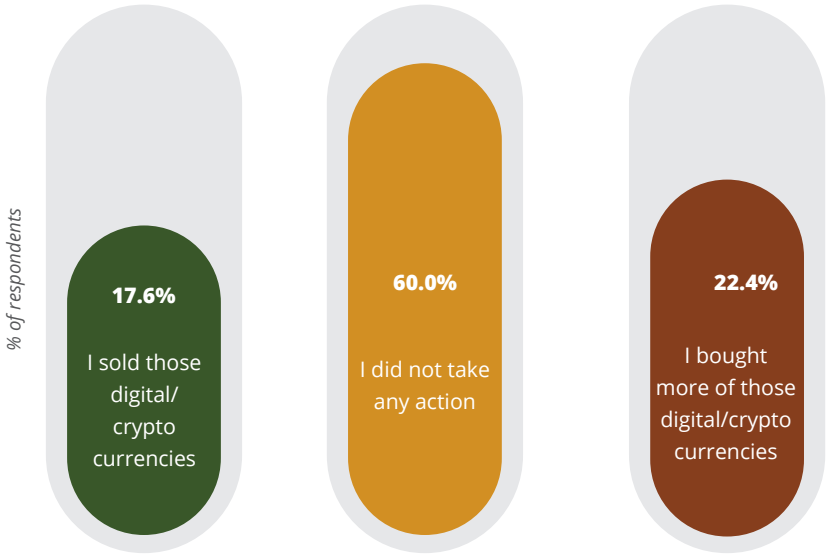
Engaging in cryptocurrency investment carries inherent risks. This is vividly demonstrated by Figure 4.2.19, which reveals that the value of cryptocurrencies has, at one point, plummeted for 58% of the respondents, dipping below their initial purchase price. The presence of price volatility renders cryptocurrency investment precarious. Nevertheless, 42% of the respondents have never encountered a decline in the value of their cryptocurrencies that dipped below their initial purchase price. When probed about their response to such devaluation, 60% indicated that they refrained from taking any action, 22% opted to acquire more of the cryptocurrencies, and 17.6% reported having sold their affected cryptocurrencies (as depicted in Figure 4.2.20).

Figure 4.2.19: Value of Cryptocurrency falling below the price paid



Percent of cryptocurrency owners that have experienced or not experienced a drop in value of their investment

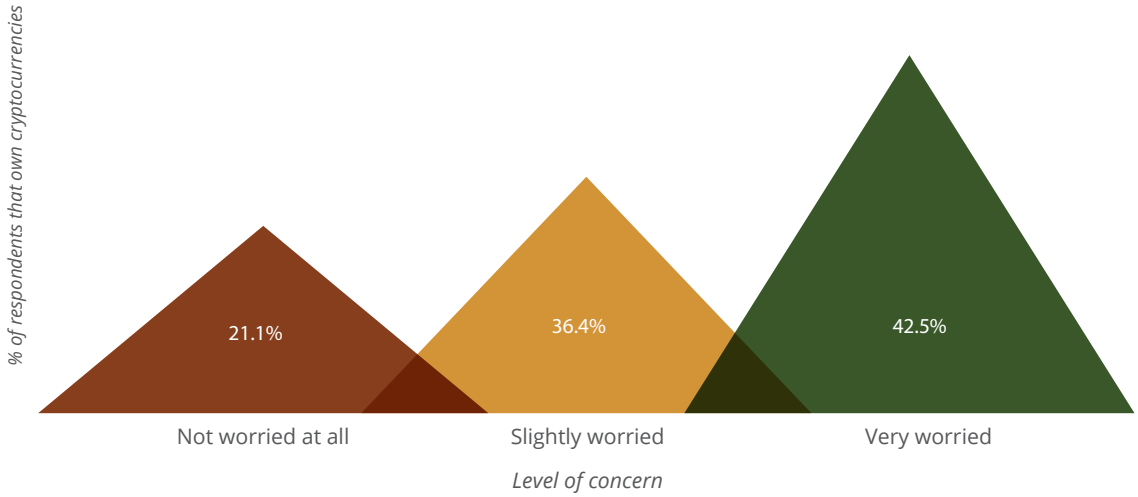
Figure 4.2.20: Reaction to fall in Cryptocurrency Value



Action taken in response to fall in value of cryptocurrency

Illustrated in Figure 4.2.21 is the degree of apprehension expressed by the respondents concerning the decline in cryptocurrency value. Remarkably, 42.5% of the study participants conveyed a high level of concern, whereas 36.4% exhibited a mild degree of worry. Approximately 21.1% of the respondents indicated that they harboured no concerns whatsoever about the decrease in cryptocurrency value. This suggests that certain cryptocurrency owners have grown accustomed to the inherent price volatility of cryptocurrencies, resulting in their comparatively reduced concern towards value drops, as they perceive such fluctuations as inherent components of the long-term trajectory of cryptocurrency price values.

Figure 4.2.21: Extent of worry over the fall in Cryptocurrency Value



F. Risk Appetite

Figure 4.2.22 depicts the risk appetite for investing in cryptocurrencies among the study participants. The results reveal that males (51.1%) were more open and willing to take on the risk compared to females (43.81%), as a greater sample of males interviewed showed that they were able to deal with potential losses and they further understood and knew about cryptocurrencies as highlighted in the previous sections.

Figure 4.2.22: Risk Appetite by Sex

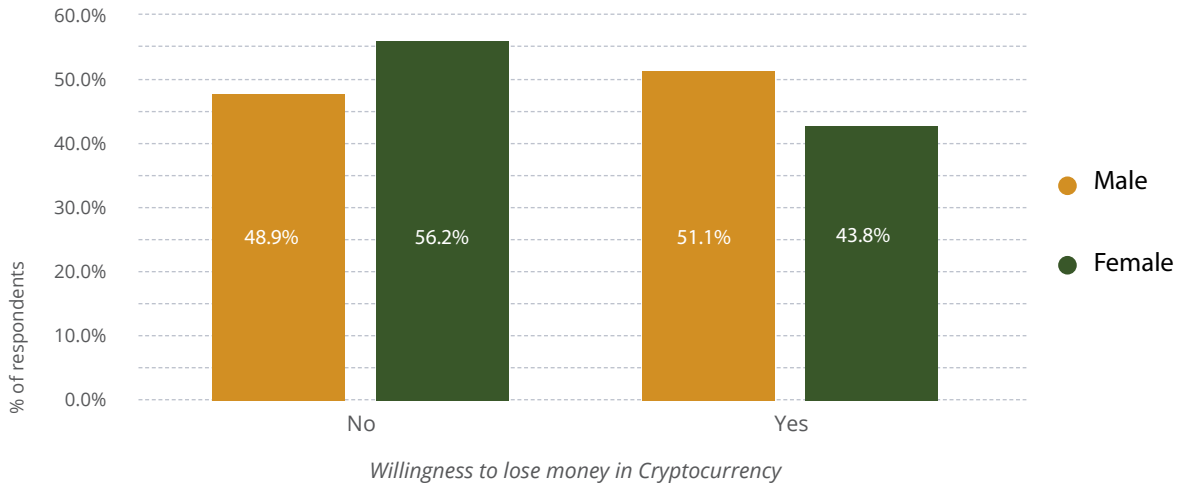


Table 4.2.9 illustrates that participants were prepared to leverage cryptocurrency market fluctuations by either purchasing various cryptocurrencies (32.9%) or increasing their holdings of existing cryptocurrencies (28.2%). This inclination reflects a noteworthy degree of risk tolerance and positive outlook among respondents. However, certain cryptocurrency holders exercised caution, as evidenced by their likelihood to either liquidate or expend all of their cryptocurrency holdings (31.4%), or to divest a portion of their holdings (23.5%) within the coming 12 months.

Table 4.2.9: Investment Strategies in Response to Cryptocurrency Market Fluctuations

Investment Strategies	Likely (%)	Not sure (%)	Unlikely (%)	Very likely (%)	Very unlikely (%)
Buy more of the cryptocurrencies you already hold	28.2%	16.0%	5.2%	37.2 %	13.4 %
Buy different cryptocurrencies	32.9 %	20.0 %	8.2%	26.8%	11.7%
Sell or spend some of your cryptocurrencies	23.5%	22.1%	19.2%	17.2%	18.0%
Sell or spend all of your cryptocurrencies	31.4%	14.3%	18.6%	22.1%	13.6%

4.3. General Perceptions towards Cryptocurrencies

G. Attitudes and Perceptions toward Cryptocurrencies

The data presented in Table 4.3.1 indicates that 48.9% of the respondents believed that cryptocurrencies can be converted into cash, while 47.1% believed that cryptocurrencies are more valuable as an investment than as a means of payment. Approximately 43.6% believed that cryptocurrencies facilitate illegal activities. Moreover, 40.6% of the respondents did not believe that the Government regulates cryptocurrencies. Additionally, opinions regarding the timing of investment were mixed, with 34.8% stating that it is a favourable time to invest in cryptocurrencies, while 42.5% are uncertain. The findings presented reflect a diverse range of perceptions and attitudes towards cryptocurrencies among the surveyed respondents.

