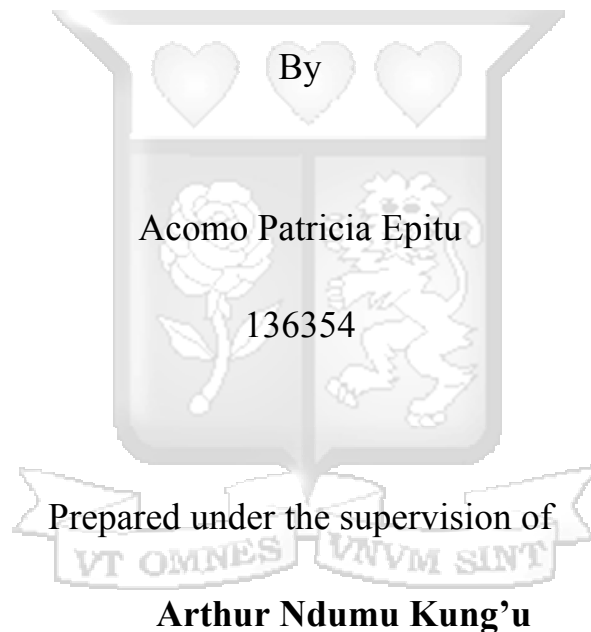


**EXPLORING CRYPTOCURRENCY AS AN ASSET: CAN
CRYPTOCURRENCY BE INHERITED?**

Submitted in partial fulfilment of the requirements of the Bachelor of Laws
Degree, Strathmore University Law School



January 2024

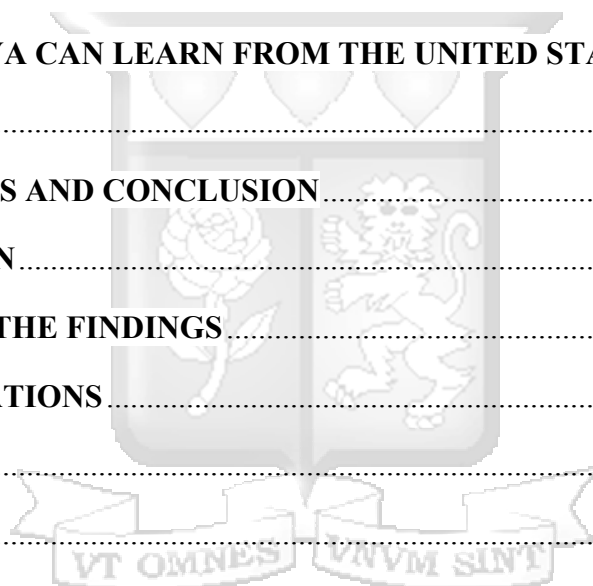
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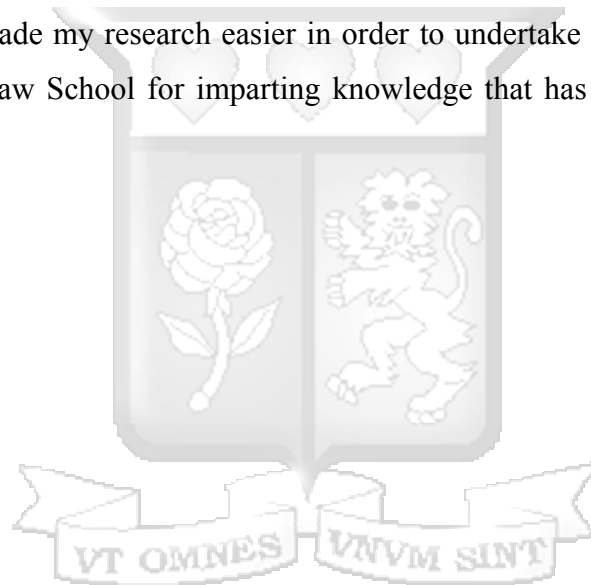
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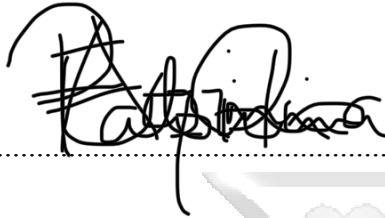
I would like to acknowledge the Almighty God for being there for me during the entire dissertation writing process and for giving me the perseverance to finish the work. I have to admit that working on this project has been a demanding but rewarding experience, and I am grateful that God has seen me through all of the ups and downs. In addition, I would like to sincerely thank my supervisor, Mr. Arthur Ndumu Kung'u, for all of his assistance and guidance. His understanding and knowledge made it very easy to bounce ideas off of him regarding how to present this dissertation. I am also extremely grateful to my family, who encouraged me along the entire writing process and were always there for me. I am also grateful to Hezekiah Mubiru for his assistance during the writing process. His knowledge and expertise in the areas of cryptocurrency and law of succession made my research easier in order to undertake this project. Finally, I am grateful to Strathmore Law School for imparting knowledge that has shaped the course of my education.



DECLARATION

I, ACOMO PATRICIA EPITU, do hereby declare that this research is my original work and that to the best of my knowledge and belief, it has not been previously, in its entirety or part, been submitted to any other university for a degree or diploma. Other works cited or referred to are accordingly acknowledged.

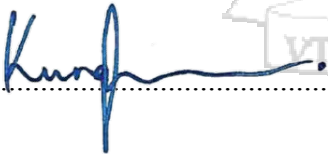
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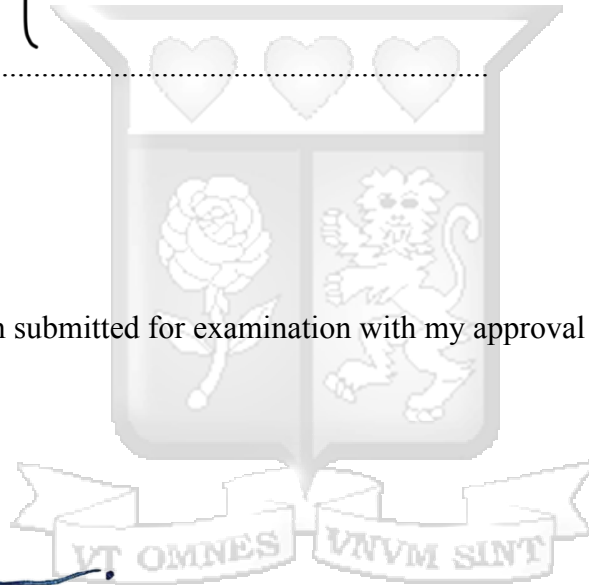
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This dissertation has been submitted for examination with my approval as University Supervisor.

Signed:



Arthur Ndumu Kung'u



ABSTRACT

The investment in and ownership of cryptocurrencies has become an emerging trend around the world especially in Kenya. Despite this, cryptocurrencies are not recognized or regulated under Kenyan law. As a result of this, a good number of Kenyans that consider cryptocurrencies as property are uncertain of what happens to their cryptocurrencies when they pass on. In addition to this, their beneficiaries are left stranded as to how to claim cryptoassets upon the death of the owners of the cryptoassets.

This study discusses whether cryptocurrencies can be defined as legal property. It finds that cryptocurrency can indeed be defined as legal property. The study also considers the idea of creating a new separate category of property for cryptocurrencies that will encompass all of its unique features.

The study employs the use of a qualitative research to examine the current legal framework of Kenya regarding the inheritance of cryptocurrencies. It finds that the current status of cryptocurrencies and their inheritance is not defined under the Kenyan legal framework.

The study goes further to discuss whether Kenya should establish a legal framework that governs the inheritance of cryptocurrencies. It employs the use of a comparative analysis of the legal framework of the United States of America (USA) regarding the inheritance of cryptocurrencies to recommend that Kenya establishes a legal framework that governs the inheritance of cryptocurrencies.

In order to establish this legal framework, the Kenyan government needs to tackle the issue of defining cryptocurrencies within the realm of property.

LIST OF ABBREVIATIONS

ATM- Automated Teller Machine

BAK- Blockchain Association of Kenya

BTC- Bitcoin

BTCST- Bitcoin Savings and Trust

CBDC – Central Bank Digital Currency

CBK- Central Bank of Kenya

CDA- Central Depositories Act

CDSC- Central Depositories and Settlements Corporation

DApps- Decentralised Applications

DeFi- Decentralised Finance

FAQs- Frequently Asked Questions

ICOs- Initial Coin Offerings

IPOs- Initial Public Offerings

KRA- Kenya Revenue Authority

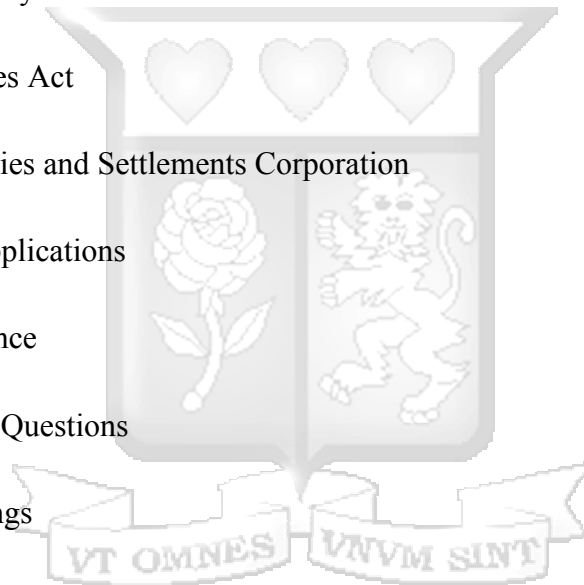
LTC- Litecoin

NFTs- Non-Fungible Tokens

UKLC- United Kingdom Law Commission

UNCTAD- United Nations Conference on Trade and Development

USA- United States of America



LIST OF CASES

B2C2 Ltd v Quoine Pte Ltd [2019], Singapore International Commercial Court

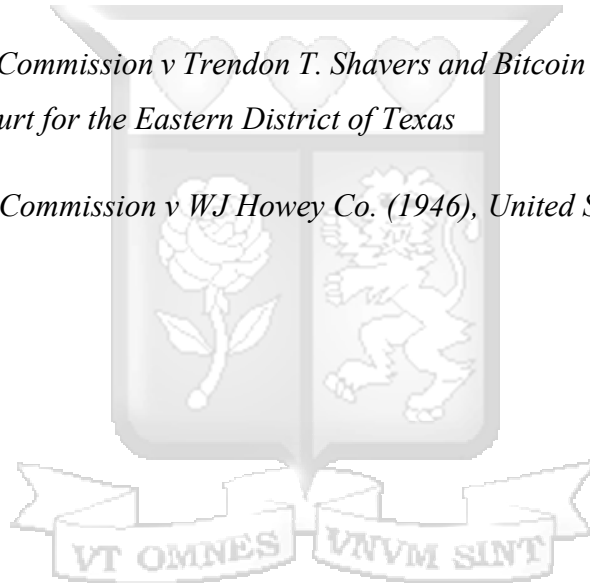
In the Matter of the Estate of Ricardo Alberto Serrano (2017), Surrogate's Court, New York County

Mellinger v City of Houston [1887], The Supreme Court of Texas

National Provincial Bank v Ainsworth [1965], United Kingdom House of Lords

Securities and Exchange Commission v Trendon T. Shavers and Bitcoin Savings and Trust (2014), United States District Court for the Eastern District of Texas

Securities and Exchange Commission v WJ Howey Co. (1946), United States Supreme Court



LIST OF LEGAL INSTRUMENTS

Kenyan Legal Instruments

Central Bank of Kenya Act (Act No. 15 of 1966)

Central Depositories Act (Act No. 4 of 2000)

Finance Act (Act No. 4 of 2023)

Income Tax Act (Act No. 16 of 1973)

Insolvency Act (Act No. 8 of 2015)

Law of Succession Act (Act No. 14 of 1972)

Proceeds of Crime and Anti Money Laundering Act (Act No. 9 of 2009)

Foreign Legal Instruments

Financial Advisory and Financial Intermediary Services Act (Act No. 37 of 2002, Republic of South Africa)

Internal Revenue Service Notice 2014-21 (United States of America)

Revised Uniform Fiduciary Access to Digital Assets Act (Chapter 25, United States of America)

Securities Exchange Act of 1934 (Chapter 404, United States of America)

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.0. BACKGROUND

With the rapid advancement of technology, digital assets have become an integral part of daily life for many people.¹ A digital asset is defined as a kind of digital material that has been formatted into a binary source and includes the right to use it.² They are considered intangible assets and are long lasting and reusable.³ Traditionally, digital assets were considered to be photographs, audios, videos, and other written material available on the internet, however, since 2009, the concept of digital assets has been expanded to include virtual currencies such as bitcoin, Ethereum, Litecoin and so on.⁴

A virtual currency has been defined as a digital unit that is used for exchange but is not backed by the government-issued legal tender.⁵ It is stored and transacted through software and mobile or computer applications that are designated to carry out that function.⁶ The creation of a virtual currency happens through a process called “mining” which involves validating transactions on the platform and adding them to a public ledger called a blockchain.⁷ This ledger is accessible to the public and through it, the new currency known as cryptocurrency is released.⁸ The value of a virtual

¹ Toygar A, Taipei Rohm Jr CE and Zhu J, ‘A new asset type: Digital assets’ 22 *Journal of International Technology and Information Management* 4, 2013, 113.

² Toygar et al, ‘A new asset type’, 113.

³ Toygar et al, ‘A new asset type’, 113.

⁴ Frankenfield J, ‘Digital assets’ Investopedia, 30 June 2022 <https://www.investopedia.com/terms/d/digital-asset-framework.asp> on 30 June 2022.

⁵ Trautman L, ‘Virtual currencies; Bitcoin & what now after liberty reserve, silk road, and Mt. Gox?’ 22 *Richmond Journal of Law and Technology* 4, 2014, 3.

⁶ Frankenfield J, ‘Virtual currency: Definition, types, advantages & disadvantages’ Investopedia, 24 March 2022 <https://www.investopedia.com/terms/v/virtual-currency.asp#:~:text=A%20virtual%20currency%20is%20a,networks%20or%20over%20the%20Internet.> on 24 March 2022.

⁷ Arora S, ‘What is bitcoin mining? How does it work, proof of work and facts you should know’ Simplilearn, 18 November 2018 <https://www.simplilearn.com/bitcoin-mining-explained-article#what-is-crypto-mining> on 18 November 2018.

⁸ Arora S, ‘What is bitcoin mining? How does it work, proof of work and facts you should know’ Simplilearn, 18 November 2018 <https://www.simplilearn.com/bitcoin-mining-explained-article#what-is-crypto-mining> on 18 November 2018.

currency is based on the trust that users have in it, as well as, its security got from its limited nature and the mining process through which additional units are generated into circulation.⁹

The trend of investing in cryptocurrency has grown over the last ten years with the launch of bitcoin onto the world center stage,¹⁰ with more and more people starting to use cryptocurrencies for their transactional activities.¹¹ There are also more people choosing to consider cryptocurrency as an asset and are trying to understand how to invest in it.¹² As more and more people are investing in cryptocurrencies, the question has arisen as to what happens to the cryptocurrency upon the death of its owner.¹³ An example is the death of Gerald Cotten, a Canadian founder of a cryptocurrency investment company, who suddenly died, leaving no access to about \$180 million in bitcoin and digital assets.¹⁴

Kenya has not escaped the wave of investing in cryptocurrency that has swept across the globe.¹⁵ A report by the United Nations Conference on Trade and Development (UNCTAD), estimates that 4.25 million Kenyans, or about 8.5 percent of the total population, have invested in and own cryptocurrency.¹⁶ The Central Bank of Kenya recently announced that it will consider forming a working group to look into cryptocurrencies and their use among the Kenyan population,¹⁷ after previously warning against their use as they are not considered legal tender in Kenya.¹⁸ With an

⁹ Turpin JB, 'Bitcoin: The economic case for a global virtual currency operating in an unexplored legal framework' 21 *Indiana Journal of Global Legal Studies* 1, 2014, 335-338.

¹⁰ <https://guardian.ng/technology/tech/the-idea-and-a-brief-history-of-cryptocurrencies/> on 26 December 2021.

¹¹ DeVries PD, 'An analysis of cryptocurrency, bitcoin and the future' 1 *International Journal of Business Management and Commerce* 2, 2016, 1-2.

¹² Inci AC and Lagasse R, 'Cryptocurrencies: applications and investment opportunities' 9 *Journal of Capital Markets Studies* 2, 2019, 98.

¹³ Rosochowska K, 'What is a crypto asset?' Burness Paull, 21 June 2019 <https://www.burnesspaull.com/insights-and-events/news/what-is-a-crypto-asset> on 21 June 2019.

¹⁴ MacDonald M, 'Details emerging about Gerald Cotten, the young founder of QuadrigaCX', 8 February 2019 <https://toronto.ctvnews.ca/details-emerging-about-gerald-cotten-the-young-founder-of-quadrigacx-1.4288288#:~:text=Gerald%20Cotten%2C%20a%20Nova%20Scotia,Bitcoins%20and%20other%20digital%20asset s.> on 8 February 2019.

¹⁵ Elmendorp R, 'Cryptocurrency booming among Kenyan farmers' VOA Africa, 26 July 2021, <https://www.voanews.com/a/africa-cryptocurrency-booming-among-kenyan-farmers/6208732.html> on 26 July 2021.

¹⁶ UNCTAD Policy Brief No. 100, *All that glitters is not gold: The high cost of leaving cryptocurrencies unregulated.*, June 2022, 2.

¹⁷ Omondi D, 'CBK softens stance on cryptocurrency, considers regulation.' Business Daily, 16 December 2022 <https://www.businessdailyafrica.com/bd/economy/cbk-softens-stance-on-crypto-considers-regulation-4057520#:~:text=CBK%20governor%20Patrick%20Njoroge%20has.system%20or%20cutting%20transaction%20costs> on 16 December 2022.

