

The Level of Deepening and Classification of Cryptocurrency Transactions and Taxation in Kenya

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Abstract

This study will seek to determine the level of deepening and classification of cryptocurrency transactions and taxation in Kenya. Cryptocurrencies present a non-tax revenue base for the revenue authority; however, no existing tax laws are guiding the treatment of cryptocurrencies. The main objective of this study will be to find out the effect of classifications of cryptocurrency transactions on the tax laws and regulation in Kenya. The study will employ a qualitative exploratory research design and will use primary data collected from tax consultants within the Kenya Revenue Authority and the big audit firms in Kenya by conducting interviews. The data collected from the interviews has been analyzed by the content analysis method. The study has established that there is a knowledge gap amongst the professionals on the use, accounting, and taxation of cryptocurrency. It is also evident that cryptocurrencies can be classified as intangible assets, inventory, or digital currency rather than money or cash. The circumstances and nature of the transactions affect the taxation of the income generated from cryptocurrency transactions. The study has also established there is need for regulation of cryptocurrencies in the aspects of accounting guidelines, taxation framework and legality of the activities associated with cryptocurrency.

Keywords: cryptocurrency, taxation, tax laws, Kenya Revenue Authority

1. Background

The need to survive the competition and minimize the cost of operations has seen businesses across the world steadily evolve from their ancient ways to digital operations. This is attributable to technological development and innovation with numerous strides to this change including the growth of the internet and e-commerce. Although physical currency is still widely used in most countries around the globe, nations such as Sweden, have seen a fast reduction in the use of cash. Consumers routinely conduct transactions without physical currency, using credit cards or mobile phones to pay. Further, much of the money that central banks issue exists only in electronic form. So, in some sense, the idea of digital currencies is not very new to the public.

The emergence of this new technology has brought about the need for regulatory institutions to develop new laws and guidelines for the treatment of cryptocurrencies for taxation. Also, there is need to change the existing laws to adopt new developments.

1.1.1 Introduction to Cryptocurrency

The idea of cryptocurrencies was birthed in 2009 when the novel cryptocurrency, Bitcoin, was presented to the public. A cryptocurrency is a transferable digital asset that is secured by cryptography (White, 2015). Bitcoin was created by the pseudonym Satoshi Nakamoto who in 2008 published a paper in which the idea and technology behind Bitcoin were introduced (Ponchiano, 2021). The currency was created as a response to the financial crisis (Davis, 2011) and what was needed according to Nakamoto was "an electronic payment system based on cryptographic proof instead of trust" (Nakamoto, 2008). The result was a peer-to-peer electronic network allowing individuals to make anonymous transactions without the need for financial intermediaries (Ponchiano, 2021). After the publication of Nakamoto's report in 2008, Bitcoin was made available for trading in public 2009, and the process of creating new Bitcoins and verification of transactions began. However, it was not until 2010 when the digital currency was firstly traded, when a man purchased two pizzas for 10,000 Bitcoins. The popularity of Bitcoin grew overtime as alternative cryptocurrencies started emerging (Marr, 2017). Since the inception of Bitcoin, the availability of unregulated cryptocurrencies has risen exponentially to over 2000 available with varying size and market share (<https://www.coindesk.com/>, 2021). The price of cryptocurrencies is known to be very volatile, currently, the market value of one Bitcoin is \$34,972.49 with a market capitalization of \$651.42 billion (<https://www.coindesk.com/>, 2021). Only approximately 21 million bitcoins will ever be created. New coins are minted every 10 minutes by bitcoin miners who help to maintain the network by adding new transaction data to the blockchain. The invention of Bitcoin

inspired the creation of several new cryptocurrencies (Lee, 2018). These cryptocurrencies use similar cryptographic technologies but use different algorithmic designs. Examples of other cryptocurrencies are Ethereum, Litecoin and Dash, Peercoin, Dogecoin and Ripple. According to the Australian Accounting Standards Board (2018) cryptocurrencies can be used for online payments as a form of electronic cash, or a store of wealth and can be held as an investment or hoarded for speculation. Lately, cryptocurrencies are also used for Initial Coin Offerings (ICO), which are used by start-up companies as a source of a fast and easy way of funding as it avoids the regulated capital-raising process (Tapiwa, 2015).

One interesting aspect of the fast-growing cryptocurrency market is the fluidity of the terms used to describe the different products that fall within its ambit. While cryptocurrencies exist in various forms in different locations worldwide, they are similar because they use the same technology referred to as the blockchain. Some of the terms used by countries to describe cryptocurrency include digital currency that is used in Argentina and Australia. In Canada and China, they refer to cryptocurrency as a virtual commodity while the crypto token is the term used in Germany. Honduras and Mexico describe cryptocurrency as a virtual asset, while Italy categorizes it as cyber currency.