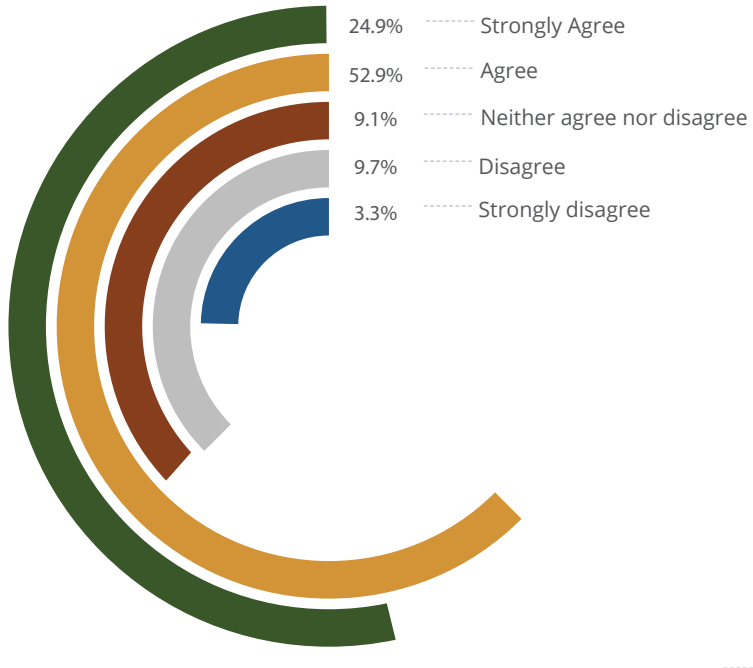


Table 4.3.1: Perceptions and Attitudes towards Cryptocurrencies

	Agree (%)	Disagree (%)	Neither agree Nor disagree (%)	Strongly Agree (%)	Strongly Disagreed (%)
Cryptocurrencies are more valuable as an investment than a means of payment	47.1%	8.2%	33.0%	8.8%	2.9%
Cryptocurrencies can easily be converted into cash	48.9%	9.3%	31.0%	8.1%	2.7%
The Government regulates Cryptocurrencies	12.7%	40.6%	30.1%	1.0%	15.6%
Cryptocurrencies facilitate illegal activities	43.6%	8.7%	17.9%	27.5%	2.3%
It is a good time to buy Cryptocurrencies	34.8%	11.2%	42.5%	7.6%	3.9%

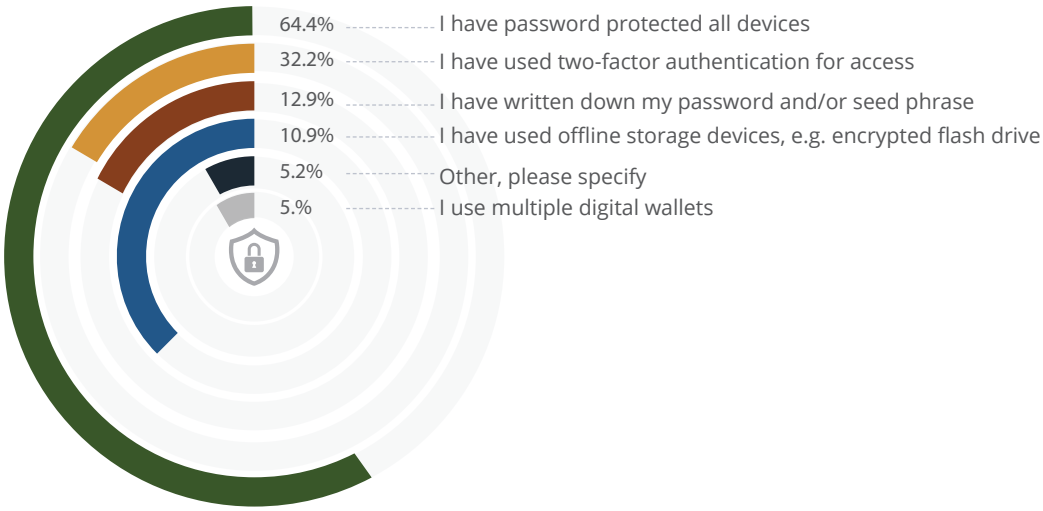
The results depicted in Figure 4.3.1 indicate that 52.9% of respondents agreed that they were fully aware of how to protect their personal key, digital wallet, and other access information related to their cryptocurrency against fraud or theft. However, there were still those who did not know how to safeguard cryptocurrencies against fraud or theft and may have some uncertainty or lack of awareness regarding security measures (9.7% of the respondents disagree, and 3.3% of the respondents strongly disagree).

Figure 4.3.1: Cryptocurrency Security: An Assessment of Users' Knowledge and Practices



The data presented in Figure 4.3.2 indicates that 64.4% of respondents protect their personal key, digital wallet, seed phrase, and access information by securing their devices with a password. Additionally, 10.9% use offline storage devices, 12.9% write down their password and/or seed phrase, and 32.2% employ two-factor authentication. A small percentage (5.1%) use multiple digital wallets, while 5.2% employ other methods, including biometric logins, account management by others, or undisclosed security measures. These findings highlight the diverse range of security measures adopted by respondents to safeguard their cryptocurrency against fraud or theft.

Figure 4.3.2: Cryptocurrency Security Practices



4.4. Regulatory Risks Identified from Cryptocurrency Activities in Eswatini

The study's scope extended to evaluating the prevalence of regulatory risks inherent in Eswatini's population participating in the cryptocurrency market. After careful consideration, the study identified three potential risks, namely: the absence of consumer protection, unlicensed provision of financial services, and money laundering.

The survey results reveal concerning consumer protection risks within Eswatini's current cryptocurrency landscape. Without legislative or regulatory frameworks for cryptocurrencies and their service providers, consumers have little to no protection should issues arise with cryptocurrency service providers. The survey found that an alarming 45% of respondents believe they have fallen victim to cryptocurrency-related scams (see Figure 4.2.8).

These scams utilised a variety of techniques, including group investment schemes (57%), unsolicited emails (13%), paid seminars (11.1%), and unexpected phone calls or text messages (11.4%) (see Figure 4.2.9). Compounding this issue is the fact that most respondents (68.2%) do not understand cryptocurrencies, leaving them vulnerable to fraudulent activities (see Figure 4.2.11). Among the highly ranked reasons for holding cryptocurrencies were social media hype, gambling, and quick money-making schemes (see Table 4.2.6).

This lack of knowledge and the need for people to make quick monetary gains create opportunities for fraudsters, who are constantly devising new ways to exploit unsuspecting victims. Fraudsters employ high-pressure tactics and promise unrealistic returns on investment, capitalising on people's desire for swift profits.

The second risk identified through the survey is the unlicensed provision of financial services, encompassing illegal deposit-taking and the offering of investment services. This was demonstrated by the methods respondents used to acquire their cryptocurrencies, with 22.8% of those who owned cryptocurrencies acquiring them through someone else buying on their behalf (see Figure 4.2.13). This confirms the possibility that individuals are investing in cryptocurrencies for others or taking public deposits to invest or purchase cryptocurrencies without meeting the necessary requirements.

This concern is significant, as providing financial services without a licence is prohibited under Eswatini's financial sector laws, including the Financial Institutions Act (FIA) of 2005. The FIA mandates that any entity or individual engaging in public deposits must be licensed or authorised to do so. The FSRA Act of 2010 also forbids individuals from providing, purporting to provide, or presenting themselves as authorised to offer financial services in Eswatini without proper permission under the Act.

The third risk identified through the survey was money laundering. According to the survey results, the possibility of money laundering through cryptocurrencies exists in Eswatini, albeit at a relatively minimal level. One major reason for this is that the cryptocurrency exchanges identified in this study perform customer due diligence (CDD) procedures on wallet holders. Cryptocurrency holders are obligated to complete the KYC process before transferring their cryptocurrencies from their wallets or withdrawing funds from the cryptocurrency exchange. This offers a level of protection in the transaction process, as criminals encounter significant obstacles when attempting to utilise funds' value due to the requirements of the KYC process. It is important to note that the integrity of the verification process of cryptocurrency exchanges could introduce risks. Nonetheless, most transactions between fiat money and cryptocurrencies are conducted through the banking system, as illustrated in Section 4-D. This also aids in minimising the risk of money laundering, as banks necessitate the submission of KYC documents to enable transactions through those accounts.

Additional findings from the survey suggest that the use of cryptocurrencies as a means of payment or for domestic or cross-border transfers is currently limited (see Table 4.2.6). This implies that while some people perceive cryptocurrencies as an investment option, fewer regard them as an alternative form of currency. Consequently, the potential for cryptocurrencies to be employed for money laundering purposes is reduced. However, it remains crucial that the integrity of service providers remains paramount within the cryptocurrency space.

4.5. Initial Coin Offerings (ICOs)

H. Awareness and Ownership of ICOs

Figure 4.4.1 shows respondents' awareness of Initial Coin Offerings (ICOs). The survey findings revealed that 91% of the respondents had never heard of ICOs, while only 9% stated that they were aware of ICOs. The results also indicate that the respondents, in general, were unfamiliar with ICOs. Table 4.4.1 presents the demographics of the respondents who were knowledgeable about ICOs. Awareness of ICOs exhibited variations across different demographic categories. Males (68.9%), individuals aged between 25-34 years (54.3%), those with tertiary education (78.0%), and those employed full-time (52.8%) displayed a higher level of ICO awareness. Understanding these demographic patterns could aid in tailoring educational initiatives and outreach endeavours to enhance awareness and comprehension of ICOs among underrepresented groups.