¹⁸ <https://www.theeastafrican.co.ke/tea/business/kenya-s-central-bank-warns-of-risks-in-cryptos-3756272> on 22 March 2022.

increasing number of Kenyans investing in cryptocurrency, the question of what happens to these assets upon death of their owner has become a concern.¹⁹ This is a matter that Kenyan authorities should begin to address in due time especially as countries like China have begun to enact legislation regarding succession of cryptocurrencies upon death.²⁰ This comes into play especially as there is great debate as to whether cryptocurrency is considered to be a currency or an asset.²¹

1.1. STATEMENT OF THE PROBLEM

The emergence of cryptocurrency has had a significant impact on the world at large, disrupting traditional financial systems. Currently, in Kenya, there is no law governing cryptocurrency and its use despite the fact that more and more people are using cryptocurrency to acquire property, carry out day-to-day activities, and essentially, they are beginning to consider it as property. Thus, there is a need to deal with what happens to one's cryptocurrency after one's death. This study, thus, will seek to exhibit whether it is appropriate for Kenya to establish clear and comprehensive frameworks for cryptocurrency inheritance.

1.2. RESEARCH OBJECTIVES

1. To determine if cryptocurrency can be defined as legal property.
2. To examine the current status regarding the inheritance of cryptocurrencies in Kenya.
3. To determine if Kenya should establish a legal framework to govern the inheritance of cryptocurrencies.

1.3. RESEARCH QUESTIONS

1. Can cryptocurrency be defined as legal property?

¹⁹ Anjarwalla A and Doshi MK, 'Leaving a legacy of your digital footprint' Mondaq, 7 May 2019 <https://www.mondaq.com/fin-tech/803704/leaving-a-legacy-of-your-digital-footprint?> on 7 May 2019.

²⁰ Peng T, 'Chinese citizens are now able to inherit cryptocurrency' Cointelegraph, 28 May 2020 <https://cointelegraph.com/news/chinese-citizens-are-now-able-to-inherit-cryptocurrency> on 28 May 2020.

²¹ Powers WA, 'Is crypto a security or commodity? Look to Congress' ethics rules' Bloomberg Tax, 12 July 2022 <https://news.bloombergtax.com/crypto/is-crypto-a-security-or-commodity-look-to-congress-ethics-rules> on 14 July 2022.

2. What is the current status regarding the inheritance of cryptocurrencies in Kenya?
3. Should Kenya establish a legal framework to govern the inheritance of cryptocurrencies?

1.4. HYPOTHESIS

The lack of clear legal guidelines for cryptocurrency inheritance creates uncertainty and challenges for fiduciaries, heirs, and the legal system, leading to potential losses, disputes, and inefficiencies. By establishing clear legal frameworks, individuals can make informed decisions about their digital assets, heirs can confidently claim their inheritance, and the legal system can effectively handle cryptocurrency inheritance matters. Thus, the hypothesis of this study is that the establishment of clear and comprehensive legal frameworks for cryptocurrency inheritance in Kenya will significantly reduce the risk of lost or inaccessible cryptocurrency assets, promote responsible digital asset ownership, and support the growth and stability of the cryptocurrency industry.

1.5. JUSTIFICATION

Cryptocurrency ownership and investment has been increasing in Kenya. However, there is uncertainty among many people about what happens to their cryptocurrency after they die. Additionally, there is no legal remedy available in Kenya to help heirs or relatives access the cryptocurrency of a deceased person. This can leave beneficiaries stranded, as cryptocurrency assets could be useful to them after the owner's death. This study is important as it will contribute to the literature on the inheritance of cryptocurrency and its regulation in Kenya. Thus, it will aid researchers in the field of cryptocurrency on how it can be regulated when it comes to inheritance. Currently, the existing literature in Kenya on cryptocurrency has been limited to examining and arguing for regulation of cryptocurrency in terms of taxation and preventing cybercrimes related to cryptocurrency. This study will also aid law makers on how to draft suitable laws and policies to govern cryptocurrency and how they can be inherited. This study will also be helpful to judges as it will shed light on how to handle cases dealing with cryptocurrency, more so inheritance cases.

1.6. THEORETICAL FRAMEWORK: THE NATURAL LAW THEORY OF PROPERTY RIGHTS

This study will be premised on the natural law theory of property rights. The natural law theory of property rights is a philosophical concept that suggests that the right to own property is a fundamental and inherent aspect of human nature.²² According to this theory, property rights are not created by governments or other human institutions, but are instead derived from natural law, which is the set of universal principles that govern human behaviour and relationships.²³ This theory was first posited by John Locke in his book, ‘Two Treatises of Government’ and it asserts that individuals have the inherent right to own property as it is essential for them to exercise their natural rights to life, liberty, and pursuit of happiness.²⁴

Under the natural law theory of property rights, property ownership is seen as a means of promoting individual freedom and autonomy.²⁵ Property owners have the right to use and dispose of their property as they see fit, without interference from others or from the government.²⁶ However, this right is not absolute, and property owners are expected to use their property in a way that does not harm others or infringe on their rights.²⁷

According to Locke's natural law theory of property rights, government exists to protect the rights of individuals, including their right to acquire and possess property.²⁸ The legitimacy of government is based on its ability to safeguard these natural rights, including property rights.²⁹ When people come together to form a government, they do so to better protect their natural rights, and the government's legitimacy depends on its success in doing so.³⁰ However, if the government fails to protect property rights or violates them, it undermines its own legitimacy and loses the

²² Hurtubise MJ, ‘Philosophy of natural rights according to John Locke’ Published MA Thesis, Loyola University, Chicago, 1952, 44.

²³ Esperanza JG, ‘John Locke and the natural law. Yesterday and today: A critical analysis’ Published PHD Thesis, University of Navarra, Pamplona, 2006, 76.

²⁴ Bracken JA, ‘A theory of property according to John Locke’ Published MA Thesis, Loyola University, Chicago, 1960, 4.

²⁵ Hurtubise MJ, ‘Philosophy of natural rights according to John Locke’, 37.

²⁶ Brubaker SC, ‘Coming into one’s own: John Locke’s theory of property, God, and politics’ 74 *The Review of Politics* 2, 2012, 217.

²⁷ Brubaker SC, ‘Coming into one’s own: John Locke’s theory of property, God, and politics’, 218.

²⁸ Snyder DC, ‘Locke on natural law and property rights’ 16 *Canadian Journal of Philosophy* 4, 1986, 725.

²⁹ Snyder DC, ‘Locke on natural law and property rights’, 725.

³⁰ Kmiec DW, ‘The coherence of the natural law of property’ 26 *Valparaiso University Law Review* 1, 1991, 372.

consent of the governed.³¹ Property ownership is an essential part of individual freedom and autonomy, and if the government violates these rights, it is seen as violating the natural rights of individuals, which in turn, undermines the legitimacy of the government itself.³²

This theory is key in analysing cryptocurrency and its inheritable nature. The natural law theory of property rights applies to all forms of property that can be owned and used by individuals, including cryptocurrency.³³ Individuals have the right to own and use their property, including cryptocurrency, without interference from others or the government, subject to limitations such as laws and regulations that protect public safety and prevent fraud.³⁴ Inheritance is a fundamental aspect of property ownership and individuals have the right to pass on their cryptocurrency to their heirs or beneficiaries upon their death, just as they would with any other form of property.³⁵ As previously stated, this theory provides that part of the government's obligations to the people is to protect their natural rights which includes property rights. That being said, the government is obligated to ensure that cryptocurrency as a form of property is catered for under the Kenyan legal framework. This includes enacting legislation that focuses on the inheritance of cryptocurrency.

1.7. LITERATURE REVIEW

So far, the existing literature on the regulation of cryptocurrency has been focused more on regulation in terms of taxation.³⁶ Although Nyikuli has touched on succession of cryptocurrency in Kenya in his paper,³⁷ the claim made there was inadequate. Nyikuli's claim mainly touched on how the succession laws in Kenya are inadequate and ill-equipped to handle inheritance matters of a digital nature.³⁸ He briefly touched on how cryptocurrencies are considered to be securities in the USA and currency in Japan, thus they have furthered dialogue on succession matters in this

³¹ Kmiec DW, 'The coherence of the natural law of property', 386.

³² Kmiec DW, 'The coherence of the natural law of property', 386.

³³ Rueckert C, 'Cryptocurrencies and fundamental rights' 5 *Journal of Cybersecurity* 1, 2019, 5.

³⁴ Sarel R, 'Property rights in cryptocurrency: A law and economic perspective' 22 *North Carolina Journal of Law and Technology* 3, 2021, 428-430.

³⁵ Kharitonova JS, 'Digital assets and digital inheritance' 1 *Law & Digital Technologies* 1, 2021, 5.

³⁶ See for example: Waihenya WJ, 'Decoding the dilemma of cryptocurrency regulation in Kenya' Published LLM Thesis, University of Nairobi, Nairobi, 2020.

³⁷ Nyikuli EO, 'Exploring financial inclusion in Kenya through cryptocurrencies: a case for a regulatory framework' Published LLM, Strathmore University, Nairobi, 2021, 66.

³⁸ Nyikuli EO, 'Exploring financial inclusion in Kenya through cryptocurrencies: a case for a regulatory framework', 53-55.

regard.³⁹ He did not delve further into what mechanisms can be put in place to handle matters of a digital nature such as cryptocurrencies. In their study, Miriti and Nekesa note that there is a need for regulation of cryptocurrency in terms of taxation in Kenya.⁴⁰ They further noted that cryptocurrency is an intangible asset and there needs to be a legal framework created by the Government of Kenya that caters to the taxation of cryptocurrency.⁴¹ Equally, Kamau observes that there are few trustworthy, cost-effective applications of cryptocurrencies and most of them have minimal adoption.⁴² He further adds that the government needs to adopt a legal framework that caters to cryptocurrency and combating its issues with tax and cybercrimes.⁴³ Nthenya suggests that a tax collection programme referred to as “surrogate presumptive collection” be adopted to collect taxes imposed on cryptocurrencies.⁴⁴ He contends that in order for this to function, businesses which accept cryptocurrencies as payment must act as a proxy and are required to collect and remit a unique cryptocurrency-transaction tax that is calculated as a percentage of the gross value of each cryptocurrency payment.⁴⁵

1.7.1. On cryptocurrency as an investment asset

There are numerous views on how cryptocurrency can be classified as an investment asset. Most of these views are focused on its volatility and viability as compared to traditional investment assets such as stocks.

As observed by Chuen et al, what makes cryptocurrency like bitcoin special is that it uses a public ledger known as a block chain that records all the transactions and makes them verifiable.⁴⁶ They further note that cryptocurrency can be a very good alternative investment as opposed to the

³⁹ Nyikuli EO, ‘Exploring financial inclusion in Kenya through cryptocurrencies: a case for a regulatory framework’, 66.

⁴⁰ Miriti NK and Nekesa M, ‘The level of deepening and classification of cryptocurrency transactions and taxation in Kenya’ 4 *African Tax and Customs Review* 1, 2021, 92.

⁴¹ Miriti NK and Nekesa M, ‘The level of deepening and classification of cryptocurrency transactions and taxation in Kenya’, 92.

⁴² Kamau CG, ‘The cryptocurrency market in Kenya: A review of the awareness and participation by the youth’ 12 *Journal of Asian Business Strategy* 1, 2022, 50.

⁴³ Kamau CG, ‘The cryptocurrency market in Kenya’, 56.

⁴⁴ Nthenya JK, ‘Taxation of cryptocurrencies in Kenya and its effect on the country’s monetary sovereignty’ Social Science Research Network, 2022, 10.

⁴⁵ Nthenya JK, ‘Taxation of cryptocurrencies in Kenya and its effect on the country’s monetary sovereignty’ Social Science Research Network, 2022, 10.

⁴⁶ Chuen DLK, Guo L and Wang Y, ‘Cryptocurrency: A new investment?’ 20 *Journal of Alternative Investments* 3, 2018, 4.

traditional investment assets as it has high returns and it brings diversification to the traditional investment assets.⁴⁷ On the other hand, Andrianto and Diputra have noted that cryptocurrency, though lucrative as an investment asset, is very volatile and risky due to its price and fluctuations being difficult to determine.⁴⁸

Additionally, Inci and Lagasse note that during the 2010s era from 2010 to 2019, cryptocurrencies generated higher daily returns than traditional assets.⁴⁹ They go on to posit that the addition of cryptocurrency to the optimal portfolio can greatly achieve a better return-and-risk combination.⁵⁰ The higher returns make cryptocurrencies an attractive investment option.

Seng et al argue that the launch of the Bitcoin futures market in December 2017 demonstrates the growth and evolutionary nature of the cryptocurrency market.⁵¹ They suggest that the futures market offers investors the opportunity to invest and hedge positions, indicating that it is a more mature market.⁵² However, the authors also note that futures markets can contribute to increased market volatility and sentiment due to speculation about price movements. Still, they say, the existence of a futures market suggests that cryptocurrencies are an important enough asset class to justify such financial instruments, further highlighting the long-term viability of cryptocurrencies.⁵³

Though Altinoz and Sonkurt note the investment opportunities associated with cryptocurrency, they also note higher rates of pathological trading in relation to gambling among people that invest in cryptocurrency as compared to traditional assets such as stocks.⁵⁴ Adding onto this, Lin and Nestacorva highlight the regulatory uncertainty of cryptocurrencies as there is a wide gap in the

⁴⁷ Chuen et al, 'Cryptocurrency: A new investment?', 7.

⁴⁸ Andrianto Y and Diputra Y, 'The effect of cryptocurrency on investment portfolio effectiveness' 5 *Journal of Finance and Accounting* 6, 2017, 229.

⁴⁹ Inci AC and Lagasse R, 'Cryptocurrencies: applications and investment opportunities', 111.

⁵⁰ Inci AC and Lagasse R, 'Cryptocurrencies: applications and investment opportunities', 111.

⁵¹ Seng WW, Silver DD and Saerbeck D, 'Cryptocurrency: A new investment opportunity? An investigation of the hedging capability of cryptocurrencies and their influence on stock, gold and bond portfolios' Social Science Research Network, 2018, 3.

⁵² Seng et al, 'Cryptocurrency: A new investment opportunity?', 3.

⁵³ Seng et al, 'Cryptocurrency: A new investment opportunity?', 3.

⁵⁴ Altinoz AE and Sonkurt HO, 'Cryptocurrency investment: A safe venture or a new type of gambling?' 47 *Journal of Gambling Issues* 8, 2021, 210.

regulatory framework of most jurisdictions.⁵⁵ Because of this, there is no certainty of protection for investors from fraud and scams.

All in all, cryptocurrencies, though highly lucrative and innovative compared to the traditional investment assets, have many risks that one must take notice of when choosing to invest in them.

1.7.2. The inheritable nature of cryptocurrency.

According to Omelchuk et al, cryptocurrency is capable of being inherited, however, its legal status needs to be established in order to determine the rules for inheriting it.⁵⁶ They further argue that for this to happen, the unique characteristics of cryptocurrencies as opposed to traditional assets needs to be taken into account.⁵⁷

Kharitonova also posits that cryptocurrencies as digital assets can be inherited. She further notes that for this to happen, the intellectual property law, privacy regulations, and personal data protection all have to be taken into account.⁵⁸ This is to take into consideration the issue of digital assets inclusive of cryptocurrency as objects of subjective rights that are for different purposes.⁵⁹

Mali and Aswathy also argue that cryptocurrencies along with other digital assets can indeed be inherited. They, however, note that taking the steps to incorporate cryptocurrencies into one's will may be seen as practical but it does not take into account the possibility that the terms and conditions of the cryptocurrency platform may not allow the transfer to the heirs of the deceased.⁶⁰ They, like other scholars such as Kharitonova, argue that the current succession laws are not adequate to cater for digital assets such as cryptocurrency and thus push for effective legal efforts from statutory authorities across the globe that cater for posthumous disposition of cryptocurrencies and digital assets as a whole.⁶¹

⁵⁵ Lin L and Nestacorva D, 'Venture capital in the rise of crypto economy: Problems and prospects' 16 *Berkeley Business Law Journal* 2, 2019, 555.

⁵⁶ Omelchuk O, Illiopol I and Alina S, 'Features of inheritance of cryptocurrency' 10 *Ius Humani* 1, 2021, 109.

⁵⁷ Omelchuk et al, 'Features of inheritance of cryptocurrency', 109.

⁵⁸ Kharitonova JS, 'Digital assets and digital inheritance', 4.

⁵⁹ Kharitonova JS, 'Digital assets and digital inheritance', 4.

⁶⁰ Mali P and Aswathy PG, 'Death in the era of perpetual digital afterlife: Digital assets, posthumous legacy, ownership and its legal implications' Social Science Research Network, 2021, 141.

⁶¹ Mali P and Aswathy PG, 'Death in the era of perpetual digital afterlife', 141.

Prost acknowledges the need to tackle the issue of inheritance of cryptocurrency. He also notes the issues that may come about due to such inclusion of cryptocurrencies in a will and how it would involve a third party; a lawyer, however this goes against decentralization aspect of cryptocurrencies.⁶² He also highlights the problem that the blockchain can never be aware of the death of a crypto-owner.⁶³ In order to combat these problems, he suggests a distributed protocol for the death announcement that is safe so that the blockchain is made aware of the death of a particular individual who owns cryptocurrency.

Contribution

This study will contribute to the studies on cryptocurrency specifically in regard to the succession of cryptocurrency. It will also contribute to property law by showing that cryptocurrency can indeed be classified as legal property and thus the principles of property law can apply to it.

1.8. METHODOLOGY

The research in this study will be of a qualitative nature. The main sources of data for this study will be secondary sources such as books, journal articles and reports as well as research blogs. This study will also refer to primary sources such as case law and various statutes like the Securities and Exchange Commission (SEC) regulations in the USA. Generally, a deductive approach will be used to derive my claim in this study and this will help to prove my hypothesis that is outlined in each of the research questions.

First, this research will tackle the issue of defining cryptocurrencies and what their legal nature is. To accomplish this, a historical analysis will be applied in order to establish the origin of cryptocurrencies and how they have been used over the time that they have been around as well as how they have been classified. This will entail analysing the white paper that was published by Satoshi Nakamoto, the creator of Bitcoin. This will be followed by an assessment and examination of the advantages. To do this, a documentary analysis will be applied through the use of books, case law and scholarly works.