Figure 1.1 Market Capitalization of Cryptocurrencies

1.1.2 Cryptocurrency and blockchain technology

The technology behind cryptocurrency is called Blockchain. The users who trade in cryptocurrency generally have a digital wallet used to store one or more private digital keys. Cryptocurrencies can be acquired through the process of mining or by purchase from a buyer to seller in the network. Mining is a process that allows computer users to solve complex algorithms that are used as a test to confirm each transaction in the blockchain. Once a user solves the problem correctly, they are rewarded cryptocurrency. Using key cryptography technology, two pieces of information authenticate the trade: a public key, which identifies the sender or recipient (and can be distributed to others); and a private key, which is used with the public key to create a theoretically unforgeable signature (and is not typically distributed to others). The public and private keys are different but mathematically linked through a signature algorithm used to authenticate trades. Considering these, "A cryptocurrency is a digital medium of exchange that relies on a decentralized network, that facilitates a peer-to-peer exchange of transactions secured by public-key cryptography" (Nakamoto, 2008).

Bitcoin is one of the prime examples of cryptocurrency, but newer coins are entering the market through Initial Coin offerings every day. These coin offerings are kick-starter projects for newly developed coins whereby coins might

utilize a different scheme of circulation, algorithm, or proof of work. From a societal perspective and the ideas of Satoshi Nakamoto within his whitepaper 'Bitcoin: A Peer-to-Peer Electronic Cash System', the main incentive has been to implement a system that would allow for the possibility to decentralize authority, enact transactions on a peer-to-peer basis whereby everything is recorded in public databases and is immune to risks such as counterfeiting and fraud (Satoshi Nakamoto, 2008).

However, since the ideology behind cryptocurrencies is to evade any third-party intrusion, the question of regulation becomes increasingly blurry as that would go against the very foundation of many cryptocurrencies and their virtual communities that are avid on privacy and decentralization.

Figure 2: Blockchain Technology

1.1.3 Global Perspective

Around the world, governments have taken different stances towards cryptocurrencies including entirely or partially accommodating, banning, classifying and or taking no action at all against the cryptocurrencies. One of the most common stands taken by various governments in countries across the world is the issuance of notices about the risks of participating in the cryptocurrency markets. Such warnings are commonly employed by monetary regulatory bodies such as central banks and are largely designed to educate people about the difference between fiat currencies and cryptocurrencies. For simplicity, fiat currencies are issued and guaranteed by the government whereas cryptocurrencies are privately owned and are not backed by the state. Most government notices highlight the increased risk that emanates from the high volatility linked to cryptocurrencies. The government is also keen to point out the fact that the majority of the agencies that facilitate these transactions are unregulated.

Besides, in the event of loss from activities associated with the cryptocurrency business, there is no legal recourse available to the aggrieved parties. Several opportunities for illegal activities arise from cryptocurrencies operations (OECD, 2018). These include money laundering and terrorism among many vices (OECD, 2018). Some of the states go beyond the issuance of warnings to establish laws on money laundering, counterterrorism, and organized crimes (Elwell, 2013). With the laws in place, financial institutions are required to conduct all the due diligence on their customers and partners before engaging in such activities. Countries that have enacted these laws are, for example, Australia and Canada.

Some jurisdictions have gone even further and imposed restrictions on investments in cryptocurrencies e.g Algeria, Morocco, Nepal, Pakistan, and Vietnam have put a total ban on all activities dealing with cryptocurrencies. Qatar and Bahrain differ slightly from this approach by allowing their citizens to engage in cryptocurrency activities outside their

border and not within. China and Thailand have not banned their citizens from investing in cryptocurrencies, however, they have imposed indirect restrictions by barring financial institutions within their borders from facilitating transactions involving cryptocurrencies. A few nations regulate initial coin offerings (ICOs), which use cryptocurrencies as a method to raise capital.

Not all countries see the innovation and advance of blockchain technology and cryptocurrencies as a threat, however for varying reasons. Some of the countries, while not accepting cryptocurrencies as legal tender, project and tap into the potential in the technology behind it. They are investing in establishing cryptocurrency-friendly laws to attract engagement and investment in technology firms that thrive in this sector (OECD, 2015).

Some jurisdictions are seeking to go even further and develop their system of cryptocurrencies such as Venezuela and the Eastern Caribbean Central Bank (ECCB) member states. Besides, the UK and South Africa have issued warnings to the public about the risk of investments in virtual currencies having recognized that the market is quite small and does not warrant a total ban nor development of regulation (OECD, 2015).

One of the many challenges that arise from letting investments in and the use of cryptocurrencies is the matter of taxation. In this regard, the problem appears to be how to categorize cryptocurrencies and the specific events involving them for purposes of taxation. This matters primarily because whether gains made from mining or selling cryptocurrencies are categorized as income or capital gains invariably determine the applicable tax bracket.

Around the globe, countries have categorized cryptocurrencies differently for tax purposes, as illustrated by the following table:

Figure 3 Classification of Cryptocurrency around the world

1.1.4 Kenya Perspective

Kenya prides itself on the origin of mobile money transfer invention with the success of M-PESA being a case study for the rest of the world. M-PESA thrived on the underdevelopment of traditional banking infrastructure to grow. The inaugural digital money service in Kenya is Bitpesa which is a digital payment service that allows a party overseas to transfer money to residents in Kenya (Njuguna, 2014). Similarly, cryptocurrency stands a chance to thrive and grow in Kenya with most Kenyans turning to the online market to buy and sell goods and services as witnessed with the growth of e-commerce websites like OLX (Greeley, 2014).