Figure 4.4.1: Awareness of Initial Coin Offerings (ICO)

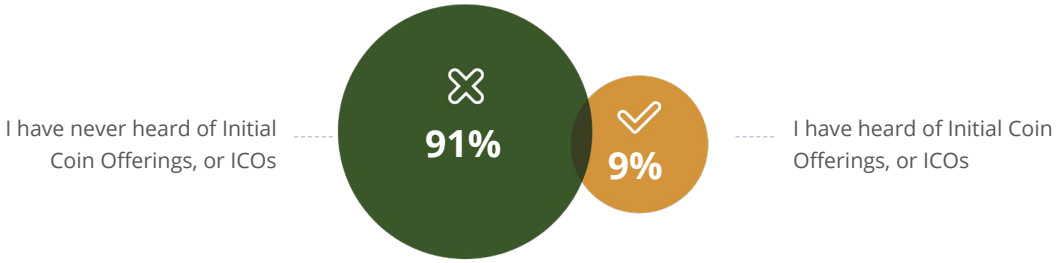


Table 4.4.1: Awareness of ICOs according to different Demographics

Demographic	Category	Frequency	Percentage (%)
Sex	Male	294	68.9%
	Female	133	31.1%
Age	18-24 years	64	15.0%
	25-34 years	232	54.3%
	35-44 years	86	20.1%
	45-54 years	30	7.0%
	55+ years	15	3.5%
Education level	No formal education	1	0.2%
	Primary/Elementary School	1	0.2%
	Secondary School/High School	92	21.5%
	Tertiary	333	78.0%
Employment Status	Employed full- time	225	52.8%
	Employed part-time	39	9.2%
	Self-employed	69	16.2%
	Not employed, but looking for work	35	8.2%
	Not employed and not looking for work	5	1.2%
	Retired	4	0.9%
	Student	48	11.3%
	Homemaker	1	0.2%

As depicted in Figure 4.4.2, among all respondents who had heard about ICOs, 74.8% of them had never held investments in ICOs, while only 25.2% currently had investments in ICOs. The results indicate that ownership of ICOs is lower than the ownership of cryptocurrencies in Eswatini. Promoting responsible investment practices, providing access to reliable information, and facilitating investor protection measures can encourage more individuals to engage with ICOs.

Table 4.4.2 provides insights into the demographic distribution of individuals who held ICOs. As shown, 73.8% of ICO holders were male, and 26.2% were female, revealing a gender imbalance in ICO ownership. In terms of age, 46.8% of ICO holders fell within the age group of 25-34 years, followed by the age group of 35-44 years at 24.8%. Concerning educational background, respondents with tertiary education represented the highest percentage at 77.6%. Males appear to be more knowledgeable about ICOs and cryptocurrencies compared to their female counterparts.

Figure 4.4.2: Ownership of Initial Coin Offerings (ICOs)



Table 4.4.2: Individuals that hold ICOs according to different Demographics

		I currently hold investments in ICOs (Initial Coin Offerings)	Percentage (%)
Gender	Female	28	26.2%
	Male	79	73.8%
Age	18-24 years	13	11.9%
	25-34 years	51	46.8%
	35-44 years	27	24.8%
	45-54 years	10	9.2%
	55+ years	8	7.3%
Education	No formal education	1	0.9%
	Primary/Elementary School	0	0.0%
	Secondary School/High School	23	21.5%
	Tertiary	83	77.6%

Table 4.4.3 highlights the distribution of the number of ICOs in which respondents have invested. The table reveals that 33.9% of the respondents have invested in one ICO, 27.5% invested in two ICOs, while 16.5% have invested in three ICOs but less than ten. Additionally, there were respondents who have invested in more than ten ICOs (5.5%).

Table 4.4.3: Number of ICOs Investments by Respondents

Number of ICOs	Frequency	Percentage (%)
One	37	33.9%
Two	30	27.5%
More than three but less than ten	18	16.5%
Three	12	11.0%
More than ten	6	5.5%
Don't know	6	5.5%

Table 4.4.4 presents the reasons provided by respondents for investing in ICOs. The most commonly cited reason was the desire to make quick money (29.1%). This suggests that some investor's view ICOs as an opportunity for short-term financial gains. Another notable reason mentioned by 16.1% of the respondents was to gain more knowledge about ICOs, indicating a motivation to learn and understand this investment avenue better.

Table 4.4.4: Reason of Investing in ICOs

Reason for investing in ICO	Frequency	Percentage (%)
To make money quickly	74	29.1%
To know more about ICOs	41	16.1%
As a long-term investment or retirement fund	33	1.0%
To diversify my overall investment portfolio	32	12.6%
Fear of missing out	27	10.6%
To provide inheritance	15	5.9%
To support initiatives that build on blockchain technology	12	4.7%
Just for fun	10	3.9%
I believe in the project making the offer	10	3.9%

Table 4.4.5 presents the current value of respondents' investments in ICOs. Among the respondents who have invested in ICOs, 80.4% had ICO investments valued below E50,000.00, 13% had investments in the range of E50,001.00 to E99,999.00, while a smaller percentage had investments in the range of E100,000.00 to E199,999.00 (4.3%), and E300,000.00 to E399,999.00 (2.2%). These findings suggest that most of the respondents had relatively modest investment values in ICOs, with fewer respondents having larger investment amounts. Figure 4.4.3 indicates that among the respondents, females hold investments below E50,000.00, while males have a higher representation across different investment value ranges, including holdings between E50,001.00 to E99,999.00 as well as between E100,000.00 to E199,999.00. The results suggest that males are more likely to invest more money in ICOs than their female counterparts.

Table 4.4.5: Current value of ICO Investment

Value	Frequency	Percentage (%)
< E50,000.00	37	80.4%
E50,001.00 - E99,999.00	6	13.0%
E100,000.00 - E199,999.00	2	4.3%
E300,000.00 - E399,999.00	1	2.2%

Figure 4.4.3: Total Current ICO Investment by Sex in Emalangeni (E)

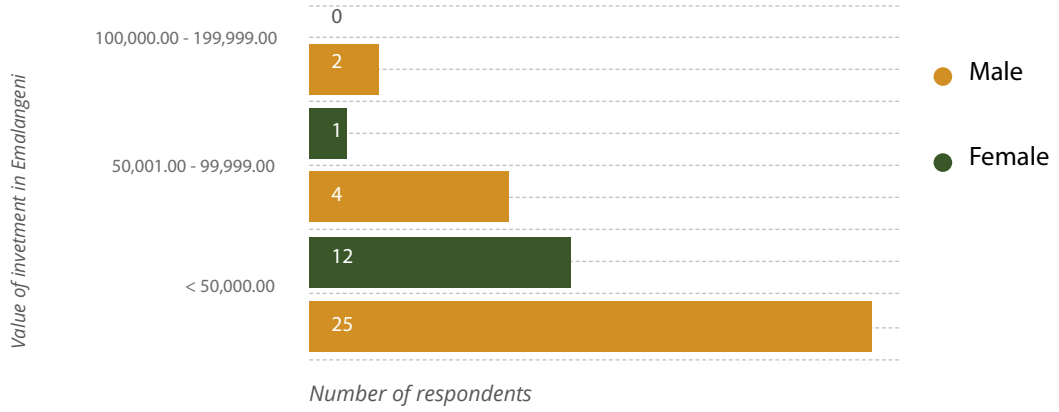


Table 4.4.6 reveals that among respondents who were employed full-time, 16 had investments below E50,000.00, four had investments in the range of E50,001.00 to E99,999.00, two had investments in the range of E100,000.00 to E199,999.00, and one respondent had an investment in the range of E300,000.00 to E399,999. Among the respondents who were employed part-time, four respondents had investments below E50,000.00. For respondents who were unemployed but looking for work, three had investments below E50,000.00. Overall, the data shows the distribution of investment values in ICOs across different employment statuses, with the majority of respondents having investments below E50,000.00.

Table 4.4.6: Total Current Investment by Employment Status

Employment Status	Value in Emalangeni (E)			
	< 50,000.00	50,001.00 - 99,999.00	100,000.00 - 199,999.00	300,000.00 - 399,999.00
Employed full-time	16	4	2	1
Employed part-time	4	-	-	-
Not Employed, looking for work	3	-	-	-
Not employed, not looking for work	1	-	-	-
Retired	1	-	-	-
Self-employed	8	2	-	-
Student	4	-	-	-
Total	37	6	2	1

The data in Table 4.4.7 provides insights into how respondents funded their ICO purchases. The majority (43) paid using their normal monthly budget. Thirty-eight respondents used some savings, while 11 sold assets or investments. A smaller number borrowed from friends/family (8) or used credit cards (2). Only one respondent took out a loan or used pension/retirement funds. Regarding other sources, four respondents provided additional information - three mentioned receiving airdrops, while one used staked USDT.