⁶² Prost F, 'Inheritance and blockchain: Thoughts and open questions' arXiv, 2022, 3.

⁶³ Prost F, 'Inheritance and blockchain', 3.

I will then proceed to examine the current status regarding the inheritance of cryptocurrencies in Kenya. This will entail assessing the Kenyan laws that may be relevant to the governance of cryptocurrencies and their inheritance and whether they are equipped to handle crypto assets.

I will then assess whether Kenya should establish a legal framework to govern the inheritance of cryptocurrencies. To do so, I will apply a deductive approach to make the claim. This will also be done through a comparative analysis of the Kenyan and USA legal frameworks for cryptocurrency inheritance.

1.9. CHAPTER BREAKDOWN

Chapter one is the introductory part of the study. It will provide the groundwork for the following chapters by describing the research objectives, theoretical framework, justification for the study, among other things.

Chapter two will analyse the history of cryptocurrency, assess what it is and how it works, as well as, its nature as an asset as well and finally whether it can be classified as legal property. It will also look at the advantages of cryptocurrencies.

Chapter three will then discuss the current status regarding the inheritance of cryptocurrencies in Kenya and whether the Kenyan legal framework is equipped to handle the governance of cryptocurrencies and their inheritance.

Chapter four will assess the legal framework of the United States of America (USA) and how it handles the governance of cryptocurrencies and their inheritance. It will also look at the effects of establishing a legal framework to govern the inheritance of cryptocurrencies and what lessons Kenya can learn from the USA on this topic.

Finally, chapter five will seek to recommend suggestions for amendments to the current legislative framework in Kenya in order to allow for the inheritance of cryptocurrencies.

CHAPTER TWO

CRYPTOCURRENCY AS LEGAL PROPERTY

2.0. INTRODUCTION

Cryptocurrency has been a growing trend since the advent of Bitcoin that appeared on the world stage in 2008.⁶⁴ As more and more people begin to get interested and even engage with it, there is need to understand how it emerged, what it is and how it works. The aim of this chapter is to delve into the history of cryptocurrency. This chapter will also define what cryptocurrency is and how it works as well as its nature as an asset.

2.1. HISTORY OF CRYPTOCURRENCY

The history of cryptocurrency is marked by innovation, technological advancements, regulatory challenges and evolving use cases. The idea of cryptocurrencies first emerged during the early 1980s when an American cryptographer named David Chaum created a digital currency called ECash.⁶⁵ This digital currency relied on cryptography for securing and verification of transactions.⁶⁶ In 1984, Chaum further went on to create an electronic payment system that proved difficult to trace by the banking systems and the government.⁶⁷ This payment system utilized private and public key cryptography to facilitate payments.⁶⁸ In 1989, Chaum founded DigiCash which was aimed at privacy and ensuring that one's data was not subject to manipulation by others.⁶⁹ The centralisation of DigiCash ultimately hindered its widespread adoption.⁷⁰ Regardless

⁶⁴ Berman N and Siripurapu A, 'Cryptocurrencies, digital dollars, the future of money' Council on Foreign Relations, 28 February 2023 <https://www.cfr.org/backgrounder/cryptocurrencies-digital-dollars-and-future-money> on 28 February 2023.

⁶⁵ Rice M, 'Cryptocurrency: History, advantages, disadvantages, and the future' Published BAAcc Thesis, Liberty University, Lynchburg, 2019, 5.

⁶⁶ <https://guardian.ng/technology/tech/the-idea-and-a-brief-history-of-cryptocurrencies/> on 26 December 2021.

⁶⁷ Rice M, 'Cryptocurrency: History, advantages, disadvantages, and the future', 5.

⁶⁸ Lancaster DM and Orr DA, 'Cryptocurrency and the blockchain: A discussion of forensic needs' 7 *International Journal of Cyber-Security and Digital Forensics* 4, 2018, 421.

⁶⁹ Hanl A, 'Some insights into the development of cryptocurrencies', University of Marburg, MAGKS Joint Discussion Paper Series in Economics, Working Paper Number 4, 2018 https://www.econstor.eu/bitstream/10419/175855/1/04-2018_hanl.pdf on 5th February 2018.

⁷⁰ Hussey M, 'What was DigiCash?' Decrypt, 4 February 2019 <https://decrypt.co/resources/digicash-what-is-cryptocurrency-explainer> on 4 February 2019.

of this, the intellectual foundation of future cryptography technology was established with the emergence of Chaum's innovation.⁷¹

With the 1990s came the advent of the Cypherpunk movement.⁷² This movement comprised privacy advocates, cryptographers, and technology visionaries who championed the idea that individuals should have the tools and knowledge to ensure that their online activities and communications are protected from prying eyes and centralised authorities.⁷³ At the heart of this movement were the likes of Timothy C. May, Eric Hughes, and John Gilmore to name a few.⁷⁴ These pioneers collectively shared leveraging robust cryptography that was aimed at ensuring privacy, enhancing personal freedoms, and challenging the status quo of centralised control over information.⁷⁵ Their writings and work shaped the ideologies and technologies that influenced digital privacy, encryption and ultimately the broader realm of decentralised technology in the contemporary digital landscape.⁷⁶

The 1990s also saw the introduction of the idea of 'smart contracts' by Nick Szabo.⁷⁷ Nick Szabo is a renowned computer scientist, legal scholar, and cryptographer who is well-known for his contributions to the field of cryptocurrency and blockchain technology.⁷⁸ Regarding the development of smart contracts and cryptocurrencies, Szabo introduced the idea of a self-executing contract with the terms of agreement written directly into code.⁷⁹ This contract was designed to automatically enforce, facilitate, or verify the negotiation or performance of a contract, thus eliminating the need for intermediaries.⁸⁰ Szabo also explored the idea of the creation of digital

⁷¹ Garrat R and Bech M, 'Central bank cryptocurrencies' 1 *BIS Quarterly Review* 1, 2017, 65.

⁷² Anderson PD, 'Privacy for the weak, transparency for the powerful: the cypherpunk ethics of Julian Assange' *SpingerLink*, 2020, 1.

⁷³ Anderson PD, *Cypherpunk ethics: Radical ethics for the digital age*, 1 ed, Routledge, New York, 2022, 1.

⁷⁴ Chino T and Subramanian R, 'The state of cryptocurrencies, their issues and policy interactions' 24 *Journal of International Technology and Information Management* 3, 2015, 26.

⁷⁵ Karlstrøm H, 'Do libertarians dream of electric coins? The material embeddedness of Bitcoin' 15 *Scandinavian Journal of Social Theory* 1, 2014, 29.

⁷⁶ Jansen MA, 'Bitcoin: The political 'virtual' of an intangible material currency' Published MA Thesis, Utrecht University, Utrecht, 2012, 40.

⁷⁷ De Graaf TJ, 'From old to new: From internet to smart contracts and from people to smart contracts' 35 *Computer Law & Security Review* 5, 2019, 4.

⁷⁸ <https://www.brickken.com/post/blog-nick-szabo> on 19 October 2023.

⁷⁹ Wang S, Ouyang L, Yuan Y, Ni X, Han X and Wang FE, 'Blockchain-enabled smart contracts: Architecture, applications, and future trends' 49 *IEEE Transactions on Systems, Man, and Cybernetics: Systems* 1, 2019, 1.

⁸⁰ Hamilton M, 'Blockchain distributed ledger technology: An introduction and focus on smart contracts' 31 *Journal of Corporate Accounting & Finance* 1, 2020, 3.

tokens that could effectively act as digital cash and this essentially paved the way for the creation of cryptocurrencies like Bitcoin.⁸¹ Though Szabo's contributions were mainly theoretical and conceptual, they established a foundational framework for the development of smart contracts as they are known today, as well as the evolution of blockchain technology and the broader cryptocurrency ecosystem.⁸²

In 2008, a mysterious figure going by 'Satoshi Nakamoto' released the Bitcoin whitepaper titled 'Bitcoin: A Peer-to-Peer Electronic Cash System'.⁸³ This document introduced the idea of Bitcoin, a decentralised digital currency that operated on a public ledger, the blockchain.⁸⁴ On 3 January 2009, the first Bitcoin block was mined and aptly named the 'genesis block'. This marked the birth of the Bitcoin network and the advent of a new era in the financial world.⁸⁵ The days following this were marked with daring experimentation and in 2010, a programmer by the name of Laszlo Hanyecz made history by conducting the first real-world Bitcoin transaction- a moment celebrated as the 'Bitcoin Pizza Day'.⁸⁶ He achieved this feat by purchasing two supreme pizzas for the price of 10,000 bitcoins (BTC) from Papa John's.⁸⁷

From 2011, as Bitcoin gained traction, various developers ventured into the creation of alternative digital currencies, dubbed 'altcoins'.⁸⁸ Among these were Litecoin (LTC) and Ripple and they explored distinct features and use cases, thus contributing to the diversification of the cryptocurrency landscape.⁸⁹ Cryptocurrency exchanges began to gain momentum, offering platforms for users to essentially trade digital assets and foremost among these platforms was Mt.

⁸¹ Wenker N, 'Online currencies, real-world chaos: The struggle to regulate the rise of bitcoin' 19 *Texas Review of Law & Politics* 1, 2014, 148-149.

⁸² N Gabashvili, T Gabashvili and Kidnadze M, 'From paper contracts to smart contracts' *CyberLeninka*, 2022, 125.

⁸³ Šurda P, 'The origin, classification and utility of bitcoin' *Social Science Research Network*, 2014, 3.

⁸⁴ Nakamoto S, 'Bitcoin: A peer-to-peer electronic cash system' *Social Science Research Network*, 2008, 8.

⁸⁵ George B, 'The genesis block: The first bitcoin block' *Coindesk*, 3 January 2023 <https://www.coindesk.com/tech/2023/01/03/the-genesis-block-the-first-bitcoin-block/> on 3 January 2023.

⁸⁶ Luther WJ, 'Getting off the ground: the case of bitcoin' 15 *Journal of Institutional Economics* 2, 2019, 12.

⁸⁷ Küfeoğlu S and Özkuran M, 'Bitcoin mining: A global review of energy and power demand' 58 *Energy Research & Social Science* 1, 2019, 3.

⁸⁸ Frankenfield J, 'Altcoin explained: Pros and cons, types and future' *Investopedia*, 16 May 2022 <https://www.investopedia.com/terms/a/altcoin.asp#:~:text=The%20first%20altcoin%20was%20Litecoin,Ether%20is%20another%20altcoin.> on 16 May 2022.

⁸⁹ Paltrinieri A, Alon A and Jalal NUD, 'A bibliometric review of cryptocurrencies as a financial asset' *Taylor and Francis*, 2021, 2.

Gox, a massive presence in the Bitcoin market.⁹⁰ However, its place in the cryptocurrency world was marred by tumultuous episodes, including security breaches that resulted in the exchange's bankruptcy in 2014 due to the loss of a substantial amount of users' Bitcoin holdings.⁹¹ This debacle highlighted the urgent need for security and regulation within the cryptocurrency space.⁹²

The advent of Ethereum in 2015 by Vitalik Buterin altered the cryptocurrency landscape.⁹³ Ethereum introduced the idea of smart contracts which expanded the scope of blockchain technology, thus enabling the creation of decentralised applications (DApps) and fostered entirely new use cases.⁹⁴ 2017 witnessed the rise of Initial Coin Offerings (ICOs), a novel fundraising mechanism for blockchain projects.⁹⁵ These ICOs offered innovative pathways for project funding, though accompanied by concerns of fraud and the need for regulatory oversight.⁹⁶

In recent years, various institutions and financial giants such as Standard Chartered, BNY Mellon and Deutsche Bank have begun to accept cryptocurrencies and have even begun to view them as a store of value.⁹⁷ There has been the expansion of cryptocurrency-related products and thus their accessibility to traditional investors.⁹⁸ In addition to that, cryptocurrency has evolved into a dynamic and continuously unfolding asset class.⁹⁹ There has been the introduction of Decentralised Finance (DeFi) platforms that offer lending, borrowing and trading services.¹⁰⁰

⁹⁰ Saggese P, Belmonte A, Dimitri N, Facchini A and Böhme R, 'Who are the arbitrageurs? Empirical evidence from Bitcoin traders in the Mt. Gox exchange platform' arXiv, 2021, 3.

⁹¹ Rao S, 'Mt. Gox-The fall of a giant' in Corbet S, *Understanding cryptocurrency fraud: The challenges and headwinds to regulate digital currencies* 2ed, De Gruyter, Germany, 2021, 72-74.

⁹² Gandal N, Hamrick JT, Moore T and Oberman T, 'Price manipulation in the bitcoin ecosystem' *95 Journal of Monetary Economics* 1, 2018, 88.

⁹³ Metcalfe W, 'Ethereum, smart contracts and DApps' in Yano M, Dai C, Masuda K and Kishimoto Y, *Blockchain and crypt currency: Building a high quality marketplace for crypt data* 1ed, Springer Open, Tokyo, 85.

⁹⁴ Metcalfe W, 'Ethereum, smart contracts and DApps, 79-83.

⁹⁵ Pilkington M, 'The Emerging ICO landscape - Some financial and regulatory standpoints' Social Science Research Network, 2018, 2.

⁹⁶ Pilkington M, 'The emerging ICO landscape - Some financial and regulatory standpoints' Social Science Research Network, 2018, 15.

⁹⁷ Howcroft E, 'Deutsche Bank to hold crypto for institutional clients' Reuters, 14 September 2023 <https://www.reuters.com/business/finance/deutsche-bank-hold-crypto-institutional-clients-2023-09-14/#:~:text=Still%2C%20various%20mainstream%20financial%20firms,Generale%2C%20offer%20crypto%20custody%20services> on 14 September 2023.

⁹⁸ Rejeb A, Rejeb K and Keogh JG, 'Initial exchange offerings: The next evolution in cryptocurrencies' *20 Etikonomi* 1, 2021, 103.

⁹⁹ Aziz A, 'Cryptocurrency: evolution & legal dimension' *18 International Journal of Business, Economics and Law* 4, 2019, 33.

¹⁰⁰ Santoro J, Ramachandran A and Harvey CR, *DeFi and the future of finance* 1ed, John Wiley & Sons Inc, Hoboken, 2021, 2.

The rise of Non-Fungible Token (NFTs) also introduced the concept of ownership of unique digital assets.¹⁰¹

As cryptocurrency grows more and more into an intriguing phenomenon, governments around the world are trying to grapple with its intricacies¹⁰² and thus, its potential as an asset is beginning to be recognised.¹⁰³

2.2. WHAT IS CRYPTOCURRENCY?

Cryptocurrency has been widely defined as a kind of digital asset that is an intangible digital currency that is intended to be a medium of exchange.¹⁰⁴ It uses a sophisticated type of encryption called cryptography that secures and verifies transactions as well as controlling the creation of new currency units.¹⁰⁵ Cryptocurrency is decentralised¹⁰⁶ and is not backed by government-issued legal tender.¹⁰⁷ It is only available in an electronic form and is stored and transacted through software, computer or mobile applications that have been designed to carry out such a function.¹⁰⁸

Cryptocurrency comes about through a technological process where virtual units are programmatically generated at a predetermined and transparent rate.¹⁰⁹ This method mimics the concept of a finite resource and ensures the controlled and predictable emergence of new cryptocurrency units.¹¹⁰ These units then go through a process called ‘mining’ which involves individuals or groups of computers solving complex mathematical equations on a public network

¹⁰¹ Bodo B, Mezei P, Quintais JP and Giannopoulou A, ‘The rise of NFTs: These aren't the droids you're looking for’ 44 *European Intellectual Property Review* 5, 2022, 17.

¹⁰² Frebowitz RL, ‘Cryptocurrency and state sovereignty’ Published MA Thesis, Naval Postgraduate School, Monterey, 2018, 57.

¹⁰³ Dünser T, Sandner P and Ferreira A, ‘Cryptocurrencies, DLT and crypto assets – the road to regulatory recognition in Europe’ Social Science Research Network, 2021, 1-2.

¹⁰⁴ Tredinnick L, ‘Cryptocurrencies and blockchain’ 36 *Business Information Review* 1 2019, 39.

¹⁰⁵ Yetmar SA, ‘What is cryptocurrency?’ 11 *Journal of Business Theory and Practice* 2, 2023, 35.

¹⁰⁶ Amsyar I, Christopher E, Dithi A, Khan AN and Maulana S, ‘The challenge of cryptocurrency in the era of the digital revolution: A systemic literature review’ 2 *Aptisi Transactions on Technopreneurship* 2 2020, 155.

¹⁰⁷ Zohuri B, Nguyen HT, Moghaddam M, ‘What is the cryptocurrency? Is it a threat to our national security, domestically and globally?’ 3 *I J T C Phycsics* 1, 2022, 7.

¹⁰⁸ Frankenfield J, ‘Virtual currencies: Definitions, types, advantages & disadvantages’ Investopedia, 24 March 2022 <https://www.investopedia.com/terms/v/virtual-currency.asp#:~:text=A%20virtual%20currency%20is%20a, networks%20or%20over%20the%20Internet> on 24 March 2022.

¹⁰⁹ Turpin JB, ‘Bitcoin: The economic case for a global virtual currency operating in an unexplored legal framework’, 335.

¹¹⁰ Turpin JB, ‘Bitcoin: The economic case for a global virtual currency operating in an unexplored legal framework’, 335.

called a blockchain.¹¹¹ This blockchain acts like a public ledger and validates and records transactions in chronological order.¹¹² In return for this, miners are usually awarded newly created cryptocurrency tokens that enter circulation as part of the supply.¹¹³ This process helps to secure the network and ensure the integrity of transactions without the need for a central authority.¹¹⁴

The intrinsic value of a cryptocurrency emanates from the trust it receives from its users through the use of the blockchain.¹¹⁵ It is further protected by cryptography which secures and authenticates the cryptocurrency.¹¹⁶

2.3. HOW DOES CRYPTOCURRENCY WORK?

Unlike traditional currencies, cryptocurrency is neither issued nor regulated by the government.¹¹⁷ It takes a decentralised approach whereby it operates on a distributed public ledger technology known as a blockchain.¹¹⁸ This ledger is tamper-proof and is updated and held by all currency holders.¹¹⁹ This approach eliminates the need for intermediaries such as financial institutions and governments to conduct financial transactions as well as the provision of greater transparency and security.¹²⁰

Each unit of the cryptocurrency exists on a blockchain and there are no coins held outside of it.¹²¹ The cryptocurrency supply depends on a process called ‘mining’ through which each unit of cryptocurrency is added onto the blockchain.¹²² Once units of cryptocurrency have been mined

¹¹¹ Ankalkoti P and Santhosh SG, ‘A relative study in bitcoin mining’ 3 *Imperial Journal of Interdisciplinary Research* 5, 2017, 1757-1758.

¹¹² Nakamoto S, ‘Bitcoin: A peer-to-peer electronic cash system’ Social Science Research Network, 2008, 9.

¹¹³ Bain T and Kent P, *Cryptocurrency mining for dummies*, 2 ed, John Wiley & Sons, Inc, Hoboken, 2022, 58.

¹¹⁴ Chui J and Koepl VT, ‘The economics of cryptocurrency- Bitcoin and beyond’ Social Science Research Network, 2017, 4.

¹¹⁵ Damsgaard J, ‘The real value of cryptocurrency’ Social Science Research Network, 2022, 3.

¹¹⁶ Scott B and Pernice IGA, ‘Cryptocurrency’ 10 *Internet Policy Review* 2, 2021, 4.

¹¹⁷ Keene L and Brill A, ‘Cryptocurrencies: The next generation of terrorist financing?’ 6 *Defence Against Terrorism Review* 1, 2014, 12.

¹¹⁸ Warmke C, Rettler B and Bailey A.M, ‘Philosophy, politics, and economics of cryptocurrency I: Money without state’ 16 *Philosophy Compass* 11, 2021, 3.

¹¹⁹ Rosen A, ‘Cryptocurrency, explained: A guide for beginners’ Nerdwallet, 11 August 2023 <https://www.nerdwallet.com/article/investing/cryptocurrency> on 11 August 2023.

¹²⁰ Tiwari N, ‘The commodification of cryptocurrency’ 117 *Michigan Law Review* 3, 2018, 615.

¹²¹ Hellani H, Samhat AE, Chamoun M, El Ghor H and Serhrouchni A, ‘On blockchain technology: Overview of bitcoin and future insights’ IEEE Xplore, 2018, 2.

¹²² Konoth RK, Vineti E, Moonsamy V, Lindorfer M, Kruegel C, Bos H and Vigna G, ‘MineSweeper: An in-depth look into drive-by cryptocurrency mining and its defense’ Association for Computing Machinery Digital Library, 2018, 1715.

and the transactions validated, the miners get the cryptocurrency as a reward which reduces the transaction fees.¹²³ This takes a period of roughly ten minutes.¹²⁴ Most transactions will have one or two outputs: one for the payment and one for sending any change, if any, to the sender.¹²⁵ Common transactions may either contain a single input from a bigger earlier transaction or numerous inputs combining lesser amounts.¹²⁶ Miners get a transaction fee equal to the difference between a transaction's total input and output amounts.¹²⁷

Cryptocurrency is created using a computer and is scaled on hashes per second.¹²⁸ This is the process of hashing which refers to a purely deterministic procedure where an input of arbitrary length is converted to one of a fixed length.¹²⁹ An ideal cryptocurrency hashing algorithm needs to have the following properties: it is difficult to compute so that participants are not provided with shortcuts or undue advantages; The cost is parameterisable so the energy expenditure required to mine the valid block is not fixed over time; and it is easy to verify the correctness of the hashed output from the input material.¹³⁰ A new hash is created every time someone succeeds in solving a block and mining a coin.¹³¹ Specifically designed machines called 'mining machines' are needed to mine cryptocurrency efficiently.¹³² All evidence of a user's ownership of cryptocurrencies is stored in an exhaustive blockchain which contains all the cryptocurrency transactions.¹³³ Owners of cryptocurrencies utilise 'digital wallets' to keep track of their own account balances for the

¹²³ Nakamoto S, 'Bitcoin: A peer-to-peer electronic cash system' Social Science Research Network, 2008, 4.

¹²⁴ Frankenfield J, 'Bitcoin mining' Investopedia, 26 April 2023 <https://www.investopedia.com/terms/b/bitcoin-mining.asp> on 26 April 2023.

¹²⁵ <https://bitpay.com/blog/how-crypto-transactions-work/> on 26 January 2023.

¹²⁶ Chen G, Xu B, Lu M and Chen NS, 'Exploring blockchain technology and its potential applications for education' *5 Smart Learning Environments* 1, 2018, 3.

¹²⁷ Ghimire S and Selvaraj H, 'A survey on bitcoin cryptocurrency and its mining' IEEE Xplore, 2018, 3.

¹²⁸ Pawar T, Shirsat S, Payil Y, Sonawane V and Birari D, 'A survey on mining cryptocurrencies' in Rajesh M, Vengatesan K, Gnanasekar M, Sitharthan R, Pawar AB Kalvadekar PN and Saiprasad P, *Recent trends in intensive computing* 1ed, IOS Press BV, Amsterdam, 2021, 330-333.

¹²⁹ Alsindi WZ and Lotti L, 'Mining' *10 Internet Policy Review* 2, 2020, 3.

¹³⁰ Alsindi WZ and Lotti L, 'Mining' *10 Internet Policy Review* 2, 2020, 3.

¹³¹ Mukhopadhyay U, Skjellum A, Hambolu O, Oakley J, Yu L and Brooks R, 'A brief survey of cryptocurrency systems' IEEE Xplore, 2017, 2.

¹³² Hari KR, Sai SY and Venkata TVM, 'Cryptocurrency mining – transition to cloud' *6 International Journal of Advanced Computer Science and Applications* 9, 2015, 115.

¹³³ Bachynskyy T and Radeiko R, 'Legal regulations of blockchain and cryptocurrency in Ukraine' *60 Hungarian Journal of Legal Studies* 1, 2019, 4-5.

purposes of transactions.¹³⁴ These wallets are collections of public and private keys through which successful transfers of funds can be achieved.¹³⁵

The wallet can be compared to an Excel spreadsheet that records and tracks a person's balance not the cryptocurrency units themselves.¹³⁶ There is an association with a certain address of cryptocurrency units, a public key for cryptocurrency transactions.¹³⁷ To verify each transaction, the public key cryptography methods encrypts and decrypts messages.¹³⁸ Cryptocurrency units are then transferred to the public key of each person and managed in their owner's private key.¹³⁹ In the event of an attack by a computer hacker accessing someone's private key, and then sending cryptocurrency units to his or her own public key in order to steal them, he or she can do so using the person's private key.¹⁴⁰ The person will only know his private key and thus will be unable to recover the stolen cryptocurrency units. It is thus important to protect the private key from intruders.¹⁴¹

2.4. THE NATURE OF CRYPTOCURRENCY AS AN ASSET

There have been numerous attempts to classify the nature of cryptocurrency by various authors and legal jurisdictions. Fokri et al argue for the classification of cryptocurrency into a digital currency and a digital token.¹⁴² They further posit that establishing a specific method aimed at classifying both into security tokens will facilitate the enforcement of developed technology.¹⁴³

Henderson et al propose a new scheme of classifying cryptocurrency based on the function of the

¹³⁴ Gutoski G and Stebila D, 'Hierarchical deterministic bitcoin wallets that tolerate key leakage' SpringerLink, 2015, 497.

¹³⁵ Volety T, Saini S, McGhin T, Liu CZ and Choo KKR, 'Cracking bitcoin wallets: I want what you have in the wallets' 91 *Future Generations Computer Systems* 1, 2019, 136.

¹³⁶ Árnason SL, 'Cryptocurrency and Bitcoin: A possible foundation of future currency why it has value, what is its history and its future outlook' Semantic Scholar, 2015, 10.

¹³⁷ Liu Y, Li R, Liu X, Zhang L, Tang C and Kang H, 'An efficient method to enhance bitcoin wallet security' IEEE Xplore, 2017, 26.

¹³⁸ Hellman ME, 'An overview of public key cryptography' 16 *IEEE Communications Magazine* 4, 1978, 43.

¹³⁹ Hinkes AM, 'Throw away the key, or the key holder? Coercive contempt for lost or forgotten cryptocurrency private keys, or obstinate holders' 16 *Northwestern Journal of Technology and Intellectual Property* 4, 2019, 230.

¹⁴⁰ He D, Li S, Li C, Zhu S, Chan S, Min W and Guizani N, 'Security analysis of cryptocurrency wallets in android-based applications' IEEE Xplore, 2020, 1.

¹⁴¹ Guri M, 'BeatCoin: Leaking private keys from air-gapped cryptocurrency wallets' IEEE Xplore, 2018, 1308.

¹⁴² Fokri WNIWM, Ali EMTE, Nordin N, Chik WMYW, Aziz SA and Jusoh AJM, 'Classification of cryptocurrency: A review of the literature' 12 *Turkish Journal of Computer and Mathematics Education* 5, 2021, 1358.

¹⁴³ Fokri et al, 'Classification of cryptocurrency: A review of the literature', 1358.

token.¹⁴⁴ They posit that cryptocurrency should be categorised into three broad types: crypto-transaction tokens which act as a cash substitute, crypto-fuel tokens which underpin the generic blockchain technology, and crypto-voucher tokens which can be exchanged for a predefined asset.¹⁴⁵ They push for the use of this approach for the classification of cryptocurrency as a means to enable investors, participants and regulators to determine whether cryptocurrency can fulfil its purpose and meet investor's expectations.¹⁴⁶ In addition to that, some countries have chosen to regulate and determine cryptocurrency and its nature according to its capabilities within the confines of their jurisdiction. South Africa, for example, amended its Financial Advisory and Financial Intermediary Services Act to include crypto-assets in the definition of 'financial products'.¹⁴⁷ Another example is El Salvador which declared Bitcoin as the country's legal tender alongside the US dollar in September 2021 and thus businesses are required to accept it as payment for services and products.¹⁴⁸

2.4.1. Features of cryptocurrency

To determine the nature of cryptocurrency, there needs to be an exploration of its features. Cryptocurrency is unique as an asset regarding its features and characteristics.

i. Decentralisation

Numerous cryptocurrencies operate on decentralised networks and this essentially means that cryptocurrencies do not need centralised authorities such as banks and financial institutions to regulate them.¹⁴⁹ Their transactions and record keeping are managed by a distributed network of participants and transactions are recorded on a public ledger, the blockchain.¹⁵⁰

ii. Limited supply

¹⁴⁴ Henderson A, Burnie J and Burnie A, 'Developing a cryptocurrency assessment framework: Function over form' 3 *Ledger* 1, 2018, 25.

¹⁴⁵ Henderson et al, 'Developing a cryptocurrency assessment framework: Function over form', 24.

¹⁴⁶ Henderson et al, 'Developing a cryptocurrency assessment framework: Function over form', 33.

¹⁴⁷ Section 1, *Financial Advisory and Financial Intermediary Services Act of the Republic of South Africa* (Act No. 37 of 2002).

¹⁴⁸ Alvarez FE, Argente D and Van Patten D, 'Are cryptocurrencies currencies? Bitcoin as legal tender in El Salvador' National Bureau of Economic Research, NBER Working Paper Series, Working Paper 29968, 2023, 1 https://www.nber.org/system/files/working_papers/w29968/w29968.pdf on 23 February 2023.

¹⁴⁹ Dias MC, 'Cryptocurrencies- characteristics and behaviours from investors' Published M. Stat Thesis, NOVA University Lisbon, Lisbon, 2020, 6.

¹⁵⁰ Nakamoto S, 'Bitcoin: A peer-to-peer electronic cash system' Social Science Research Network, 2008, 9.

Most cryptocurrencies have a maximum number of units that can be created and this means that their supply is fixed or limited.¹⁵¹ This creates scarcity and can thus influence the value of the currency as the scarcer it is the more demand and value it has.¹⁵²

iii. Peer-to-peer transactions

Cryptocurrencies are unique because they enable users to transact directly with one another.¹⁵³ This is demonstrated when cryptocurrency that is bought goes directly to one's digital wallet without the involvement of an intermediary.¹⁵⁴

iv. Store of value

Most cryptocurrencies, particularly, Bitcoin are used as a store of value.¹⁵⁵ Their decentralised nature and limited supply make them attractive as a store of value and thus enable them to preserve and maintain their worth over time.¹⁵⁶ Cryptocurrencies are able to be preserved and maintain their worth over time because of their durability and capacity to exist within a digital space over a long period of time.¹⁵⁷ The volatility of cryptocurrencies keeps its users interested in investing in them because of the anticipation of riches hence its consideration as a store of value.¹⁵⁸ This also makes them able to hedge against traditional financial uncertainties.¹⁵⁹

Bearing this in mind, there is no guarantee that the value of cryptocurrencies can diminish to zero.¹⁶⁰ This can be due to various factors such as market forces of demand and supply, investor sentiment, production costs and so on.¹⁶¹ Government regulations such as the banning of certain

¹⁵¹ <https://medium.com/the-capital/key-characteristics-of-cryptocurrency-and-why-do-they-matter-to-you-5f33e483a40f> on 24 August 2020.

¹⁵² <https://medium.com/the-capital/key-characteristics-of-cryptocurrency-and-why-do-they-matter-to-you-5f33e483a40f> on 24 August 2020.

¹⁵³ Yuneline MH, 'Analysis of cryptocurrency's characteristics in four perspectives' 26 *Journal of Asian Business and Economic Studies* 2, 2019, 209.

¹⁵⁴ Yuneline MH, 'Analysis of cryptocurrency's characteristics in four perspectives', 209.

¹⁵⁵ Dimpfl T and Baur DG, 'The volatility of Bitcoin and its role as a medium of exchange and a store of value' SpringerLink, 2021, 2681.

¹⁵⁶ Kelleher JP, 'Why do bitocins have value?' Investopedia, 8 October 2023 <https://www.investopedia.com/ask/answers/100314/why-do-bitcoins-have-value.asp> on 8 October 2023.

¹⁵⁷ Kelleher JP, 'Why do Bitocins have value?' Investopedia, 8 October 2023 <https://www.investopedia.com/ask/answers/100314/why-do-bitcoins-have-value.asp> on 8 October 2023.

¹⁵⁸ Edwards J, 'Bitcoin's price history' Investopedia, 27 October 2023 <https://www.investopedia.com/articles/forex/121815/bitcoins-price-history.asp> on 27 October 2023.

¹⁵⁹ Kelleher JP, 'Why do bitocins have value?' Investopedia, 8 October 2023 <https://www.investopedia.com/ask/answers/100314/why-do-bitcoins-have-value.asp> on 8 October 2023.

¹⁶⁰ <https://coinswitch.co/switch/crypto/what-happens-when-crypto-value-goes-to-zero/> on 23 July 2023.

¹⁶¹ <https://coinswitch.co/switch/crypto/what-happens-when-crypto-value-goes-to-zero/> on 23 July 2023.

cryptocurrencies and the lack of regulation can affect the value of cryptocurrencies and lead their value to diminish to zero.¹⁶² Much as this is a possibility, it is very rare as most cryptocurrencies such as Bitcoin are supported by very reliable blockchain systems that offer great audit trails with many check points.¹⁶³ In addition to that, the fact there is no central bank with power over their creation makes them very attractive to investors.¹⁶⁴

v. Immutability

Once transactions have been recorded on the blockchain, they are permanent and cannot be altered or deleted.¹⁶⁵ This fosters trust within the system through transparency and security of the blockchain.¹⁶⁶

vi. Anonymity

Part of what makes cryptocurrencies attractive is the anonymity of users and the preservation of their privacy.¹⁶⁷ Transactions are not tied to the owner's identity but to a random sequence of numbers.¹⁶⁸

2.5. CRYPTOCURRENCY AS LEGAL PROPERTY

The term 'property' means 'one's own' and is derived from the Latin word 'proprius'.¹⁶⁹ Property has various meanings in various contexts and thus its meaning changes over time and space.¹⁷⁰ The law is essential to define property and protect property claims.¹⁷¹ Justice Strayton in the case of *Mellinger v City of Houston*¹⁷² posited that a right is a well-founded claim and thus is recognised

¹⁶² <https://coinswitch.co/switch/crypto/what-happens-when-crypto-value-goes-to-zero/> on 23 July 2023.

¹⁶³ White T, 'Can Bitcoin's value crash To zero?' Success, 16 January 2024 <https://www.success.com/can-bitcoins-value-crash-to-zero/> on 16 January 2024.

¹⁶⁴ White T, 'Can Bitcoin's value crash To zero?' Success, 16 January 2024 <https://www.success.com/can-bitcoins-value-crash-to-zero/> on 16 January 2024.

¹⁶⁵ Tuunainen VK, Merikivi J, Upreti B and Marella V, 'Understanding the creation of trust in cryptocurrencies: The case of Bitcoin' SpringerLink, 2020, 266.

¹⁶⁶ Tuunainen VK, Merikivi J, Upreti B and Marella V, 'Understanding the creation of trust in cryptocurrencies: The case of Bitcoin' SpringerLink, 2020, 266.

¹⁶⁷ Wijaya DA, 'Anonymity in cryptocurrency' Published PHD Thesis, Monash University, Melbourne, 2020, 3.

¹⁶⁸ Wijaya DA, 'Anonymity in cryptocurrency', 3.

¹⁶⁹ Costigan G, 'A plea for a modern definition and classification of real property' 12 *The Yale Law Journal* 7, 1907, 425.

¹⁷⁰ Kariuki F Ouma S and Ng'etich R, *Property law* 1ed, Strathmore University Press, Nairobi, 2016, 2.