Table 4.4.7: Source of Funding for ICOs

Method of payment	Number of Respondents
I paid out of my normal monthly budget	43
I used (some of) my savings	38
I sold (some of) my assets or investments	11
I borrowed from friends or family	8
Other	4
I put the cost onto a credit card	2
I took out a new loan from a financial institution	1
I used my pension or retirement fund	1
Other sources of payment	Number of Respondents
Total	4
Airdrops	3
I used some USDT that I had been staking for a while	1
Total	108

Figure 4.4.4 shows that 82.6% of respondents reported that the value of their most recent ICO investment had increased, while 13% saw a decrease, and 4.3% did not track the value. This suggests that many individuals experienced positive ICO returns, although some observed declines. As depicted in Figure 4.4.5, 47.1% of respondents reported that their ICO value had declined below the initial purchase price at some point, compared to 42.9% who said it had not, and 10% who were uncertain. The results indicate a high likelihood of ICO values falling below the acquisition cost, representing an inherent risk of ICO investing.

Figure 4.4.4: Change of Current Value of ICO Investment

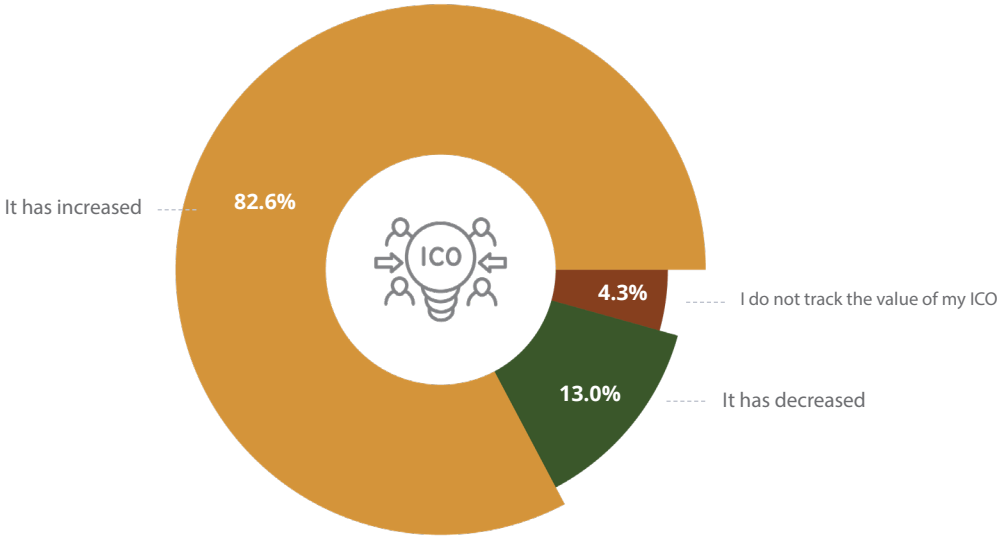
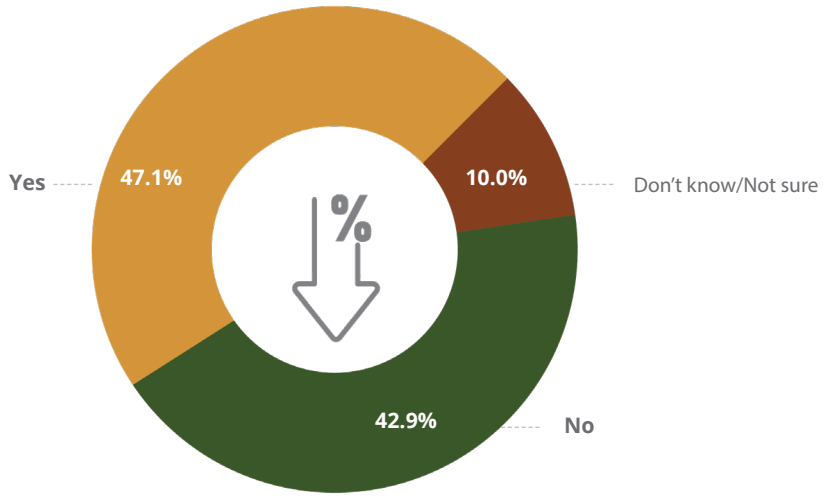


Figure 4.4.5: ICO Investment ever fallen below the price you paid



When asked how they reacted the last time their ICO value dropped below the purchase price, 52.6% of respondents reported taking no action, as shown in Figure 4.4.6. However, 47.4% said they tried to sell their investment as quickly as possible in response to the decrease. These results suggest that investors reacted differently to market shocks - some optimistically viewed an ICO value drop as temporary and expected recovery, while others panicked and sold to minimise losses. The data indicates a split between those who held despite losses and those who sought to cut their losses.

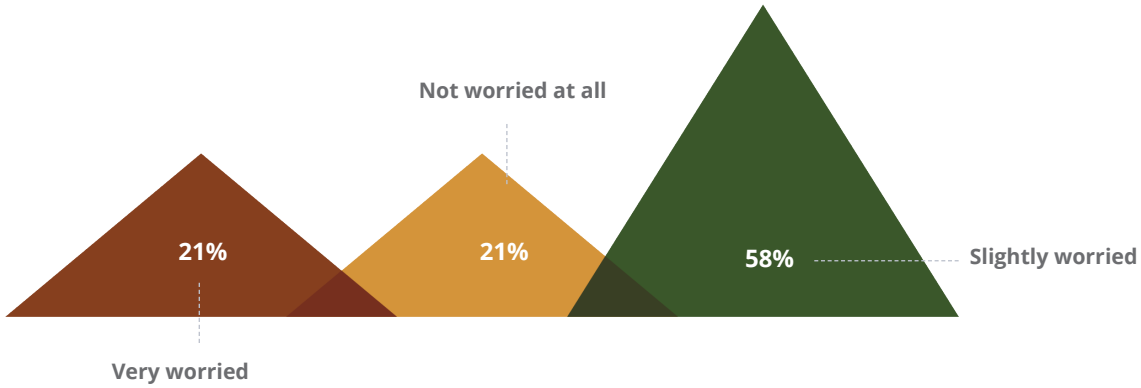
Figure 4.4.6: Action taken by Respondents when ICO Investment fell below the price they initially paid for it



% of Respondents that have ICOs investments

After the value of their ICO investments dropped below the initial purchase price, 57.9% of respondents reported feeling very worried about their financial security, as shown in Figure 4.4.7. Another 21.1% were slightly worried, while 21.1% were not worried at all. These results indicate that most ICO investors became concerned about their finances after experiencing a decline in ICO value. A majority felt either very or slightly worried, likely due to uncertainty regarding the future performance of their investment.

Figure 4.4.7: Level of Concern about future financial security after the decrease in value of ICO investment below the initial amount paid for it



4.6. Characterisation of Cryptocurrencies Participants

I. General Observations on Behaviours

The data in Table 4.6.1 shows that many respondents identified with certain financial attitudes and behaviours. A sizeable portion (51.2%) indicated a willingness to take investment risks with their own money, suggesting openness to financial ventures. Furthermore, most respondents (69.9%) preferred financial companies with strong ethics, highlighting the importance of moral considerations in finance. The vast majority (83.9%) enjoyed learning about new technologies like smartphones, implying receptiveness to tech applications in banking.

However, the data also revealed areas of concern and differences among respondents. A considerable portion (72.6%) reported dissatisfaction with their current financial situation, indicating financial strain. Additionally, 61.4% of the respondents felt that they will never have the things that they desire in life because of their current financial situation, implying a sense of financial limitation or unfulfilled aspirations.

"A substantial percentage (69.9%) preferred financial companies with strong ethical stances, indicating concern for ethics in their financial dealings."



Table 4.6.1: Respondents Financial Attitudes and Behaviours

Description	Describes me somewhat	Describes me very well	Does not describe me very well
I am prepared to risk some of my own money when saving or making an investment	51.2%	18.4%	30.3%
I am satisfied with my present financial situation	10.7%	16.7%	72.6%
I tend to live for today and let tomorrow take care of itself	17.4%	16.1%	66.4%
I prefer to use financial companies that have a strong ethical stance	69.9%	19.8%	10.3%
I enjoy learning about new ways of using technology such as smart phones	83.9%	10.8%	5.4%
I am well informed about financial matters	35.0%	47.9%	17.2%
Because of my money situation, I feel like I will never have the things	20.4%	18.2%	61.4%

Most of the respondents (89.3%) agreed that an investment with a high return was likely to be high risk, indicating an understanding of the relationship between risk and potential returns in investments (see Table 4.6.2). Similarly, a significant percentage (88.2%) agreed that high inflation led to a rapid increase in the cost of living, demonstrating awareness of the impact of inflation on expenses. A majority (69.2%) agreed that investing in global markets carried higher risk compared to national markets, suggesting a perception of increased risk in international investments. However, a notable percentage (19.3%) disagreed with this statement, indicating a difference in opinions among respondents. Findings also showed that only 46.4% of respondents agreed that it was usually possible to reduce the risk of investing in the stock market, suggesting a level of scepticism or uncertainty among respondents about the effectiveness of risk reduction strategies in stock market investments.