¹⁷¹ Kariuki F et al, *Property Law*, 2

¹⁷² *Mellinger v City of Houston* [1887], The Supreme Court of Texas.

or secured by the law.¹⁷³ Property rights can only exist if they are protected by the law and this essentially means that property and the law go hand in hand; property cannot exist without the law.¹⁷⁴

Cryptocurrencies are gaining momentum in the global finance world as more and more people are choosing to invest in them and consider them property.¹⁷⁵ This has caused an urgent need to recognise cryptocurrencies as property under the law. By recognising cryptocurrency as legal property, one is able to get certainty and protection of their crypto-assets under the law.¹⁷⁶ This recognition will also enable cryptocurrency owners to assert legal rights over them and enable one to do things such as pass cryptocurrencies through inheritance to one's beneficiaries.¹⁷⁷

Recognising cryptocurrencies as legal property would also enable the existing legal framework on property ownership to be applied to cryptocurrencies.¹⁷⁸ This will also be helpful to legislators on how to regulate cryptocurrency for tax purposes, inheritance purposes and so on.¹⁷⁹ Regulating property enables courts to easily determine matters relating to property and to resolve conflicts related to that.¹⁸⁰ This will particularly be useful in matters relating to cryptocurrency.

The basis for someone to hold property rights includes the features of *in rem* and *in personam*.¹⁸¹ The *in rem* rights denotes the idea that a good or thing imposes a duty to the whole world to respect the rights of the owner of the good.¹⁸² This creates an exclusive right over one's good and thus entitles the owner to own, transfer and possess the good without interference from other parties.¹⁸³ *In personam rights*, on the other hand, denote that the owner of a good or thing has the right to

¹⁷³ *Mellinger v City of Houston* [1887], The Supreme Court of Texas.

¹⁷⁴ Bentham J, *The theory of legislation*, Oceana Publications, New York, 1975, 69.

¹⁷⁵ Howden E, 'The crypto-currency conundrum: Regulating an uncertain future' 29 *Emory International Law Review* 4, 2015, 742-744.

¹⁷⁶ Prayogo G, 'Bitcoin, regulation and the importance of national legal reform' 1 *Asian Journal of Law and Jurisprudence* 1, 2018, 8.

¹⁷⁷ Chisiiwa W, 'Regulation of the cryptocurrency in South Africa towards a legal framework' Published LLM Thesis, North-West University, Mahikeng, 2023, 45.

¹⁷⁸ Prayogo G, 'Bitcoin, regulation and the importance of national legal reform', 5.

¹⁷⁹ Prayogo G, 'Bitcoin, regulation and the importance of national legal reform', 5.

¹⁸⁰ Kariuki F et al, *Property Law*, 132.

¹⁸¹ Low KFK and Teo ESG, 'Bitcoins and other cryptocurrencies as property?', 8.

¹⁸² Alexander GS and Peñalver EM, 'An introduction to property theory' Cornell Law School, Legal Studies Research Paper Series, Cornell Legal Studies research paper No. 12-15, 2012, 2 https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2041517 on 1 November 2012.

¹⁸³ Kariuki F et al, *Property Law*, 32.

exclude a particular person or an action can be instituted against that particular person.¹⁸⁴ Cryptocurrencies, through a broad interpretation of property rights, can be determined to fulfil these because they can be owned and transferred as per *in rem* rights.¹⁸⁵ This can be demonstrated through the private cryptographic keys that enable one to own Bitcoin.¹⁸⁶ The cryptographic keys are able to be transferred and owned from one person to another on the blockchain.¹⁸⁷

In *National Provincial Bank v Ainsworth*¹⁸⁸, Lord Wilberforce made mention of the main characteristics of property; something definable, identifiable by third parties, capable in its nature of assumption by third parties and have some degree of permanence or stability.¹⁸⁹ Cryptocurrencies satisfy all these characteristics. As far as being identifiable and definable, cryptocurrencies satisfy this because of the public transactions on the blockchain.¹⁹⁰ Because cryptocurrencies are transferable between participants in the blockchain, they satisfy the condition of being capable of assumption by a third party.¹⁹¹ Regarding the condition of stability or permanence, cryptocurrencies are risky or volatile, however, they are no different from traditional assets.¹⁹² In addition to that, the condition for control and exclusivity is fulfilled since only the holder of the private key can access and control the cryptocurrency to the exclusion of others.¹⁹³

However, the unique character of cryptocurrencies makes it so that they may not need to be subject to the same regulatory frameworks as traditional forms of property.¹⁹⁴ The fact that they are decentralised, and intangible and operate on a peer-to-peer network hinders them from being regulated in the same way as traditional forms of property.¹⁹⁵ There is a need to develop a

¹⁸⁴ Honoré AM, 'Rights of exclusion and immunities against divesting' 34 *Tulane Law Review* 3, 1959, 453- 454.

¹⁸⁵ Low KFK and Teo ESG, 'Bitcoins and other cryptocurrencies as property?', 10.

¹⁸⁶ Jeffries A, 'How to steal bitcoin in three easy steps' *The Verge*, 19 December 2013 <https://www.theverge.com/2013/12/19/5183356/how-to-steal-bitcoin-in-three-easy-steps> on 19 December 2013.

¹⁸⁷ Lehmann M, 'Who owns bitcoin? Private law facing the blockchain' 21 *Minnesota Journal of Science, Law and Technology* 93, 2019, 101.

¹⁸⁸ *National Provincial Bank v Ainsworth* [1965], United Kingdom House of Lords.

¹⁸⁹ *National Provincial Bank v Ainsworth* [1965], United Kingdom House of Lords.

¹⁹⁰ United Kingdom Jurisdiction Task Force, *Legal statement on cryptoassets and smart contracts*, November 2019, 10.

¹⁹¹ United Kingdom Jurisdiction Task Force, *Legal statement on cryptoassets and smart contracts*, November 2019, 13-15.

¹⁹² United Kingdom Jurisdiction Task Force, *Legal statement on cryptoassets and smart contracts*, November 2019, 16.

¹⁹³ United Kingdom Jurisdiction Task Force, *Legal statement on cryptoassets and smart contracts*, November 2019, 16.

¹⁹⁴ Low KFK and Teo ESG, 'Bitcoins and other cryptocurrencies as property?', 33.

¹⁹⁵ Aksoy PC, 'The applicability of property law rules for cryptoassets: considerations from civil law and common Law perspectives' 15 *Law, Innovation & Technology* 1, 2023, 209.

regulatory framework that caters specifically to cryptocurrencies and protects the rights of their owners.¹⁹⁶

Despite all this, it can be said that cryptocurrency can be considered legal property as it is able to fit within the characteristics of traditional legal property.

2.5.1. What form of legal property is cryptocurrency?

Cryptocurrencies have been seen to fall within the ambit of property. They fall within the personal property category of *choses in action*.¹⁹⁷ This essentially means a form of property that is intangible and can only be enforced through legal and equitable action.¹⁹⁸ In *B2C2 Ltd v. Quoine Pte Ltd*,¹⁹⁹ Thorley LJ observed that cryptocurrency possessed the “fundamental characteristic of intangible property as being an identifiable thing of value”.²⁰⁰

Much as cryptocurrencies share many characteristics with traditional forms of property and can be considered legal property, it is unique and thus there is need to further categorise it so as to ease its regulation.²⁰¹ Because of their uniqueness and the inability of conventional property rules to manage cryptocurrencies, there is need to create a third category of property in addition to *choses in action and choses in possession*.²⁰²

In a consultation paper by the United Kingdom Law Commission (UKLC), the idea of a new category of property was proposed to accommodate digital assets particularly cryptocurrencies.²⁰³ The UKLC established three criteria for categorizing a thing as the third category of personal property: being composed of data in an electronic medium; existing independently of persons and the legal system; and being rivalrous.²⁰⁴ The first criterion acknowledges the informational quality

¹⁹⁶ UKLC, *Digital assets consultation paper*, 28 July 2022, 51.

¹⁹⁷ Gianscapro M and Babie P, ‘Cryptocurrency, crypto-tokens and crypto-assets as “data objects”. A novel form of property’ 127 *Penn State Law Review Penn Statim* 95, 2023, 4.

¹⁹⁸ Gianscapro M and Babie P, ‘Cryptocurrency, crypto-tokens and crypto-assets as “data objects”. A novel form of property’, 4.

¹⁹⁹ *B2C2 Ltd v. Quoine Pte Ltd* [2019], Singapore International Commercial Court.

²⁰⁰ *B2C2 Ltd v. Quoine Pte Ltd* [2019], Singapore International Commercial Court.

²⁰¹ Gianscapro M and Babie P, ‘Cryptocurrency, crypto-tokens and crypto-assets as “data objects”. A novel form of property’, 5.

²⁰² Fox D, ‘Cryptocurrencies in the common law of property’ Social Science Research Network, 2018, 14.

²⁰³ UKLC, *Digital assets consultation paper*, 28 July 2022, 77.

²⁰⁴ UKLC, *Digital assets consultation paper*, 28 July 2022, 79.

of digital assets exclusive to computerized systems, excluding tangible objects.²⁰⁵ The second criterion excludes things lacking independent existence and legal status.²⁰⁶ The third criterion requires the thing to be rivalrous, meaning its use by one person must prejudice others' simultaneous use.²⁰⁷ The UKLC applied these criteria to define five categories of "data objects," including digital files, email accounts, domain names, certain in-game digital assets, various carbon emissions schemes, and crypto-tokens.²⁰⁸ It was determined that crypto-tokens are the only digital assets that met the criteria of "data objects".²⁰⁹ Firstly, they satisfied the criterion of being composed of data in an electronic medium, considering crypto-tokens as specific data structures within a decentralized system.²¹⁰ Secondly, crypto-tokens were deemed to exist independently within their blockchain systems, functioning apart from persons and the legal system.²¹¹ They were not dependent on legal rights and were considered discrete objects. Finally, the UKLC concluded that crypto-tokens were rivalrous, distinguishing them from non-rivalrous data. The ability of blockchain participants to locate and control specific tokens within the system rendered them rivalrous, meeting the third criterion.²¹²

Ultimately, cryptocurrencies can be categorised as legal property and more specifically, they have the ability to be considered personal property. However, their uniqueness will require further categorisation in order to fully and easily regulate it. This approach proposed by the UKLC seems to be one that encompasses the evolving nature of the law. For countries, especially, Kenya, to tackle the conundrum that is cryptocurrency, this seems like a good place to start and will eventually enable governments to solve cryptocurrency related problems.

2.6. ADVANTAGES OF CRYPTOCURRENCIES AS PROPERTY

Proponents for cryptocurrencies have argued that cryptocurrencies ease transfer of funds between two parties in a transaction.²¹³ These transactions are facilitated by the use of public and private

²⁰⁵UKLC, *Digital assets consultation paper*, 28 July 2022, 79.

²⁰⁶UKLC, *Digital assets consultation paper*, 28 July 2022, 82.

²⁰⁷ UKLC, *Digital assets consultation paper*, 28 July 2022, 87.

²⁰⁸UKLC, *Digital assets consultation paper*, 28 July 2022, 109.

²⁰⁹UKLC, *Digital assets consultation paper*, 28 July 2022, 189.

²¹⁰UKLC, *Digital assets consultation paper*, 28 July 2022, 171.

²¹¹UKLC, *Digital assets consultation paper*, 28 July 2022, 176.

²¹²UKLC, *Digital assets consultation paper*, 28 July 2022, 179.

²¹³ Bunjaku F, Gjorgieva-Trajkovska O and Miteva-Kacarski E, 'Cryptocurrencies- advantages and disadvantages' 2 *Journal of Economics* 1, 2017, 36.

keys for the security purposes.²¹⁴ In addition to that, cryptocurrency transactions involve minimal processing fees which is more advantageous than using traditional financial institutions such as banks.²¹⁵

Cryptocurrencies have the potential to bring financial services closer to individuals who are unbanked.²¹⁶ Individuals that have access to smartphones and the internet are able to participate in cryptocurrency financial transactions and investments as well as enable them to access loans and build businesses anywhere at any time.²¹⁷ Olusegun and Olaniyi, in their study, posit that the presence of internet usage, mobile smartphones and cryptocurrencies stimulate financial inclusion and the development of the financial sector of a country.²¹⁸

Cryptocurrency users enjoy protection of their personal data.²¹⁹ There is a low risk of personal data being breached when it comes to cryptocurrencies because of the use of private keys that hold the information of its users.²²⁰ The users are only at risk if their private keys are accessed by hackers, which is usually difficult. This is an advantage over traditional financial institutions that are vulnerable and subject to numerous data breaches.²²¹ In 2016 alone, the average cost of data breaches reached \$ 4 million.²²² In 2017, Wonga, a short-term loan company, suffered a significant data breach whereby 245,000 customers' private information including bank account numbers, full names, email addresses, home addresses, phone numbers, and the last four digits of debit card numbers could have been compromised.²²³

²¹⁴ Bunjaku F et al, 'Cryptocurrencies- advantages and disadvantages', 36.

²¹⁵ Bunjaku F et al, 'Cryptocurrencies- advantages and disadvantages', 36.

²¹⁶ Patel E, 'How can cryptocurrencies play a role in promoting financial inclusion?' *The Economic Times*, 13 May 2023 <https://economictimes.indiatimes.com/markets/cryptocurrency/how-can-cryptocurrencies-play-a-role-in-promoting-financial-inclusion/articleshow/100205450.cms> on 13 May 2023.

²¹⁷ Abdulhakeem SA and Hu QL, 'Powered by blockchain technology, DeFi (Decentralized Finance) strives to increase financial inclusion of the unbanked by reshaping the world financial system', 12 *Modern Economy* 1, 2021, 12.

²¹⁸ Olusegun V and Olaniyi E, 'Can cryptocurrency, mobile phones, and internet herald sustainable financial sector development in emerging markets?' 24 *Journal of Transnational Management* 3, 2019, 270.

²¹⁹ Dumitrescu GC, 'Bitcoin – A brief analysis of the advantages and disadvantages' 5 *Global Economic Observer* 2, 2017, 66.

²²⁰ Singh A and Gilhotra R, 'Data security using private key encryption system based on arithmetic coding' 3 *International Journal of Network Security & Its Applications* 3, 2011, 61.

²²¹ Dumitrescu GC, 'Bitcoin – A brief analysis of the advantages and disadvantages', 66.

²²² Ponemon L, '2016 Ponemon institute cost of a data breach study' *Security Intelligence*, 15 June 2016 <https://securityintelligence.com/2016-cost-data-breach-study/> on 15 June 2016.

²²³ Osborne H, 'Wonga data breach could affect nearly 250,000 UK customers' *The Guardian*, 9 April 2017 <https://www.theguardian.com/business/2017/apr/09/wonga-data-breach-could-affect-250000-uk-customers> on 9 April 2017.

Cryptocurrencies add diversity to the users' investment portfolio.²²⁴ The more forms of diversification added to one's investment portfolio, the more consistent returns one may gain from the investment.²²⁵ By adding cryptocurrencies to one's investment portfolio, one is able to create a strong and well-diversified portfolio that is likely to have consistent returns and in the end is beneficial to investors.²²⁶

What makes cryptocurrencies attractive to users is the fact that they are anonymous and transparent.²²⁷ Every single cryptocurrency transaction is recorded on a public ledger called a blockchain that enables users to monitor the transactions and ensure that cases of theft and fraud do not occur.²²⁸ In addition to that, cryptocurrencies are stored on digital wallets that are encrypted and use public-key cryptography to ensure protection and privacy for the users.²²⁹ These mechanisms ensure anonymity and transparency in cryptocurrency transactions.

Cryptocurrencies are a better form of digitalisation of financial transactions than traditional online forms such as bank transfers, credit cards and ATMs.²³⁰ Cryptocurrency transactions are faster and require less transaction fees than traditional online forms.²³¹ This makes them more attractive and advantageous than traditional online forms.

It is easy to open a cryptocurrency wallet.²³² Anyone with access to a computer and the internet can open a cryptocurrency wallet²³³ and there are often no charges that are part of the process.²³⁴

²²⁴ Rice M, 'Cryptocurrency: History, advantages, disadvantages, and the future', 8.

²²⁵ Rice M, 'Cryptocurrency: History, advantages, disadvantages, and the future', 8.

²²⁶ Demiralay S and Bayraci S, 'Should stock investors include cryptocurrencies in their portfolios after all? Evidence from a conditional diversification benefits measure' 26 *International Journal of Finance & Economics* 4, 2020, 6202.

²²⁷ Sharma RP and Sharma A, 'Using cryptocurrency and associated advantages and disadvantages' 2 *International Journal of Economics & Finance Research & Applications* 2, 2018, 18.

²²⁸ Faturahman A, Agarwal V and Lukita C, 'Blockchain technology-The use of cryptocurrencies in digital revolution' 3 *LAIC Transactions on Sustainable Digital Innovation (ITSDI)* 1, 2021, 55.

²²⁹ Latifa ER, Ahemed EKM, Mohamed EG and Omar A, 'Blockchain: Bitcoin wallet cryptography security, challenges and countermeasures' 22 *Journal of Internet Banking and Commerce* 3, 2017, 6.

²³⁰ Sharma RP and Sharma A, 'Using cryptocurrency and associated advantages and disadvantages', 20.

²³¹ Bunjaku F et al, 'Cryptocurrencies- advantages and disadvantages', 36.

²³² Al Mashour OF and Aziz ASA, 'The era of cryptocurrencies: A study about the advantages and disadvantages' Sois Conference on Arts and Humanities, Kuala Lumpur, 18-19 December 2019, 13.

²³³ Frankenfield J, 'Cryptocurrency Wallet: What it is, how it works, types, security' Investopedia, 29 August 2023 <https://www.investopedia.com/terms/b/bitcoin-wallet.asp> on 29 August 2023.

²³⁴ Diaz R, 'How to open a crypto wallet? Are there fees to open one?' Bitkan, 13 July 2023 <https://bitkan.com/learn/how-to-open-a-crypto-wallet-are-there-fees-to-open-one-14874> on 13 July 2023.

Traditional financial institutions such as banks, however, require numerous documents and a fee may be charged for the process²³⁵ which is not the case with cryptocurrency wallets.

All in all, cryptocurrencies have various advantages that make them very attractive as an asset class and can prompt one to invest in and carry out transactions with them.



²³⁵ Kenton W, 'Bank fees definition and different types' Investopedia, 18 June 2023 <https://www.investopedia.com/terms/b/bank-fees.asp#:~:text=For%20instance%2C%20banks%20charge%20customers,be%20waived%20under%20certain%20conditions>. on 18 June 2023.

CHAPTER THREE

CURRENT STATUS REGARDING THE INHERITANCE OF CRYPTOCURRENCIES IN KENYA.

3.0. INTRODUCTION

Currently Kenya lacks crypto-specific laws to handle inheritance matters.²³⁶ As the world of cryptocurrency continues to evolve, so too do the complexities surrounding its inheritance. Kenya needs to address this dilemma as more and more Kenyans are beginning to consider cryptocurrencies as property and invest in it.

This chapter will examine the current legal framework of Kenya that may apply to cryptocurrencies and their inheritance and assess whether it is equipped to govern crypto assets.

3.1. THE KENYAN LEGAL FRAMEWORK ON CRYPTOCURRENCY

3.1.1. The Central Bank of Kenya Act

This is an Act established to create the Central Bank of Kenya (CBK), as well as its management and all other matters relating to money in Kenya.²³⁷ According to this Act, the only unit of currency in Kenya is the Kenyan shilling.²³⁸ The Act stipulates that the official currency must be used for settling all monetary obligations unless specified otherwise by law or mutual agreement between parties.²³⁹ Cryptocurrency and blockchain technology are explicitly not recognized as legal tender or currency under Kenyan law.²⁴⁰ The Act acknowledges foreign currency and outlines guidelines for transactions with foreign banks and non-residents, a framework that doesn't readily accommodate cryptocurrency due to its decentralized nature and lack of a central authority.²⁴¹

²³⁶ Mwangi E, 'LEGAL OUTLOOK: Digital assets inheritance in Kenya and how you can navigate the process' BitcoinKE, 27 March 2022 <https://bitcoinke.io/2022/03/digital-assets-inheritance-in-kenya/> on 27 March 2022.

²³⁷ *The Central Bank Act* (Act No. 15 of 1966).

²³⁸ Section 19(1), *The Central Bank of Kenya Act* (Act No.15 of 1966).

²³⁹ Section 21, *The Central Bank of Kenya Act* (Act No. 15 of 1966).

²⁴⁰ Greenfield R, 'The state of crypto regulation: Kenya' Medium, 8 July 2023 <https://medium.com/umojaproto-protocol/the-state-of-crypto-regulation-in-kenya-8a11189bda6b#:~:text=In%20Kenya%2C%20cryptocurrency%20is%20legal,legal%20tender%20or%20an%20asset> on 8 July 2023.

²⁴¹ Section 27(2), *The Central Bank of Kenya Act* (Act No. 15 of 1966).

According to the Act, CBK has the exclusive authority to issue legal tender in the form of notes and coins.²⁴² Only these officially issued notes and coins hold the status of legal tender for settling transactions and monetary obligations.²⁴³ The Act further grants the CBK the power to withdraw any notes and coins it issues.²⁴⁴ Notably, the Act explicitly does not recognize cryptocurrency, affirming that the CBK does not consider it a form of either local or foreign currency.

The Act acknowledges instruments like bills of exchange and promissory notes, with the CBK having regulatory authority over their issuance.²⁴⁵ The CBK, in consultation with the Minister, also known as the Cabinet Secretary of the National Treasury of the Republic of Kenya, publishes regulations to control these instruments, with penalties for violations.²⁴⁶ Notably, there is no mention of decentralized money or blockchain technology in this provision. Additionally, the Act regulates external relations, outlining the components of the reserve fund, which encompasses gold, foreign exchange, and marketable securities.²⁴⁷ However, it does not address cryptocurrencies, indicating their absence as recognized forms of value in these regulatory aspects.

Section 29 of the Act highlights the regulations governing relations with foreign central banks, foreign banks, and foreign financial institutions.²⁴⁸ This section primarily focuses on monetary interactions, specifying that the CBK can open accounts, accept deposits, and handle monetary transactions on behalf of foreign financial institutions. Notably, the legal framework in Kenya, as defined by the Act, lacks provisions for these aspects to encompass cryptocurrencies and blockchain technology, indicating that the CBK is not currently well-equipped to engage in such transactions.

Given the fact that the CBK has explored the viability of implementing a Central Bank Digital Currency (CBDC), it is safe to say that it is moving in the right direction when it comes to handling cryptocurrency related matters. However, the implementation of a CBDC will require a lot in terms

²⁴² Section 22(1), *The Central Bank of Kenya Act* (Act No. 15 of 1966).

²⁴³ Section 22(1), *The Central Bank of Kenya Act* (Act No. 15 of 1966).

²⁴⁴ Section 22(3), *The Central Bank of Kenya Act* (Act No. 15 of 1966).

²⁴⁵ Section 25(1), *The Central Bank of Kenya Act* (Act No. 15 of 1966).

²⁴⁶ Section 25(1), *The Central Bank of Kenya Act* (Act No. 15 of 1966).

²⁴⁷ Section 26(1), *The Central Bank of Kenya Act* (Act No. 15 of 1966).

²⁴⁸ Section 29, *The Central Bank of Kenya Act* (Act No. 15 of 1966).

of the development of the infrastructure to facilitate the services of cross-border payments, retail payments and so on.²⁴⁹ The CBK has noted the potential opportunities such as enhanced financial inclusion within the country as well the risks such as issues with cybersecurity that come with implementing a CBDC.²⁵⁰ It also notes that implementation of a CBDC requires a multidimensional undertaking which goes beyond the current financial innovation policy framework of the CBK.²⁵¹ Bearing this in mind, the CBK will need to undertake a thorough investigation into CBDCs and this will entail international and national consultations so as to understand how to implement a CBDC and this could lead to major disruptions in the financial world.²⁵² Currently, it seems that it will be a lot for the CBK to implement a CBDC as currently it does not have the framework to carry out such an undertaking.

3.1.2. The Central Depositories Act

The Central Depositories Act is established as the legal framework for the Central Depositories and Settlements Corporation (CDSC) in Kenya. The CDSC is responsible for operating a central depository for securities, facilitating the immobilization and dematerialization of securities transactions, and promoting safe and efficient securities settlement in the Kenyan market.²⁵³ This Act describes securities to mean:²⁵⁴

- a. Debentures or bonds issued or proposed to be issued by a government;
- b. Debentures, shares, bonds commercial paper or notes issued or proposed to be issued by a body corporate;
- c. Derivatives including futures and options contracts on securities, indices, interest or other rates, currency, futures or commodities;
- d. Any unit, interest or share offered under a collective investment scheme;
- e. Any instruments commonly known as securities but does not include;

²⁴⁹ CBK, *Discussion paper on central bank digital currency*, February 2022, 20.

²⁵⁰ CBK, *Discussion paper on central bank digital currency*, February 2022, 20-21.

²⁵¹ CBK, *Discussion paper on central bank digital currency*, February 2022, 20.

²⁵² CBK, *Discussion paper on central bank digital currency*, February 2022, 20.

²⁵³ *The Central Depositories Act* (Act No.4 of 2000).

²⁵⁴ Section 2, *The Central Depositories Act* (Act No.4 of 2000).

- i. Bills of exchange;
- ii. Promissory notes; or
- iii. Certificates of deposits issued by a bank or financial institution licensed under the Banking Act.

Going by the definitions above, the Central Depositories Act (CDA) primarily deals with traditional securities such as shares, bonds, and derivatives. While cryptocurrencies share some similarities with conventional securities, they are not explicitly defined as securities under the CDA.²⁵⁵ Initial coin offerings (ICOs), which are cryptocurrency launch events similar to initial public offerings (IPOs) for traditional securities, have gained popularity in recent years.²⁵⁶ In some jurisdictions, cryptocurrencies have been recognized as assets, subjecting them to taxation and categorization alongside securities.²⁵⁷

The CDA specifically excludes certain instruments from its definition of "securities," including bills of exchange, promissory notes, and certificates of deposit. This suggests that the legislature may not have intended for the CDA to encompass cryptocurrencies, which could be considered a distinct category of digital assets. However, there is an ongoing debate regarding the classification of cryptocurrencies under Kenyan law. The Central Bank of Kenya (CBK) has not yet issued any formal guidance or regulations specifically addressing cryptocurrencies. While the CBK has expressed concerns about the potential risks associated with cryptocurrencies, it has not taken a definitive stance on whether they constitute securities.²⁵⁸

In the absence of clear legal guidance, the status of cryptocurrencies as securities in Kenya remains uncertain. This could pose challenges for the CDSC in determining whether or not to accept

²⁵⁵ Liang J, Li L, Zeng D and Chen W, 'Towards an understanding of cryptocurrency: A comparative analysis of cryptocurrency, foreign exchange, and stock' IEEE Xplore, 2019,139.

²⁵⁶ Nyikuli EO, 'Exploring financial inclusion in Kenya through cryptocurrencies: a case for a regulatory framework', 33.

²⁵⁷ George K, 'Cryptocurrency regulations around the world' Investopedia, 31 July 2023 <https://www.investopedia.com/cryptocurrency-regulations-around-the-world-5202122> on 31 July 2023.

²⁵⁸ Oseghale E, 'Trade in cryptocurrency not illegal: CBK Governor' Mariblock, 7 September 2023 <https://www.mariblock.com/trade-in-cryptocurrency-not-illegal-cbk-governor/> on 7 September 2023.

cryptocurrencies for dematerialization and settlement. As seen established in *SEC v Shavers*,²⁵⁹ cryptocurrencies can be considered as securities. The issue of their anonymity, according to the Securities Exchange Commission, does not hinder their function as securities although this may pose a challenge in terms of regulation and traceability of transactions.²⁶⁰ To handle this, Li et al propose a solution that takes advantage of verifiable encryption and makes a tracing authority a passive entity.²⁶¹ This would enable users to carry out transactions without the need to register or provide their public keys to the tracing authority.²⁶² This will enable the transaction to remain anonymous except that the encrypted transaction information is included as part of the transaction.²⁶³ The tracing authority is only involved in tracing the transactions and has no access to any other information.²⁶⁴ By applying this solution, cryptocurrencies will be able to function as securities despite their anonymous nature.

As the cryptocurrency landscape continues to evolve, it is likely that Kenyan authorities will need to provide further clarity on the regulatory status of these digital assets. This will be crucial for addressing the potential risks associated with cryptocurrencies while also fostering innovation and facilitating their responsible use in the Kenyan financial market.

3.1.3. The Income Tax Act



The Income Tax Act establishes the framework for assessing, collecting, and enforcing income tax in the country. It covers the determination of taxable income, the administration of the tax system, and various other matters related to taxation.²⁶⁵ The Act is meant to have provisions that deal with tax matters. The Act does not define income but has made provision for the definition of "total income" as the aggregate income of an individual, excluding exemptions or income already subject to tax.²⁶⁶ It establishes income tax, applicable annually to all incomes, whether from residents or

²⁵⁹ *Securities Exchange Commission v Trendon T. Shavers and Bitcoin Savings and Trust* (2014), United States District Court for the Eastern District of Texas.

²⁶⁰ Li Y, Susilo W, Yang G, Yu Y, Du X, Liu D, and Guizan N, 'Toward privacy and regulation in blockchain-based cryptocurrencies' 33 *IEEE Network* 5, 2019, 115.

²⁶¹ Li et al, 'Toward privacy and regulation in blockchain-based cryptocurrencies', 115.

²⁶² Li et al, 'Toward privacy and regulation in blockchain-based cryptocurrencies', 115.

²⁶³ Li et al, 'Toward privacy and regulation in blockchain-based cryptocurrencies', 115.

²⁶⁴ Li et al, 'Toward privacy and regulation in blockchain-based cryptocurrencies', 115.

²⁶⁵ *The Income Tax Act* (Act No.16 of 1973).

²⁶⁶ Section 2, *The Income Tax Act* (Act No.16 of 1973).

non-residents, derived from or accrued in Kenya.²⁶⁷ Taxable income includes gains from business, employment, services, property rights, dividends, interest, pensions, charges, annuities, and withdrawals from registered funds.²⁶⁸ Notably, questions arise regarding the taxation of profits from transactions involving blockchain technology. While income from traditional modes is taxed, the treatment of digital currencies like Bitcoin in offsetting income tax remains a question due to their distinctive nature. The Act, however, does make mention of taxing incomes derived over the internet or an electronic network.²⁶⁹ The Act also provides for a digital service tax that taxes income derived from services through businesses that are over the internet or an electronic network including a digital marketplace.²⁷⁰ The Income Tax Act does not specifically mention cryptocurrencies nor does it mention blockchain technology.

Bitcoin traders have expressed concerns about whether the Kenya Revenue Authority (KRA) would consider accepting tax payments in the form of Bitcoin.²⁷¹ Cryptocurrencies, notably Bitcoin, have become real sources of income for online employment and services.²⁷² Transactions involving cryptocurrencies, facilitated by blockchain technology, fall into categories like business or employment, making them potentially subject to tax.²⁷³ However, some individuals, such as miners, have found ways to evade taxation by accumulating cryptocurrencies in offshore accounts.²⁷⁴ The Income Tax Act lacks a robust legal framework for income generated through cryptocurrency transactions, enabling aggressive tax evasion and avoidance. This underscores the importance of further research and scrutiny in this area. Taxation of income derived from cryptocurrency transaction is crucial, however, the first step is classifying its legal nature.

²⁶⁷ Section 3(1), *The Income Tax Act* (Act No.16 of 1973).

²⁶⁸ Section 3(2), *The Income Tax Act* (Act No.16 of 1973).

²⁶⁹ Section 3(2)(ca), *The Income Tax Act* (Act No.16 of 1973).

²⁷⁰ Section 12E (1), *The Income Tax Act* (Act No.16 of 1973).

²⁷¹ <https://www.businessdailyafrica.com/analysis/KRA-should-offer-clarity-on-how-to-tax-bitcoin-trading/539548-4185490-if6mn0/index.html> on 13 November 2017.

²⁷² Bonneau J, Miller A, Clark J, Narayanan A, Kroll JA, Felten EW, ‘Research perspectives and challenges for bitcoin and cryptocurrencies’ Academia.edu, 105.

²⁷³ Nyikuli EO, ‘Exploring financial inclusion in Kenya through cryptocurrencies: a case for a regulatory framework’, 35.

²⁷⁴ Baer K, De Mooij R, Hebous S and Keen M, ‘Crypto poses significant tax problems—and they could get worse’ IMF Blog, 5 July 2023 <https://www.imf.org/en/Blogs/Articles/2023/07/05/crypto-poses-significant-tax-problems-and-they-could-get-worse> on 5 July 2023.

3.1.4. The Law of Succession Act

This is an act that is aimed at amending, defining, and consolidating laws related to intestate and testamentary succession, along with the administration of estates of deceased persons.²⁷⁵ Its purpose is to provide a comprehensive legal framework for matters pertaining to inheritance, both when an individual passes away without a will (intestate) and when there is a testamentary document specifying the distribution of assets.²⁷⁶ The Act addresses various aspects of succession and estate administration, ensuring clarity and coherence in the legal procedures surrounding the transfer of assets after a person's death.

The Act provides for the definition of “estate” which means the “free property of a deceased person”.²⁷⁷ This Act defines “free property” as “the property of which that person was legally competent freely to dispose during his lifetime, and in respect of which his interest has not been terminated by his death”.²⁷⁸ This Act does not specifically mention cryptocurrencies or assets of a digital nature at all. As discussed in previous chapters, it has been seen that cryptocurrency has the potential to be considered legal property. The Act, however, does not mention how property of digital nature such as cryptocurrency can be disposed of upon death and how beneficiaries are to access these assets. By stating that cryptocurrencies can be considered legal property, it can fall within the purview of this Act, however, failure to cater for cryptocurrency inheritance matters shows that the Law of Succession Act is not capable of handling cryptocurrency inheritance matters.



3.1.5. The Finance Act

The Finance Act aims to amend existing laws related to various taxes and duties.²⁷⁹ Its primary purpose is to introduce modifications and adjustments to the current taxation framework, addressing specific aspects of tax laws and associated duties. The Act covers changes or updates across different tax categories and related matters, with a focus on ensuring the effectiveness and relevance of taxation regulations. The Act introduces a digital asset tax on income derived from

²⁷⁵ *The Law of Succession Act* (Act No.14 of 1972).

²⁷⁶ Section 2 (1), *The Law of Succession Act* (Act No.14 of 1972).

²⁷⁷ Section 3, *The Law of Succession Act* (Act No.14 of 1972).

²⁷⁸ Section 3, *The Law of Succession Act* (Act No.14 of 1972).

²⁷⁹ *The Finance Act*, (Act No. 4 of 2023).

exchange or transfer of digital assets on a digital platform.²⁸⁰ The Act goes on further to define digital assets and includes cryptocurrencies in the definition.²⁸¹

This new tax is a step towards the law in Kenya recognising cryptocurrencies as assets. There has been opposition to the new tax by various actors in the Kenyan cryptocurrency realm. The Blockchain Association of Kenya (BAK) recently petitioned the court challenging the legality of the digital asset tax.²⁸² This has prompted the National Assembly of Kenya to task the BAK with drafting a new bill, “Virtual Asset Service Provider's Bill” to handle matters to do with virtual assets.²⁸³

This new tax definitely shows a positive step towards the acceptance of cryptocurrency within the Kenyan legal space.

3.1.6. The Insolvency Act



The Insolvency Act consolidates laws concerning the insolvency of individuals, both natural persons and entities (incorporated and unincorporated).²⁸⁴ Its objectives include regulating the bankruptcy of individuals, offering alternative procedures to bankruptcy for managing affairs of insolvent individuals, and providing for the liquidation of entities, including those that may be solvent. The act introduces measures for the administration of insolvent entities' affairs to benefit creditors and addresses related and incidental matters within the context of insolvency.