Table 4.6.2: Respondents' Opinion on Market Behaviour

Market behaviour	True	False	Don't know
An investment with a high return is likely to be a high risk	89.3%	6.3%	4.4%
It is a higher risk to invest in global markets than in national markets	69.2%	19.3%	11.5%
High inflation means that the cost of living is increasing rapidly	88.2%	6.3%	5.5%
It is usually possible to reduce the risk of investing in the stock market	46.4%	20.5%	33.0%

j. Drivers of Investment in Cryptocurrencies

Finance scholars not only investigate the share of cryptocurrency investors but also the socio-economic, demographic, financial, and environmental factors influencing exposure to cryptocurrencies in individual portfolios. The factors affecting traditional financial investment decisions of individuals can be examined in two parts: demographic, psychological, and non-psychological factors. This research also discusses individual cryptocurrency investments based on these factors.

I. Demographic factors – This research examined the influence of demographic factors, including age, sex, education, and income level. An individual's education impacts their social environment, shaping investment decisions and analyses (Usul et al., 2002). Income status also affects investment capacity, as disposable income enables greater participation (Korniotis & Kumar, 2011). Age correlates to risk tolerance, with older investors having more knowledge but deteriorating skill (Hallahan et al., 2004). Gender roles produce different financial attitudes, with studies showing women exhibit less risky behaviour (Fehr-Duda et al., 2006). In summary, key demographic factors of education, income, age, and sex significantly influence investment behaviours and risk profiles.

II. Social influence – Social influence refers to an individual's belief that others should adopt a particular technology (Arias-Oliva et al., 2019). Acceptance of new technologies depends heavily on social surroundings and personal perceptions (Alaklabi & Kang, 2018). As Al-Nawayseh (2020) found, investment decisions are often shaped by friends, family, and social media. In cryptocurrency, some individuals invest from fear of missing out, while others are swayed by relatives and hype. In summary, social factors like relationships and perceptions exert a significant influence on individual investment behaviour.

III. Security (authentic, no-scams) – Security is a key factor influencing cryptocurrency purchase intentions and risk perception. Blockchain technology provides security lacking in traditional currencies by enabling transparent, immutable transactions. However, negative incidents like pyramid schemes and fraud associated with some cryptocurrencies can still erode trust (Sun et al., 2021). In summary, while blockchain provides security benefits, unlawful activities can undermine trust and deter cryptocurrency adoption.

IV. Motivation – Individual motivation significantly impacts decision-making, as people act on instinctive needs (Celtek, 2004). Investors with low motivation may not research investments thoroughly or monitor trading closely. As cryptocurrency prices fluctuate constantly, unmotivated investors can experience poor returns or losses.

V. Level of knowledge – Investor behaviour, like many other behaviours, can change through learning. Investors reflect the knowledge and experiences they have gained during their learning periods in life in their investment decisions (Tavşancı and Örücü, 2001). Financial information owned affects investors' decisions. Understanding how to use technology also influences the ability to make financial decisions. To invest in cryptocurrency, one needs to know how to operate platforms such as Binance, Okex, COINDCX, CoinSWitch, etc.

K. Correlation

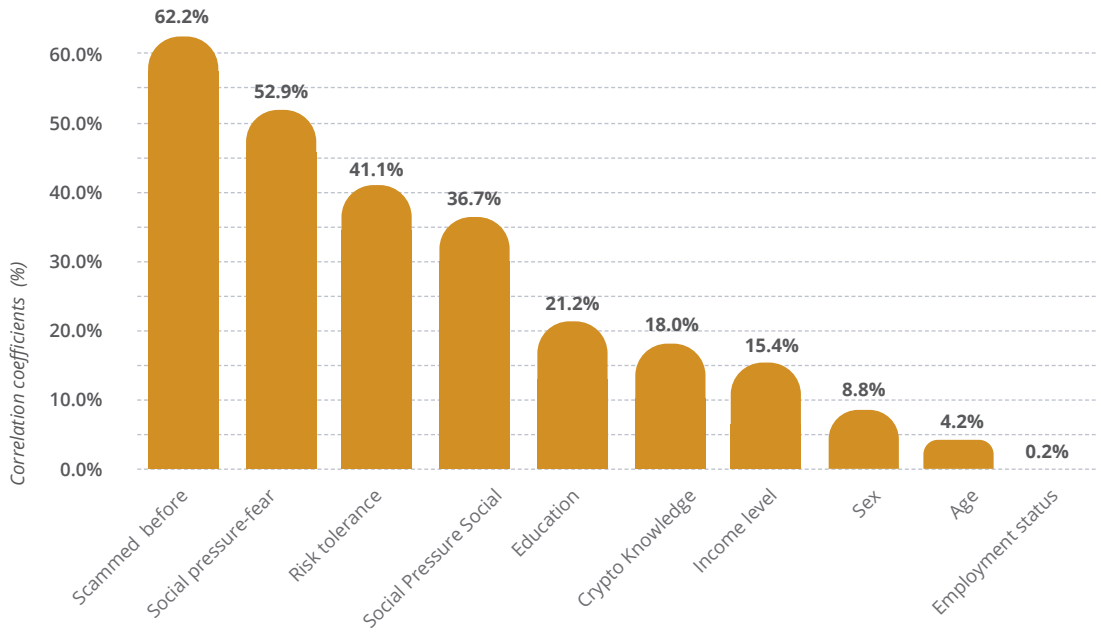
To examine the relationships between demographic and psychological factors in cryptocurrency investment, this study employed correlation analysis on the data. Pearson's correlation coefficient was used, assigning values between negative one and one to signify the strength of association between two numerical variables. A coefficient of zero indicates no correlation, while one and negative one denote total positive and negative correlation, respectively. For instance, a coefficient of 0.7 for two variables would

signify a significant positive association, indicating that as one variable increases in value, the other does as well. Conversely, a negative coefficient implies that as one variable rises, the other decreases in value.

A. Results of Correlations

Figure 4.6.1 summarises the correlations between cryptocurrency ownership and various factors using Pearson coefficients. This technique quantified the linear relationships between ownership likelihood and each variable, providing insights into ownership drivers. The analysis measured how strongly experiences, social pressures, risk tolerance, demographics like education and income, and other factors correlated with cryptocurrency investment at a given time. The significant coefficients ($p<0.05$) indicate the observed associations were unlikely to be random occurrences but rather meaningful relationships between the variables.

Figure 4.6.1: Correlation Between Demographic Factors & Cryptocurrency Ownership



Scammed Before:

The correlation coefficient of **62.2%** highlighted a strong positive relationship between having been scammed before and cryptocurrency ownership. This suggests that individuals who own cryptocurrency are more likely to experience scams. The likelihood of being scammed does not deter people from participating in cryptocurrency.

Social Pressure/Fear of Missing Out:

The moderate correlation coefficient of **52.9%** indicated a positive relationship between social pressure related to the fear of missing out (FOMO) and cryptocurrency ownership among the study participants. Meaning that individuals driven by the FOMO on potential gains are more likely to own cryptocurrencies, reflecting the speculative nature and allure of high returns..

Risk Tolerance:

The moderate correlation coefficient of **41.1%** indicated that individuals with a higher risk tolerance are more inclined to invest in cryptocurrencies. Thus, suggesting that the volatile and speculative nature of cryptocurrencies attracts individuals who are comfortable taking risks in their investment choices.

Social Pressure/Social Media Hype:

With a correlation coefficient of **36.7%,** there was a significant positive relationship between social pressure related to social media hype and cryptocurrency ownership. Thus, implying that individuals influenced by social media trends and hype are more likely to own cryptocurrencies, highlighting the impact of social media influence and FOMO on adoption.

Education:

The positive correlation of **21.2%** indicates that, as the level of education increases, there is a tendency for cryptocurrency ownership to increase as well. Individuals with higher levels of education are more likely to own cryptocurrencies, potentially due to their better understanding of blockchain technology and the potential benefits it offers.

Income Level:

The positive correlation coefficient of **15.4%** indicated that higher-income individuals are more likely to own cryptocurrencies. This could be attributed to their financial capacity to invest and take advantage of the potential returns offered by cryptocurrencies.

Crypto Knowledge:

The correlation coefficient of **18.0%** suggested a positive relationship between crypto knowledge and cryptocurrency ownership among the study participants. Individuals with a better understanding of cryptocurrencies are more likely to invest in them, emphasising the importance of knowledge and education in making informed investment decisions.

Sex:

The correlation coefficient of **8.8%** signifies a statistically significant, albeit weak, association between the sex of respondents and cryptocurrency ownership in the context of this study conducted in Eswatini. This indicates that there is a relationship between sex of reapondents and the likelihood of individuals owning cryptocurrencies, but the strength of this relationship is relatively small.

Age:

The correlation coefficient between age and cryptocurrency ownership was found to be **4.2%,** thus indicating a small positive relationship between the two variables. The positive correlation means that as age decreases, the probability of owning cryptocurrencies increases. The reasons behind this trend could be attributed to that younger generations were often early adopters of technological innovations and were more familiar with digital platforms and online transactions.

Employment Status:

The weak correlation coefficient of **0.2%,** which is not statistically significant, suggest that employment status does not significantly impact cryptocurrency ownership among the respondents.



Overall, the correlations provided insights into the various factors associated with cryptocurrency ownership. While some factors, such as education, risk tolerance, cryptocurrency knowledge, and social pressures, had significant relationships with ownership, it is important to note that correlation does not imply causation. Multiple factors and individual circumstances contribute to an individual's decision to own cryptocurrencies, and further research is needed to establish more robust causal relationships.