The Insolvency Act defines "amount" as money and "property" to encompass money, goods, choses in action, land, and various forms of property, both real and personal, located both in Kenya and in other parts of the world including obligations, easements, and diverse estates or interests.²⁸⁵ However, the Act does not explicitly state whether cryptocurrencies fall under the definition of

²⁸⁰ Section 10, *The Finance Act*, (Act No. 4 of 2023).

²⁸¹ Section 10, *The Finance Act*, (Act No. 4 of 2023).

²⁸² Adeyemo S, ‘Blockchain Association of Kenya drags government to court over crypto tax’ Mariblock, 3 September 2023 <https://www.mariblock.com/blockchain-association-of-kenya-drags-government-to-court-over-digital-assets-tax/> on 3 September 2023.

²⁸³ Oritsejolomi O, ‘Kenyan blockchain experts to formulate crypto regulation’ Benjamindada.com, 9 November 2023 <https://www.benjamindada.com/kenya-crypto-act-bak/> on 9 November 2023.

²⁸⁴ *The Insolvency Act* (Act No. 8 of 2015).

²⁸⁵ Section 2, *The Insolvency Act* (Act No. 8 of 2015).

money within its bankruptcy procedures and offenses. An in-depth examination of the Act is needed to ascertain the inclusion of cryptocurrencies as assets subject to bankruptcy proceedings, thereby exploring the connection between cryptocurrencies and bankruptcy.

Section 13 of the Act outlines the nature of bankruptcy, indicating that if someone is adjudged bankrupt, their property, including money, devolves to a bankruptcy trustee or an Official Receiver.²⁸⁶ This poses challenges with cryptocurrencies, as their anonymous ownership and transactions can allow a bankrupt individual to conceal assets.²⁸⁷ Additionally, the requirement for an e-wallet for the bankruptcy trustee or Official Receiver raises practical concerns. The provision further restricts the bankrupt from participating in any business activities.²⁸⁸ The summarized analysis focuses on the potential issues arising from the application of bankruptcy procedures to cryptocurrencies under this section.

Cryptocurrency mining, being highly anonymous, provides an avenue to evade the provisions of bankruptcy laws by engaging in businesses with anonymity or converting assets into cryptocurrencies.²⁸⁹ The legislation's inadequacy is exemplified by the provision allowing the Official Receiver to recover assets transferred within two years preceding bankruptcy.²⁹⁰ Retrieving cryptocurrency is practically impossible due to the irreversible nature of blockchain transfers.²⁹¹ While transferring to a known party with an e-wallet is feasible,²⁹² the challenge lies in the difficulty of recovering cryptocurrency if the recipient uses an untraceable proxy name, presenting a significant hurdle for the Official Receiver or bankruptcy trustee.

²⁸⁶ Section 13, *The Insolvency Act* (Act No. 8 of 2015).

²⁸⁷ Carter T, Evison T and Trott L, 'Crypto assets in insolvency- key features and points to consider' Stevens and Bolton, 4 April 2023 <https://www.stevens-bolton.com/site/insights/articles/crypto-assets-in-solvency-key-features-and-points-to-consider> on 4 April 2023.

²⁸⁸ Section 13(2)(b), *The Insolvency Act* (Act No. 8 of 2015).

²⁸⁹ <https://syntheticdrugs.unodc.org/syntheticdrugs/en/cybercrime/laundryingproceeds/moneylaundering.html> on 25 November 2023.

²⁹⁰ Section 13(2)(c), *The Insolvency Act* (Act No. 8 of 2015).

²⁹¹ Mabunda S, 'Cryptocurrency: The new face of cyber money laundering' International Conference on Advances in Big Data, Computing and Data Communication Systems (icABCD), Durban, 16 September 2018, 3.

²⁹² Suratkar S, Shirole M and Bhirud S, 'Cryptocurrency wallet: A review' International Conference on Computer, Communication and Signal Processing (ICCCSP), Chennai, 28 September 2020, 6.

3.1.7. The Proceeds of Crime and Anti Money Laundering Act

The Proceeds of Crime and Anti-Money Laundering Act was enacted to address the offense of money laundering, introducing measures to combat and prevent it.²⁹³ The Act covers the identification, tracing, freezing, seizure, and confiscation of proceeds from criminal activities. It is designed to target financially motivated crimes, including corruption and fraud. Kenya, facing challenges of corruption and white-collar crimes, particularly money laundering, has implemented this legislation to address and mitigate such offenses.

Given the increasing prominence of cryptocurrencies in Kenya's financial landscape, it's essential to assess the Proceeds of Crime and Anti-Money Laundering Act in the context of emergent financial technologies.²⁹⁴ The Act, which addresses offenses related to money, warrants a thorough analysis to determine its potential applicability and regulatory impact on blockchain technologies. The Act's definition of monetary instruments includes legal tender, traveler's cheques, various types of cheques, money orders, securities, and other negotiable instruments.²⁹⁵ This highlights the Act's broad scope in covering traditional and potentially digital financial instruments.

The Proceeds of Crime and Anti-Money Laundering Act primarily addresses offenses related to traditional monetary instruments such as coins, paper currency, cheques, and money orders. The Act's definition of monetary instruments excludes cryptocurrencies, which are virtual and differ from traditional negotiable instruments. The Act focuses on recognized legal tender by the Central Bank of Kenya, emphasizing conventional forms of currency.²⁹⁶ While the Act broadly covers property, including various forms of real or personal property, it lacks clarity on whether cryptocurrencies specifically fall within its scope. The Act currently does not explicitly recognize or regulate cryptocurrencies as part of monetary instruments or property.

The term "proceeds of crime" under the Proceeds of Crime and Anti-Money Laundering Act encompasses any property or economic advantage obtained, directly or indirectly, in connection

²⁹³ *The Proceeds of Crime and Anti Money Laundering Act* (Act No. 9 of 2009).

²⁹⁴ <https://www.theeastafrican.co.ke/tea/business/rise-of-cryptocurrencies-in-africa-that-s-both-good-news-and-bad-3892420> on 26 July 2022.

²⁹⁵ Section 2, *The Proceeds of Crime and Anti Money Laundering Act* (Act No. 9 of 2009).

²⁹⁶ Section 2, *The Proceeds of Crime and Anti Money Laundering Act* (Act No. 9 of 2009).

with an offense.²⁹⁷ This definition extends to property into which the proceeds of crime were converted, transformed, or intermingled, and it includes income, capital, or other economic gains derived from such property starting from the time the offense was committed.²⁹⁸ In essence, it covers a wide range of assets and benefits obtained through criminal activities.

The definition of "proceeds of crime" in the Act includes both monetary instruments and property.²⁹⁹ While there is an understanding that the term "monetary instruments" might exclude cryptocurrencies, the definition of property is problematic and unclear regarding whether it encompasses cryptocurrency. This ambiguity leaves room for potential misuse of cryptocurrency within the framework of the Act. The Act does not explicitly define "economic advantage," creating further ambiguity that could potentially allow for the inclusion of cryptocurrencies due to their economic value and their ability to be converted, transformed, or intermingled in the blockchain, posing risks of money laundering. Cryptocurrencies, being virtual and incorporeal,³⁰⁰ could be considered part of the broadly defined term "property" under the Act, making them susceptible to offenses and aligning with other jurisdictions that define cryptocurrencies as taxable property.³⁰¹ The Act's language introduces uncertainty regarding the treatment of cryptocurrencies within its framework, possibly leaving them open to inclusion in offenses related to money laundering.

Certain offenses under the Proceeds of Crime and Anti-Money Laundering Act are formulated in a way that excludes "property" and explicitly includes "monetary instruments".³⁰² Consequently, offenses involving cryptocurrency may not be anticipated under the Act, as it primarily focuses on traditional forms of monetary instruments. The key offense, money laundering, warns against transactions involving property that is part of or proceeds from a crime, where the intent is to conceal its nature, source, location, disposition, movement, or ownership.³⁰³ The Act emphasizes preventing individuals involved in such offenses from avoiding prosecution or diminishing

²⁹⁷ Section 2, *The Proceeds of Crime and Anti Money Laundering Act* (Act No. 9 of 2009).

²⁹⁸ Section 2, *The Proceeds of Crime and Anti Money Laundering Act* (Act No. 9 of 2009).

²⁹⁹ Section 2, *The Proceeds of Crime and Anti Money Laundering Act* (Act No. 9 of 2009).

³⁰⁰ Low KFK and Hara M, 'Cryptoassets and property' Social Science Research Network, 2022, 7.

³⁰¹ Luc JA, 'Here's an overview of cryptocurrency taxation in Europe in 2023' Cointribune, 10 July 2023 <https://www.cointribune.com/en/tour-deurope-de-la-fiscalite-des-cryptomonnaies-en-2023-2/> on 10 July 2023.

³⁰² Second Schedule, *The Proceeds of Crime and Anti Money Laundering Act* (Act No. 9 of 2009).

³⁰³ Section 3, *The Proceeds of Crime and Anti Money Laundering Act* (Act No. 9 of 2009).

property acquired through criminal activities. The Act's language may limit its direct applicability to offenses involving cryptocurrency.

Cryptocurrency aligns with the description of property under the Act and can potentially become the subject of offenses, particularly money laundering. Cryptocurrency's characteristics, including its use as a medium of exchange and its presence on highly anonymous blockchains, make it conducive for concealing the nature, source, location, movement, and ownership of property involved in criminal activities.³⁰⁴ The anonymity and irreversibility of cryptocurrency transactions contribute to their potential use in hiding proceeds of crime, as converting traditional monetary instruments into cryptocurrency allows for untraceable and highly anonymous transactions.³⁰⁵

The offense of acquisition, possession, or use of proceeds of a crime under the Act includes both monetary instruments and property,³⁰⁶ potentially encompassing cryptocurrencies as property. Proving the use of cryptocurrencies can be challenging due to the anonymity of blockchain systems, but acquisition and use can be considered sufficient evidence with knowledge of the nature of the property can be considered sufficient evidence as per Section 4 of the Act.³⁰⁷ The third relevant offense is the financial promotion of an offense, criminalizing the transfer and receipt of monetary instruments or anything of value with the intent to commit an offense.³⁰⁸ The Act's lack of a precise definition for "anything of value"³⁰⁹ introduces ambiguity that could include cryptocurrencies, considering their inherent economic value and potential use in facilitating crimes such as terrorism and fraud.

Based on this analysis, it is clear that the current status of cryptocurrency inheritance in Kenya is more of non-existent and with more and more people beginning to invest in crypto assets, there is

³⁰⁴ Dyntu V and Dykyi D, 'Cryptocurrency in the system of money laundering' 4 *Baltic Journal of Economic Studies* 5, 2018, 75.

³⁰⁵ Dyntu V and Dykyi D, 'Cryptocurrency in the system of money laundering', 75.

³⁰⁶ Section 4, *The Proceeds of Crime and Anti Money Laundering Act* (Act No. 9 of 2009).

³⁰⁷ Section 4, *The Proceeds of Crime and Anti Money Laundering Act* (Act No. 9 of 2009).

³⁰⁸ Section 7, *The Proceeds of Crime and Anti Money Laundering Act* (Act No. 9 of 2009).

³⁰⁹ Section 7, *The Proceeds of Crime and Anti Money Laundering Act* (Act No. 9 of 2009).

a need for the government to establish a legal framework that protects the rights of cryptocurrency users as well as recognises them.

CHAPTER FOUR

A CASE FOR THE ADOPTION OF A LEGAL FRAMEWORK TO GOVERN CRYPTOCURRENCY INHERITANCE IN KENYA

4.0. INTRODUCTION

With the growing number of cryptocurrency users in Kenya, there is a need to ensure that their property rights inclusive of inheritance rights are recognised and protected by the government of Kenya.

This chapter will look at whether it is in the best interest of the people of Kenya for the government to establish a legal framework that looks at governing cryptocurrency inheritance as well as the recognition of cryptocurrency as legal property. To do so, this chapter will examine the legal framework of the United States of America on the governance of cryptocurrency inheritance and the place of cryptocurrency in the law. This chapter will also look at the lessons that Kenya can learn from the United States on how to govern cryptocurrency inheritance and cryptocurrencies.

4.1. THE UNITED STATES OF AMERICA LEGAL FRAMEWORK ON CRYPTOCURRENCY

4.1.1. The Internal Revenue Service Notice 2014-21

The notice provides guidance on how existing general tax principles apply to transactions using virtual currency and it does so by answering frequently asked questions (FAQs) about various aspects of virtual currency taxation.³¹⁰

According to this notice, the Internal Revenue Service considers virtual currencies as property and not currencies.³¹¹ Thus, the tax principles that apply to transactions involving traditional forms of property also apply to transactions involving virtual currencies.³¹²

³¹⁰ Section 1, *Internal Revenue Service Notice 2014-21* (The United States of America).

³¹¹ Section 4, *Internal Revenue Service Notice 2014-21* (The United States of America).

³¹² Section 4, *Internal Revenue Service Notice 2014-21* (The United States of America).

4.1.2. The Revised Uniform Fiduciary Access to Digital Assets Act

This Act is designed to permit account holders with digital assets to authorize access for fiduciaries such as executors, agents, conservators, and trustees.³¹³ It establishes default rules for fiduciary access and grants immunity from liability to custodians who comply with a fiduciary's authorised request for access. In essence, this Act facilitates the management and access to digital assets by legally empowering fiduciaries while providing safeguards for custodians who adhere to authorised access requests.

According to this Act, digital assets are defined as “an electronic record in which an individual has a right or interest”.³¹⁴ This essentially encompasses cryptocurrencies because they are electronic records on the blockchain and the individuals who own them have a right or interest in them.³¹⁵ This Act applies to fiduciaries acting under a will, trustees acting under a trust, and a personal representative acting for a decedent who died before or after the Act was enacted.³¹⁶

This Act provides that an owner of digital assets may use an online tool to direct a custodian of his or her digital assets to disclose or not to disclose to a designated recipient some or all of his or her digital assets. This direction overrides a contrary direction by the owner in a will, power of attorney, or other record, as well as a contrary provision in a terms-of-service agreement.³¹⁷

This Act outlines the process for a personal representative to access a deceased user's digital assets, excluding the content of their electronic communications. The custodian of the digital assets is obligated to disclose a catalogue of the user's digital assets and electronic communications sent or received unless the user previously prohibited disclosure or a court order directs otherwise.

³¹³ Section 2, Chapter 25, *Revised Uniform Fiduciary Access to Digital Assets Act* (The United States of America).

³¹⁴ Section 21- 2502, Chapter 25, *Revised Uniform Fiduciary Access to Digital Assets Act* (The United States of America).

³¹⁵ Babie P, Brown D, Catterwell R and Giancaspro M, ‘Cryptocurrencies as property: *Ruscoe and Moore v Cryptopia Limited* (In Liquidation) [2020] NZHC 728’ Social Science Research Network, 2020, 3.

³¹⁶ Section 21- 2503, Chapter 25, *Revised Uniform Fiduciary Access to Digital Assets Act* (The United States of America).

³¹⁷ Section 21- 2504, Chapter 25, *Revised Uniform Fiduciary Access to Digital Assets Act* (The United States of America).

The representative must provide the custodian with:³¹⁸

- A written request for disclosure.
- A certified copy of the user's death certificate.
- Proof of their appointment as the representative, such as a court order or small-estate affidavit.
- If requested by the custodian:
 - Account identifier for the user's account.
 - Evidence associating the account with the user.
 - An affidavit stating the necessity of disclosing the digital assets for estate administration.
 - A court finding confirming the user's account or the necessity of disclosure for estate administration.

The enactment of this Act marks a significant step forward in the United States, as it establishes clear guidelines for beneficiaries to access the crypto-assets of deceased individuals. This is especially poignant as currently 46 out of the 50 states of America have adopted the Act and thus companies such as Coinbase, Anchorage, Casa and so have gone on to provide digital asset custodian services.³¹⁹ In as much as this Act is relatively new, there have not been any court cases relating to the implementation of the Act in relation to cryptocurrencies in court. However, the Act has been applied in the case of *In the Matter of the Estate of Ricardo Alberto Serrano*³²⁰, the court applied the Act in order to establish that a custodian had a duty to provide the fiduciary with access to the deceased' digital assets as it was reasonably necessary for the administration of the estate.³²¹ In the same vein, cryptocurrencies, falling within the definition of digital assets under this Act, have the ability to be inherited and thus the Act can apply to them.³²²

³¹⁸ Section 21- 2508, Chapter 25, *Revised Uniform Fiduciary Access to Digital Assets Act* (The United States of America).

³¹⁹ Craig T, 'Got cryptocurrency or NFTs? They need to be in your estate plan' Kiplinger, 23 May 2022 <https://www.kiplinger.com/investing/cryptocurrency/604706/got-cryptocurrency-or-nfts-they-need-to-be-in-your-estate-plan> on 23 May 2022.

³²⁰ *In the matter of the estate of Ricardo Alberto Serrano* (2017), Surrogate's Court, New York County.

³²¹ *In the matter of the estate of Ricardo Alberto Serrano* (2017), Surrogate's Court, New York County.

³²² BNY Mellon Wealth Management, *Cryptocurrency in estates and trust*, 2022, 4-5.

4.1.3. Securities Exchange Commission v Trendon T. Shavers and Bitcoin Savings and Trust

The SEC v. Shavers case was a pivotal moment in the legal landscape of cryptocurrencies.³²³ The case revolved around the classification of Bitcoin Savings and Trust (BTCST) investments as securities under federal securities laws. The SEC argued that BTCST investments were securities due to their resemblance to investment contracts, while Shavers contested that they were not.³²⁴

The court's ruling in favour of the SEC established a precedent for treating cryptocurrencies as securities under federal securities laws.³²⁵ This means that cryptocurrencies are subject to the same anti-fraud and disclosure requirements as traditional securities.³²⁶ This landmark case has significant implications for cryptocurrency investments, emphasizing the need for investors to exercise caution and thoroughly assess the risks associated with these digital assets.³²⁷ The ruling also suggests increased scrutiny of cryptocurrency exchanges and businesses operating in the cryptocurrency industry to ensure compliance with federal securities laws. The SEC v. Shavers case serves as a reminder of the evolving regulatory landscape surrounding cryptocurrencies and the importance of understanding the legal framework before investing.

4.1.4. The Securities Exchange Act of 1934

This is a United States federal Act that is aimed at regulating securities exchanges and markets to prevent unfair practices, ensuring fairness and transparency in interstate and foreign commerce.³²⁸

This Act provides that cryptocurrencies fall within its ambit.³²⁹ This is as per the ruling of SEC v. Shavers.³³⁰ Section 10(b) of the Act provides that all transactions of securities including

³²³ Kethineni S and Cao Y, 'The rise in popularity of cryptocurrency and associated criminal activity' 30 *International Criminal Justice Review* 3, 2019, 5.

³²⁴ *Securities Exchange Commission v Trendon T. Shavers and Bitcoin Savings and Trust* (2014), United States District Court for the Eastern District of Texas.

³²⁵ <https://www.sec.gov/litigation/litreleases/lr-23090>, United States Securities and Exchange Commission.

³²⁶ Section 10(b), Chapter 404, *Securities Exchange Act* (The United States of America).

³²⁷ Albert MR and Colesanti JS, 'Cryptocurrency meets bankruptcy law: A call for creditor status for investors in initial coin offerings' 36 *Georgia State University Law Review* 2, 2020, 248.

³²⁸ Chapter 404, *Securities Exchange Act* (The United States of America).

³²⁹ Section 10(b), Chapter 404, *Securities Exchange Act* (The United States of America).

³³⁰ *Securities Exchange Commission v Trendon T. Shavers and Bitcoin Savings and Trust* (2014), United States District Court for the Eastern District of Texas.

cryptocurrencies are subject to anti-fraud and disclosure requirements regardless of whether they are registered or not.³³¹

According to this Act, the definition of securities includes an investment contract.³³² An investment contract is a formal agreement between two parties in which one invests money hoping to get a return or financial reward.³³³ The criteria for something to be determined an investment contract is that there should be the investment of money in a common enterprise with a reasonable expectation of profits to be derived from the efforts of others.³³⁴ These criteria is called the Howey Test and it applies to anything that may have the characteristics of a security.³³⁵ This test was established in the case of *SEC v. WJ. Howey Co.*³³⁶

It can be seen that cryptocurrencies fulfil these criteria. Regarding the requirement of investment in a common enterprise, cryptocurrencies fulfil this as a digital asset because of the sale and offer aspect of cryptocurrency transactions.³³⁷ In terms of the common enterprise aspect, cryptocurrency transactions are often carried out on exchanges which can be constituted as a common enterprise.³³⁸ This is because cryptocurrency users pay a small fee to these exchanges in order to invest in certain cryptocurrencies.³³⁹ “A common enterprise” may also include initial coin offerings and Decentralised Finance (DeFi) protocols whereby investors pool their money to invest in a specific cryptocurrency.³⁴⁰ When it comes to the requirement of reasonable expectation of profits to be derived from the efforts of others, it can be seen that cryptocurrencies fulfil this as well. This is because most cryptocurrency transactions occur with the reasonable expectation that a profit will be gained.³⁴¹ As regards the derivation from the efforts of others, cryptocurrency users

³³¹ Section 10(b), Chapter 404, *Securities Exchange Act* (The United States of America).

³³² Section 3, Chapter 404, *Securities Exchange Act* (The United States of America).

³³³ <https://legamart.com/articles/investment-contract/> on 16 March 2023.

³³⁴ <https://www.sec.gov/corpfin/framework-investment-contract-analysis-digital-assets> on 8 March 2023.

³³⁵ Henderson TM and Raskin M, ‘A regulatory classification of digital assets: Toward an operational Howey test for cryptocurrencies, ICOs, and other digital assets’ 2019 *Columbia Business Law Review* 1, 2019, 450.

³³⁶ *Securities and Exchange Commission v WJ Howey Co.* (1946), United States Supreme Court.

³³⁷ <https://www.sec.gov/corpfin/framework-investment-contract-analysis-digital-assets> on 8 March 2023.

³³⁸ <https://phemex.com/academy/what-is-howey-test> on 17 October 2022.

³³⁹ Maheshwari R, ‘What are crypto exchanges and how do they work’ Forbes Advisor, 30 June 2023 <https://www.forbes.com/advisor/in/investing/cryptocurrency/what-is-a-crypto-exchange/#:~:text=A%20cryptocurrency%20exchange%20works%20similarly,functions%20similarly%20like%20e%2Dbrokerages>. on 30 June 2023.

³⁴⁰ Bains A, ‘Howey Test, explained’ CCN, 19 July 2023 <https://www.ccn.com/education/howey-test-definition/> on 19 July 2023.

³⁴¹ Manahov V, ‘The rapid growth of cryptocurrencies: How profitable is trading in digital money?’ 28 *International Journal of Finance and Economics* 4, 2023, 1.

expect to derive profit from their investments that come about as a result of the efforts of the creators of the cryptocurrencies and their developer teams.³⁴²

It should be noted that the Howey test is applied to cryptocurrencies on a case by case analysis and thus there is need to create a legal test that is geared at handling the unique nature of cryptocurrencies.³⁴³

4.2. EFFECTS OF ESTABLISHING A LEGAL FRAMEWORK TO GOVERN CRYPTOCURRENCY INHERITANCE.

This will lead to increased legal clarity and certainty regarding the place of cryptocurrency inheritance.³⁴⁴ By establishing a clear legal framework for inheritance of cryptocurrency, a state can provide clear rules and procedures for the inheritance of cryptocurrencies and this reduces potential disputes between beneficiaries of a deceased as well as how to access the crypto- assets³⁴⁵ as well as resolving ambiguities as to cryptocurrency's place in the law in terms of enforceability and predictability of one's rights over them.³⁴⁶

Establishing a legal framework to govern cryptocurrency inheritance can encourage international harmonisation.³⁴⁷ Given the global nature of the cryptocurrency market, international cooperation and harmonisation of legal frameworks would be beneficial.³⁴⁸ This ensures consistency and clarity for individuals holding and inheriting cryptocurrencies across different jurisdictions.³⁴⁹



³⁴² <https://phemex.com/academy/what-is-howey-test> on 17 October 2022.

³⁴³ Hayes A, 'Does crypto pass the Howey test?' Investopedia, 27 November 2023 <https://www.investopedia.com/does-crypto-pass-the-howey-test-8385183#:~:text=The%20Howey%20test%20consists%20of,against%20crypto%20passing%20the%20test.> on 27 November 2023.

³⁴⁴ Adrian T, He D, Ismail A and Moretti M, 'Crypto needs comprehensive policies to protect economies and investors' IMF Blog, 18 July 2023 <https://www.imf.org/en/Blogs/Articles/2023/07/18/crypto-needs-comprehensive-policies-to-protect-economies-and-investors> on 18 July 2023.

³⁴⁵ Klasiček D, 'Inheritance law in the twenty-first century: New circumstances and challenges' ResearchGate, 2023, 245.

³⁴⁶ Adrian T, He D, Ismail A and Moretti M, 'Crypto needs comprehensive policies to protect economies and investors' IMF Blog, 18 July 2023 <https://www.imf.org/en/Blogs/Articles/2023/07/18/crypto-needs-comprehensive-policies-to-protect-economies-and-investors> on 18 July 2023.

³⁴⁷ Davydova I, Didenko L and Tomina V, 'Legal nature and inheritance of virtual property in Ukraine and the world: Current statutes, problems, prospects' 10 *Ius Humani* 2, 2021, 19.

³⁴⁸ Davydova I, Didenko L and Tomina V, 'Legal nature and inheritance of virtual property in Ukraine and the world: Current statutes, problems, prospects', 19.

³⁴⁹ Volos AA, 'Digitalization of society and objects of hereditary succession' 3 *Legal Issues in the Digital Age* 3, 2022, 77-78.

By establishing a legal framework to govern cryptocurrency inheritance, a state can widen its tax base.³⁵⁰ Laws that deal with cryptocurrency inheritance can provide guidance on how crypto-assets are taxed and this reduces cases of tax evasion and tax avoidance through ensuring tax compliance.³⁵¹ This also enables the state to define cryptocurrencies in the law in order to easily tax them.³⁵²

A legal framework that provides for cryptocurrency inheritance will enable cryptocurrencies to be disposed adequately in the cases of the death of the cryptocurrency owner.³⁵³ This will ensure the rules of testamentary freedom and inheritance by succession are practiced to their fullest extent.³⁵⁴ This will hence protect the heirs and beneficiaries of cryptocurrency owners that have passed on.³⁵⁵

A legal framework for cryptocurrency inheritance will protect the beneficiaries of the deceased cryptocurrency owner.³⁵⁶ Such a framework will provide avenues for the beneficiaries to challenge unfair distribution of crypto-assets.³⁵⁷ It will also ensure that the testamentary wishes of the deceased cryptocurrency owner are upheld.³⁵⁸

Establishing a legal framework for cryptocurrency inheritance will encourage cryptocurrency owners to plan for their assets and estate administration upon their death.³⁵⁹ Such a legal framework will solve the issue of crypto-assets that are permanently lost due to the death of their owners who die without creating a will or providing informal instructions as to how to dispose of those assets upon their death.³⁶⁰



³⁵⁰ <https://www.cripps.co.uk/thinking/cryptocurrencies-taxation-and-the-new-kid-on-the-blockchain/> on 1 May 2019.

³⁵¹ Tang VE and Zhang TQ, 'Regulation, Tax, and Cryptocurrency Pricing' Social Science Research Network, 2022,4.

³⁵² Ripley BY and Heindler F, 'The law applicable to crypto assets: What policy choices are ahead of us?' BRILL, 2023, 269.

³⁵³ Volos AA, 'Digitalization of society and objects of hereditary succession', 84.

³⁵⁴ Volos AA, 'Digitalization of society and objects of hereditary succession', 84.

³⁵⁵ Volos AA, 'Digitalization of society and objects of hereditary succession', 77.

³⁵⁶ <https://www.burnesspaul.com/insights-and-events/news/what-is-a-crypto-asset> on 21 June 2019.

³⁵⁷ Baser MO, 'Cryptocurrency holders' rights under Turkish private law: Do we need new laws or regulations?' 7 *Baku State University Law Review* 2, 2021, 166.

³⁵⁸ Baser MO, 'Cryptocurrency holders' rights under Turkish private law: Do we need new laws or regulations?', 166.

³⁵⁹ Scaniffe N, 'A new gold rush: How trust law can incentivize prudent cryptocurrency estate planning and increase state revenue' 36 *Quinnipiac Probate Law Journal* 2, 2023, 187.

³⁶⁰ Scaniffe N, 'A new gold rush: How trust law can incentivize prudent cryptocurrency estate planning and increase state revenue', 186-187.

4.3. LESSONS KENYA CAN LEARN FROM THE UNITED STATES OF AMERICA

Kenya and the USA, both being countries that are under the Common Law system,³⁶¹ can serve to aid one another in the adoption of regulatory frameworks. There are many lessons that Kenya can learn from the USA in terms of how to treat cryptocurrencies under the law in terms of regulating inheritance matters as well as how to classify them.

The USA has been among the few countries in the world to establish a legal framework that caters to regulating cryptocurrency and defining it as legal property.³⁶² This is especially important as cryptocurrencies especially Bitcoin have been largely embraced by a large portion of the population of the USA and numerous USA businesses such as Dell, Subway, Microsoft to name a few.³⁶³

Kenya can emulate the USA by defining cryptocurrency as legal property. By defining cryptocurrencies within the realm of property, the government of Kenya will be able to easily establish rules for its inheritance and enable access to the beneficiaries of the deceased. The USA has been able to easily tax crypto assets due the fact that they have been defined under the law as property.³⁶⁴ This legal framework can also give cryptocurrencies legitimacy and give cryptocurrency investors in Kenya the confidence to invest with the assurance of government protection of their assets.³⁶⁵

The Kenyan government can emulate the USA by establishing a legal framework that caters to regulating cryptocurrency inheritance. Such a regulatory framework will provide protection to the beneficiaries of the deceased cryptocurrency user as well as providing guidelines on how to access these assets.³⁶⁶ Such a regulatory framework will also deal with inheritance tax for cryptocurrency which widens the tax base of the country.³⁶⁷

³⁶¹ Hauser P and Carthen S, 'English Common Law | Definition, history & examples' Study.com, 21 November 2023 <https://study.com/learn/lesson/what-is-english-common-law.html> on 21 November 2023.

³⁶² Budak T and Yilmaz G, 'Taxation of virtual/crypto assets/currencies' 30 *Sosyoekonomi* 52, 2022, 51.

³⁶³ Deepika E, Puneet E and Kaur R, 'Cryptocurrency: trends, perspectives and challenges' 4 *International Journal of Trend in Research and Development* 4, 2017, 5-6.

³⁶⁴ Section 1, *Internal Revenue Service Notice 2014-21* (The United States of America).

³⁶⁵ Ligami E and Sang K, 'Cryptocurrency: Towards a legal framework in Kenya?' SCP, 3 April 2018 <https://sangchambers.co.ke/cryptocurrency-towards-a-legal-currency-in-kenya/> on 3 April 2018.

³⁶⁶ Klasiček D, 'Inheritance law in the twenty-first century: New circumstances and challenges', 245.

³⁶⁷ <https://www.cripps.co.uk/thinking/cryptocurrencies-taxation-and-the-new-kid-on-the-blockchain/> on 1 May 2019.

All in all, Kenya would lose nothing by emulating the USA because the USA has made great steps to embrace cryptocurrencies.³⁶⁸ It would serve Kenya well to establish a legal framework for cryptocurrency inheritance as it protects the users of cryptocurrencies as well as enables the country to greatly benefit from them in terms of tax and so on.

³⁶⁸ Deepika E, Puneet E and Kaur R, 'Cryptocurrency: trends, perspectives and challenges', 5.

CHAPTER FIVE

RECOMMENDATIONS AND CONCLUSION

5.0. INTRODUCTION

This chapter reflects on the findings of this study as they were developed and broken down in the previous chapters. This chapter will make recommendations as to what Kenya should do regarding the regulation of cryptocurrency inheritance and finally it will provide a conclusion to the research paper.

5.1. SUMMARY OF THE FINDINGS

This study scrutinised the concept of cryptocurrencies and how they are perceived in the world as well as the fact that it is a growing trend to invest in it around the world and especially in Kenya.

Chapter one dealt with the clear need for Kenya to establish a legal framework that caters to cryptocurrency inheritance. It also illustrated the problems that Kenya is facing as a result of not understanding this concept in its entirety as well its failure to establish a legal framework that caters to cryptocurrency inheritance. This chapter also laid out the objectives of the research, established the specific questions to be researched, reviewed relevant literature, and laid out the theoretical framework of the study. The first research question sought to determine if cryptocurrency can be defined as legal property. The second research question sought to examine the current status regarding inheritance of cryptocurrency in Kenya and the third research question sought to determine whether Kenya should adopt a legal framework to govern the inheritance of cryptocurrencies.

Chapter two analysed the history of cryptocurrency, assessing what it is and how it works, as well as, its nature as an asset as well and finally whether it can be classified as legal property. It also looked at the advantages of cryptocurrencies. In this chapter, it was found that cryptocurrencies can be classified as legal property, however, it would be best to create a new category of property that encompasses the features of crypto assets.

Chapter three discussed the current status regarding status regarding the inheritance of cryptocurrencies in Kenya and whether the Kenyan legal framework is equipped to handle the

governance of cryptocurrencies and their inheritance. In this chapter, it was found that the current status regarding the inheritance of cryptocurrencies in Kenya is undefined and the legal framework of Kenya is ill equipped to govern cryptocurrencies.

Chapter four discussed the legal framework of the USA in governance of cryptocurrencies and their inheritance as well the effects of establishing a legal framework to govern cryptocurrency inheritance and what lessons Kenya can learn from the USA on the governance of cryptocurrency inheritance. It was found that it would be in the best interest of the Kenyan government and Kenyan citizens to establish a legal framework that caters to governing the inheritance of cryptocurrencies.

Chapter five, the present chapter, concludes the analysis of this study by summarizing the findings and offers recommendations to address the present dilemma of the lack of a legal framework for cryptocurrency inheritance as well as the classification of cryptocurrency as property in Kenya.

5.2. RECOMMENDATIONS

This study proposes two recommendations.

The definition of cryptocurrency under Kenyan law.

With regards to the classification of cryptocurrency, as has previously been established in chapter two, cryptocurrency can fall within the ambit of legal property and thus can be inherited. However, it has been noted that cryptocurrency has unique features that make it different from traditional forms of property and thus, there have been suggestions to create a new category of property that caters to those unique features as well as various other digital assets. This study recommends that Kenya undertakes the decision to research further on how cryptocurrency can be adequately defined as property within the law. This will aid in further understanding the concept of cryptocurrencies as well as how its inheritance can be provided for in Kenya.

The establishment of a Kenyan legal framework to govern the inheritance of cryptocurrency.

This study recommends that Kenya establishes a legal framework that caters to cryptocurrency inheritance law. As seen with the USA, such a legal framework would only serve to benefit Kenya greatly especially cryptocurrency investors in Kenya as well as enabling the government to apply taxes to crypto assets. Given the unique nature of cryptocurrencies, it is recommended that Kenya should enact an Act that deals with the definition and classification of cryptocurrencies as well as

how they can be disposed by a cryptocurrency user upon his or her death. This Act should also deal with how the beneficiaries of the deceased can access the crypto assets and how they challenge unfair distribution of crypto assets in court.

5.3. CONCLUSION

To sum it up, this study has found that there is a clear need for Kenya to establish a legal framework that caters to cryptocurrency inheritance. This is further illustrated by the need to adequately define cryptocurrencies as property within the law and then ensure that they can be inherited upon the death of their owners. From this, it is evident that failure to adopt these recommendations will result in the continued vulnerability of cryptocurrency investors and their heirs as there is no law to protect them from the theft, fraud and so on. This will also result in the continued permanent loss of crypto assets upon the death of their owners with no way of their beneficiaries accessing them.

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