4.7. Financial Service Providers (FSPs)

This section presents findings on the uptake of cryptocurrencies among FSPs in the country. The section further lays out information on the common cryptocurrencies used by local companies to transact and increase their profits, amongst other reasons. The study surveyed 34 institutions which were classified as banks (5), FinTech (1), insurance (6), investment managers (8), pension and retirement funds (1), savings and cooperatives (3), insurance brokers (2), microfinance (4), audit firm (1), insurance and retirement fund (1), investment advisory firm (1), and other (1).

As shown in Table 4.7.1, 30 out of 34 surveyed institutions had not yet begun investigating or exploring cryptocurrencies as an investment option. Specifically, none of the savings and credit cooperatives, insurance companies, insurance brokers, pension and retirement funds, microfinance, and FinTech organisations that responded to the survey had started exploring cryptocurrency investments. On the other hand, one (1) Investment Manager and one (1) bank had started researching cryptocurrency investments. In addition, two (2) Investment Managers stated that they had begun experimenting with cryptocurrencies. Therefore, out of the 34 interviewed organisations, only two investment managers indicated that they had cryptocurrencies in their balance sheets (see Table 4.7.2). The cryptocurrencies held by these organisations were Bitcoin, Ethereum, and USD Coin.

Table 4.7.1: FSPs Exploring/Researching Cryptocurrencies

Type of financial institution	Not yet	Yes, we are researching	Yes, we have been or are experimenting	Grand Total
Investment Manager	5	1	2	8
Insurance	6			6
Microfinance	5			5
Bank	3	1		4
Savings and Cooperatives	3			3
Insurance Broker	2			2
Fintech	1			1
Pension Fund and Retirement Fund	1			1
Investment Advisory Firm	1			1
Audit Firm	1			1
Insurance and Retirement Fund	1			1
Other, specify	1			1
Grand Total	30	2	2	34

Table 4.7.2: FSPs that have Invested in Cryptocurrencies or have Crypto-assets in their Balance Sheet

Type of financial institution	No	Yes	Grand Total
Investment Manager	6	2	8
Insurance	6		6
Microfinance	5		5
Bank	4		4
Savings and Cooperatives	3		3
Insurance Broker	2		2
Fintech	1		1
Pension and Retirement Fund	1		1
Investment Advisory Firm	1		1
Audit Firm	1		1
Insurance and Retirement Fund	1		1
Other, specify	1		1
Grand Total	32	2	34

Of the companies that invested in cryptocurrencies, Investment Manager A held a 10% share of the total investment in cryptocurrencies, while Investment Manager B had a share ranging from 10% to 15% (refer to Table 4.7.3). The companies had their reasons for investing in cryptocurrencies: they wanted to diversify and explore this avenue due to economic changes, and they believed cryptocurrencies were the future. Furthermore, the two investment managers who invested in cryptocurrencies intended to increase their investment in the future to further diversify their portfolios.



Table 4.7.3: Percentage shares of Total Investment in Cryptocurrencies and reasons for Investment

Type of organisation	% Share of total investment in cryptocurrencies	Reasons for the organisation to invest in cryptocurrencies
Investment Manager A	10%	Diversity and exploration due to changes in the economy
Investment Manager B	10 to 15%	Cryptocurrencies are the future

As depicted in Table 4.7.4, even though most companies were not yet exploring cryptocurrencies, there was a growing interest from clients for cryptocurrency investments. The study found that six (6) companies had customers who wanted to invest in cryptocurrencies. These companies included three (3) Investment Managers, a bank, an insurance company, and a microfinance organisation.

Table 4.7.4: FSPs with Clients interested in Cryptocurrency Investments

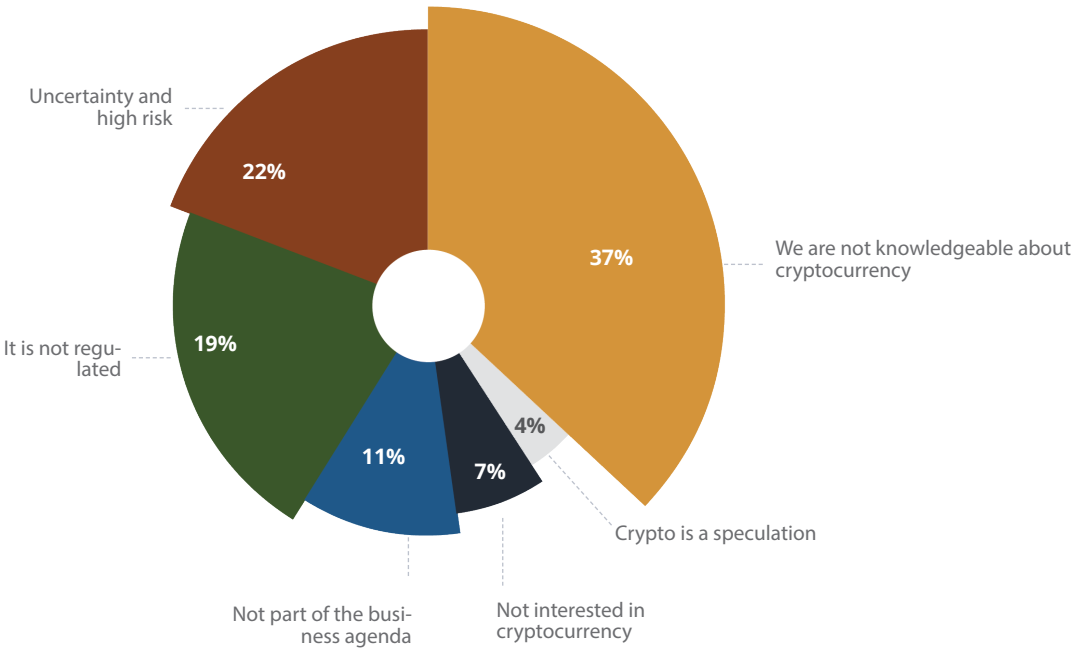
Type of financial institution	No	Yes	Grand Total
Investment company	4	3	7
Insurance	5	1	6
Microfinance	4	1	5
Bank	3	1	4
Savings and Cooperatives	3		3
Insurance Broker	2		2
Fintech	1		1
Pension and Retirement Fund	1		1
Investment Advisory Firm	1		1
Audit Firm	1		1
Insurance and Retirement Fund	1		1
Other, specify	1		1
Grand Total	27	6	33

Overall, only three (3) FSPs had intentions to invest in cryptocurrencies in the future (see Table 4.7.5). Out of the three FSPs, only one had started researching about cryptocurrency, indicating some interest to venture into this space. Reasons for the lack of interest in cryptocurrency are depicted in Figure 4.7.1. Thirty-seven (37%) indicated that they were not knowledgeable about cryptocurrencies, while 22% of the FSPs considered cryptocurrency as high risk and unpredictable due to their volatility, and 19% mentioned that cryptocurrencies are not yet regulated in the country. Only two (2) FSPs lack interest in cryptocurrencies.

Table 4.7.5: FSPs with Future Intentions to Invest in Cryptocurrencies

Type of financial institution	No	Yes	Grand Total
Insurance	6		6
Investment company	5	1	6
Microfinance	5		5
Bank	4		4
Savings and Cooperatives	3		3
Insurance Broker	2		2
Fintech		1	1
Pension Fund		1	1
Investment Advisory Firm	1		1
Audit Firm	1		1
Insurance & Retirement fund	1		1
Other, specify	1		1
Grand Total	29	3	32

Figure 4.7.1: Reasons stated by FSPs for lack of interest in Cryptocurrency Investments



The results demonstrate limited cryptocurrency acceptance, especially among FSPs in the country. Uptake was very low compared to global rollout, partly due to the lack of government regulation and reliance on the internet. However, some FSPs recognised digital assets as the future and planned to invest once regulations and security were in place. Though sceptical, the few investing companies held Bitcoin, Ethereum, and USD Coin. In summary, while cryptocurrency adoption was currently minimal locally, understanding of the potential was growing among forward-thinking FSPs.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

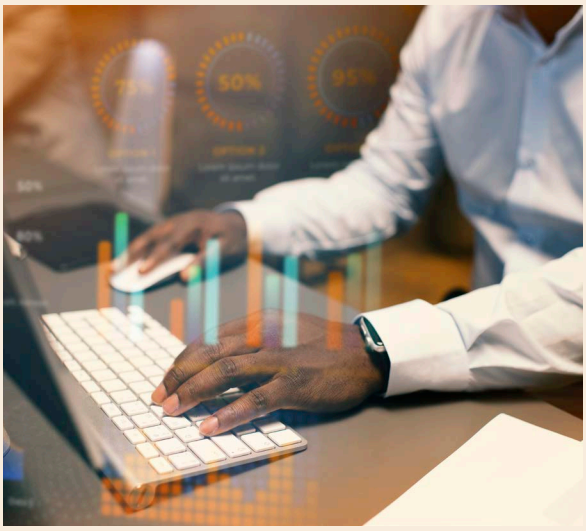
The survey findings indicate a growing awareness and ownership of cryptocurrencies in Eswatini among the surveyed population. Bitcoin emerged as the most popular cryptocurrency (55%), followed by Ethereum (10%), Binance USD (8%), USD Coin (7%), and Dogecoin (6%). Despite the significant level of cryptocurrency awareness among respondents, only 8.6% of them reported owning cryptocurrencies, and of those who were aware, 78.9% had never owned any. Among the cryptocurrency owners, the analysis revealed a profile of typically male individuals aged between 25-34 years, engaged in full-time employment, and earning a monthly income of less than E10,000.00.

Furthermore, the survey identified that 63.6% of respondents who owned cryptocurrency held cryptocurrencies valued at less than E10,000.00. A substantial portion, 48.5% and 44.7% respectively, utilised savings and monthly income for their cryptocurrency purchases. This suggests that most cryptocurrency owners were employed individuals. This trend is in alignment with findings from studies conducted in other countries, where ownership of cryptocurrencies was commonly associated with individuals possessing financial resources, such as a full-time job or savings. The survey outcomes also disclosed that a majority (60.7%) of respondents acquired their cryptocurrencies through cryptocurrency exchange platforms, while 22.4% utilised broker-dealers or third parties for their purchases. The primary reasons cited for not owning cryptocurrencies included perceived high risk (55%), inadequate knowledge about them (55%), and financial constraints (53%).

Out of the 88.1% of respondents who showed cryptocurrency awareness, the study underscored disparities between sexes, with males exhibiting higher awareness (51.6%) compared to females (36.4%). Additionally, a significant proportion (47.5%) of those aware of cryptocurrencies possessed some level of tertiary education.

Altcoin Trader accounted for the majority of traded funds, amounting to E19,080,515.96, indicating its preference among EmaSwati cryptocurrency users. By the end of 2022, the total value of funds traded by cryptocurrency owners in Eswatini had reached E22,283,664.13. These findings provide insight into the scale of cryptocurrency activities within the country during the specified period.

"The findings of this study indicate that there is growing awareness and ownership of cryptocurrencies in Eswatini among the population surveyed..."





Cryptocurrency Investor Sentiment and Risk Appetite: Disparities between sexes and Future Intentions

Risk Appetite:	Males (51.1%) were more open and willing to take on the risk of investing in cryptocurrencies compared to females (43.8%).
Market Participation:	Among cryptocurrency enthusiasts, 32.9% were willing to take advantage of market fluctuations by buying different cryptocurrencies, and 28.2% would buy more of the cryptocurrency they already held.
Caution among Holders:	Some cryptocurrency holders were cautious, with 31.4% likely to sell or spend all their cryptocurrencies and 23.5% planning to sell some of their cryptocurrencies in the next 12 months.
Future Intentions:	Despite volatility, 49% of participants intend to hold cryptocurrencies in the future, while 20% did not want to hold any, and 30% remain uncertain.
Understanding Levels:	48% of participants had a low understanding of cryptocurrencies
Reaction to Value Fall:	60% of respondents did not take any action when the value of their cryptocurrencies falls.

Social media platforms served as the primary sources of information for the majority of study participants, with 42.9% of respondents indicating that they initially learned about cryptocurrencies through platforms such as WhatsApp, Instagram, Twitter, LinkedIn, and YouTube.

Despite the uncertainties surrounding cryptocurrencies, respondents expressed a strong desire to own them in the future. In fact, 32.9% of cryptocurrency enthusiasts willing to participate in the market said they would take advantage of cryptocurrency market fluctuations by buying different cryptocurrencies, while 28.2% said they would buy more of the cryptocurrency they already owned. The main motivations for owning cryptocurrencies cited by the respondents were fear of missing out and the need to make quick money.

Despite the volatility of cryptocurrencies, 49% of the study participants expressed their intention to hold cryptocurrencies in the future, while 20% stated they would not want to hold any cryptocurrencies, and 30% remained unsure. According to the study, the levels of understanding among the 78.9% of participants who were aware of cryptocurrencies were generally low, with 48% indicating that they did not understand cryptocurrencies very well. For purchasing cryptocurrencies, most respondents used cryptocurrency exchanges such as LUNO, Altcoin Trader, Dashtrader, Timetrade, Okex, Coinbase, StashCentral, and Binance.

Data from the Central Bank of Eswatini – as reported by two (2) authorised foreign exchange dealers – provided insights into cryptocurrency transactions within the country during 2022. The majority of transactions involved funds flowing out of Eswatini to South African cryptocurrency exchanges, amounting to E21,261,647.54, with Altcoin Trader and LUNO being the most popular trading platforms. The total value of funds flowing out of the country was significantly higher than the funds coming in.

The study also confirmed that there were risks associated with investing in cryptocurrencies, as more than half (55%) of the respondents who owned cryptocurrencies had experienced scams before. However, 52.9% of cryptocurrency owners were aware of how to protect their personal keys, digital wallets, seed phrases, and other access information relating to their cryptocurrency against fraud or theft. Cryptocurrency owners demonstrated proficiency in using appropriate security tools and techniques to effectively safeguard their account information. Nevertheless, not all cryptocurrency owners possessed a comprehensive understanding of how to protect their cryptocurrencies from fraud or theft. Some participants were not employing adequate security measures, such as password-protecting all devices, using offline storage devices, and enabling two-factor authentication, to protect their cryptocurrency against fraud or theft.

Regarding ICOs, the majority of respondents (91%) were not aware of ICOs. Among the 9% who were aware, only 25.2% had invested in them. Males (68.9%) exhibited higher awareness of ICOs compared to females (31.1%). The study found that there is an interest in future ICO investments, but respondents also expressed uncertainty, indicating a need for further education and awareness to boost investor confidence. The majority of those who invested in ICOs did so with their own money or savings. While some individuals had positive returns on their investments, there is a risk of the value dropping below the original cost, which potential ICO investors should consider. The analysis further revealed that 80.4% of ICO holders had investments valued below E50,000.00.

The study assessed the prevalence of regulatory risks associated with Eswatini's population participating in the cryptocurrency market. Three key risks were identified: the absence of consumer protection, unlicensed provision of financial services, and money laundering. The survey results revealed alarming consumer protection risks, with a significant percentage of respondents falling victim to cryptocurrency-related scams. Lack of understanding about cryptocurrencies and the pursuit of quick monetary gains make consumers vulnerable to fraudulent activities. The study also highlighted the issue of unlicensed provision of financial services, indicating that some individuals may be investing on behalf of others without meeting regulatory requirements. However, the risk of money laundering through cryptocurrencies appears to be relatively low due to the KYC procedures implemented by cryptocurrency exchanges and the predominance of fiat-cryptocurrency transactions through the banking system.

Additionally, the study aimed to characterise the drivers and public perceptions on the matter to inform policy decisions. The data revealed that age, sex, education, income level, risk tolerance, experience of being scammed before, social pressures related to the fear of missing out, social media hype, cryptocurrency knowledge, and employment status were all associated with cryptocurrency ownership among the respondents. While the correlation did not necessarily prove causation, it did provide insights into the attitudes, behaviour, and perceptions of cryptocurrency investors and could serve as a guide for policymakers when making decisions about the country's cryptocurrency landscape.

The survey also found that the public perception and attitude towards cryptocurrency in Eswatini was largely negative, primarily due to a lack of awareness and education on the subject matter. Meanwhile, those who had heard of cryptocurrency often associated it with online scams. Respondents who had invested in cryptocurrencies or had more knowledge about them, on the other hand, expressed more positive attitudes toward cryptocurrency, viewing it as a potential avenue for investment. Respondents who were more educated and technologically savvy were aware of the risks and rewards of investing in cryptocurrencies. Many of them also expressed a desire to learn more and broaden their knowledge of cryptocurrencies. Respondents also expressed concerns that the Government may regulate cryptocurrency to impose taxes on cryptocurrency owners.

Finally, the survey investigated the ownership of cryptocurrency among FSPs and interest from their customers to invest in cryptocurrencies. The results of the surveyrevealed that the majority of FSPs in the country have not yet explored cryptocurrencies as an investment option. Only two (2) Investment Managers and one bank have started researching or experimenting with cryptocurrencies. Although most

companies have not ventured into cryptocurrencies, there is growing client interest in investing in them. Six (6) FSPs reported customers wanting to invest in cryptocurrencies. These FSPs include investment managers, a bank, an insurance company, and a microfinance organisation. Only three (3) FSPs expressed intentions to invest in cryptocurrencies in the future, with one investment manager already conducting research. Reasons for the lack of interest among some FSPs include a lack of knowledge, concerns about volatility, and the absence of regulatory frameworks. While cryptocurrency adoption is currently limited among FSPs, the study indicates potential future interest and investment in this space as clients seek diversification and new opportunities in the financial market. However, regulations and security measures need to be put in place to increase uptake among FSPs and build public confidence in investing in digital currencies.

These findings have important implications for policymakers in Eswatini and other countries. It is important to emphasise the need for consumer protection initiatives to safeguard investors against fraud and theft. Additionally, more education and guidance are needed to inform investors about the risks associated with investing in cryptocurrencies. Regulators ought to establish a comprehensive framework that facilitates the safe and secure trading of cryptocurrencies while ensuring adequate consumer protection. Finally, the findings from this study provide the groundwork for further research into the impact of cryptocurrencies on the economy in Eswatini and beyond.

"Only two (2) Investment Managers and one bank have started researching or experimenting with cryptocurrencies."



5.2. Recommendations

Enhance Cryptocurrency Environment in Eswatini



Legal Clarity for Businesses and Investors

- Define regulation scope, licensing requirements, and compliance.
- Recognise virtual asset service providers under existing laws.



Fostering Innovation

- Explore and leverage the underlying technology and business models of cryptocurrencies to enhance the financial sector.
- Create an innovation-friendly environment in the cryptocurrency space.

Strengthening Law Enforcement and Regulatory Capabilities

- Allocate resources to law enforcement, regulatory bodies.
- Enhance digital forensics capabilities.
- Promote information sharing among relevant authorities.





Informed and Balanced Policies

- Monitor local cryptocurrency space for informed policy development.
- Keep pace with innovations while managing risks.

Empower Through Education



Launch public education campaigns.



Use social media for widespread knowledge dissemination.

Risk-Based Regulatory Approach

Identify and assess inherent risks in the cryptocurrency landscape.

Focus on consumer protection and unlicensed financial providers.





Clear and Consistent Regulations

- Develop precise regulations for cryptocurrency usage.
- Offer guidance to businesses and investors.

Licensing for Consumer Protection

- Implement licensing system for cryptocurrency service providers.
- Set criteria for legitimacy and consumer accountability.

FSPs and Innovation

- Train employees to leverage cryptocurrency and blockchain tech.
- Explore innovative solutions to enhance products and services.



Consumers Informed Investment Decisions

- Research cryptocurrencies before investing.
- Be cautious of scams and guaranteed returns.
- Seek advice from qualified financial advisors.

Based on the findings, the following recommendations are proposed to address the identified risks and promote a safer cryptocurrency environment in Eswatini:

- The Government of Eswatini should provide legal clarity for businesses and investors by defining the scope of regulation, licensing requirements, and compliance. Virtual asset service providers are listed as accountable institutions under the Money Laundering and Financing of Terrorism (Prevention) Act 2016 (as amended). These include a virtual currency exchange that offers exchange or custodial services for cryptocurrencies; and the issuance of cryptocurrency whether or not cryptocurrency is pegged in value to a reserve asset, cryptocurrency, fiat money, or exchange traded commodities.
- The Government of Eswatini should create an environment that fosters innovation in the financial technology space.
- The Government of Eswatini should allocate adequate resources and expertise to law enforcement agencies, the financial intelligence unit, and regulatory bodies to strengthen their capabilities in detecting, investigating, and prosecuting cryptocurrency related crimes. This includes enhancing digital forensics capabilities and promoting information sharing between relevant authorities.
- The Government of Eswatini should monitor the development of the local cryptocurrency space to inform balanced, evidence-based policies that keep pace with innovations and manage risks.
- The Government of Eswatini and financial services regulators can empower individuals to make informed decisions and protect themselves from scams and fraudulent schemes. This could be done through public education campaigns. Information could be disseminated via social media platforms to increase the level of knowledge and understanding of cryptocurrencies among the population.
- Financial service regulators should adopt a risk-based approach in developing a regulatory framework for cryptocurrencies. This means that the regulators must identify, assess, and understand the risks inherent in the emergence of cryptocurrency or blockchain technology. The survey found that the current cryptocurrency landscape in Eswatini poses significant regulatory risks, particularly in the areas of consumer protection and unlicensed financial services. The absence of a legislative or regulatory framework for cryptocurrencies exacerbates these risks and leaves consumers exposed to fraudulent schemes.
- Financial service regulators should develop and implement clear and consistent regulations and legislation regarding the use of cryptocurrencies. This would provide clear guidance and certainty to cryptocurrency businesses and investors.
- Financial service regulators should consider implementing a licensing or registration system for cryptocurrency service providers to ensure consumer protection and encourage participation in cryptocurrencies through legal means. This would require service providers to meet certain criteria and adhere to specific guidelines, which would help ensure their legitimacy and accountability to consumers.
- Financial Service Providers should invest in training and developing employees to understand and leverage the potential of cryptocurrency and blockchain technology. They should prioritise innovation

and explore the underlying technologies and business models of cryptocurrencies. Moreover, FSPs should invest in research and development to identify areas where they can leverage blockchain technology and other innovative solutions to improve their products and services. By doing so, FSPs can enhance value for their customers and stay competitive in an increasingly digital world.

- To minimise risks and make informed investment decisions, consumers should conduct thorough research on different cryptocurrencies before investing and understand their risk exposure. They should be cautious of scam and fraudulent schemes and avoid investments that promise guaranteed returns or sound too good to be true. Lastly, consumers should consider seeking advice from a qualified financial advisor with knowledge of cryptocurrencies if uncertain about entering the market or needing guidance.



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Annex 1: Results of Pearson's Correlation to determine the Association between the Variables influencing Cryptocurrency Investment

Correlations

		Cryptocurrency Ownership	Sex	Education	Employment status	Risk tolerance	Scammed before	Income level	Crypto knowledge	Age	Social pressure _Gamble	Social pressure_ social media hype	Social pressure_ Fear of missing out
Cryptocurrency Ownership	Pearson Correlation	1	.088**	.212**	.002	.411**	.622**	.154**	.180**	.042**	.360**	.367**	.529**
	Sig. (2-tailed)		.000	.000	.878	.000	.000	.000	.000	.004	.000	.000	.000
	N	4591	4591	4538	4539	4591	4591	4528	4591	4566	4591	4591	4591
Sex	Pearson Correlation	.088**	1	-.003	-.001	.055**	.042**	.055**	.065**	.019	.056**	.053**	.015
	Sig. (2-tailed)	.000		.826	.954	.000	.005	.000	.000	.194	.000	.000	.308
	N	4591	4591	4538	4539	4591	4591	4528	4591	4566	4591	4591	4591
Education	Pearson Correlation	.212**	-.003	1	-.092**	.151**	.109**	.362**	.221**	.071**	.039**	.100**	.129**
	Sig. (2-tailed)	.000	.826		.000	.000	.000	.000	.000	.000	.008	.000	.000
	N	4538	4538	4538	4538	4538	4538	4527	4538	4535	4538	4538	4538
Employment_ status	Pearson Correlation	.002	-.001	-.092**	1	-.004	-.001	.025	-.022	.007	.020	-.011	-.009
	Sig. (2-tailed)	.878	.954	.000		.763	.934	.097	.141	.632	.170	.465	.559
	N	4539	4539	4538	4539	4539	4539	4528	4539	4536	4539	4539	4539
Risk tolerance	Pearson Correlation	.411**	.055**	.151**	-.004	1	.214**	.144**	.074**	.024	.043**	.095**	.137**
	Sig. (2-tailed)	.000	.000	.000	.763		.000	.000	.000	.111	.004	.000	.000
	N	4591	4591	4538	4539	4591	4591	4528	4591	4566	4591	4591	4591
Scammed before	Pearson Correlation	.622**	.042**	.109**	-.001	.214**	1	.079**	.112**	.071**	.233**	.217**	.311**
	Sig. (2-tailed)	.000	.005	.000	.934	.000		.000	.000	.000	.000	.000	.000
	N	4591	4591	4538	4539	4591	4591	4528	4591	4566	4591	4591	4591
Income level	Pearson Correlation	.154**	.055**	.362**	.025	.144**	.079**	1	.112**	.310**	.039**	.071**	.062**
	Sig. (2-tailed)	.000	.000	.000	.097	.000	.000		.000	.000	.009	.000	.000
	N	4528	4528	4527	4528	4528	4528	4528	4528	4525	4528	4528	4528
Crypto knowledge	Pearson Correlation	.180**	.065**	.221**	-.022	.074**	.112**	.112**	1	-.066**	.065**	.066**	.095**
	Sig. (2-tailed)	.000	.000	.000	.141	.000	.000	.000		.000	.000	.000	.000
	N	4591	4591	4538	4539	4591	4591	4528	4591	4566	4591	4591	4591
Age	Pearson Correlation	.042**	.019	.071**	.007	.024	.071**	.310**	-.066**	1	-.019	-.011	-.005
	Sig. (2-tailed)	.004	.194	.000	.632	.111	.000	.000	.000		.196	.444	.753
	N	4566	4566	4535	4536	4566	4566	4525	4566	4566	4566	4566	4566

Social pressure Gamble	Pearson Correlation	.360**	.056**	.039**	.020	.043**	.233**	.039**	.065**	-.019	1	.101**	.311**
	Sig. (2-tailed)	.000	.000	.008	.170	.004	.000	.009	.000	.196		.000	.000
	N	4591	4591	4538	4539	4591	4591	4528	4591	4566	4591	4591	4591
Social pressure social media hype	Pearson Correlation	.367**	.053**	.100**	-.011	.095**	.217**	.071**	.066**	-.011	.101**	1	.179**
	Sig. (2-tailed)	.000	.000	.000	.465	.000	.000	.000	.000	.444	.000		.000
	N	4591	4591	4538	4539	4591	4591	4528	4591	4566	4591	4591	4591
Social pressure Fear of missing out	Pearson Correlation	.529**	.015	.129**	-.009	.137**	.311**	.062**	.095**	-.005	.311**	.179**	1
	Sig. (2-tailed)	.000	.308	.000	.559	.000	.000	.000	.000	.753	.000	.000	
	N	4591	4591	4538	4539	4591	4591	4528	4591	4566	4591	4591	4591
**. Correlation is significant at the 0.01 level (2-tailed).													



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