According to the Citibank Survey (2018) Kenya ranked as the 5th highest bitcoin holder per capita in the world at 2.3% of the GDP or USD 1.6 billion. Nigeria was ranked third while South Africa took sixth place. In Kenya, these cryptocurrencies are not recognized by the Central Bank of

Kenya (CBK) as legal tender. This, however, does not necessarily exclude them from taxation.

Currently, Kenyan tax law has not been adopted in particular to deal with the taxation of cryptocurrencies. That notwithstanding, income earned from trading with these cryptocurrencies falls within the scope of taxable income under the Income Tax Act. The CBK has continuously warned the citizens against dealing with cryptocurrencies citing the absence of a regulatory framework (Central Bank of Kenya, 2015). The absence of a regulatory guideline or support from the central bank should not be misinterpreted to mean that dealing with cryptocurrencies is illegal. Granted, income generated from unregulated activities is still subject to tax in Kenya. This opens a window for the Kenya revenue authority to review the tax laws to put into consideration taxation of digital currencies and other emerging technologies.

1.2 Problem Statement

According to the Citibank Survey (2018)-Kenya listed as the 5th highest bitcoin holder per capita in the world at 2.3% of the GDP or USD 1.6 billion. Nigeria was third while South Africa was sixth in line. In Kenya, cryptocurrencies activities are not recognised as legal nor backed by the state. This, however, does not necessarily exclude them from taxation.

Currently, Kenyan tax law is yet to be adopted to accommodate the innovations from blockchain technology. That aside, earnings derived from transactions with cryptocurrencies fall within the scope of taxable income under the Income Tax Act. (Kenya Law, 2019) The government has firmly warned the citizens against dealing with cryptocurrencies stating the lack of regulation.

The Kenya budget for the fiscal year 2019/2020 was estimated, Kes. 3.08 trillion. The government source of funds is external financing and the domestic market. The budgetary estimates have been on the increase for the past 5 years, and this has seen the public debt for the country on the season-high with the 2019/20 fiscal year recording the highest. This growth in public debt had put pressure on the Kenya revenue authority to meet its set targets. This means that the revenue authority must ensure more taxes are collected from the taxpayers and efficiently. KRA must increase its tax base by exploiting the untaxed revenues and ensuring compliance from the taxpayers. In 2008, tax evasion led to a decrease in the tax base that had been predicted to be Kes. 79 billion (Kenya Parliamentary Budget, Feb, 2020).

Cryptocurrency in Kenya presents a non-taxed revenue base for the government. The virtual nature of cryptocurrencies transactions has created a haven of untapped revenue that might be exploited for tax evasion and avoidance (KRA, 2021). Crypto-currency transactions present various avenues for taxation depending on the approach in which a country opts to categorise the events for taxation. Kenya has no taxation laws addressing cryptocurrencies and this encouraged tax avoidance and loss of income for the

government. Therefore, this study will fill the knowledge gap by investigating the effects of the cryptocurrency transactions on the existing taxation framework in Kenya as well as come up with recommendations to increase the tax base and compliance with the taxation laws.

1.3 The objectives of the Study

1.3.1 General Objective

The general goal of this study is to determine the level of deepening and classification of cryptocurrency transactions and taxation in Kenya.

1.3.2 Specific Objectives of the Study

To find out the effects of cryptocurrency classification as an asset on taxation in Kenya

To find out the effects of cryptocurrency classification as revenue on the taxation in Kenya

To determine the effects of cryptocurrency classification as currency in Kenya.

1.4 Research Questions

What are the effects of cryptocurrency classification as an asset on taxation in Kenya?

What are the effects of cryptocurrency classification as revenue on taxation in Kenya?

What are the effects of cryptocurrency classification as a currency on taxation in Kenya?

1.5 Significant of the study

1.5.1 KRA Management

The Kenya Revenue authority may also use the findings to identify loopholes and improve on their existing framework as well as identify avenues to expand on the tax base.

1.5.2 Policy Makers and Government

Information obtained from this study will be used by the government and the policymakers as a foundation for the formulation of policies that involve taxation of the digital currencies as well as coming up with strategies that help enhance an environment for compliance of tax.

1.5.3 Accountants and investors

Investors of digital currency may also use the information to ensure compliance with the tax laws and exploit legal ways for tax avoidance. Accountants will also use the information as a blueprint in developing financial standards, use the information to value and recognise cryptocurrencies appropriately in the preparation of financial and tax reports

1.5.4 Future Researchers

Researchers and scholars may also use the findings as a basis of knowledge regarding the taxation of digital currencies. The information will also be used for future reference in research

1.6 Scope of the study

The study is delimited to tax consultants and IFRS-experts within the Kenya revenue authority and the big audit firms. The choice of this target population is because they are

knowledgeable on taxation matters, more so cryptocurrency which is an emerging issue around the globe.

There is a wide range of other taxation issues besides those brought up in this research, the focus is on cryptocurrencies classification assets, source of revenue, and currency. Other issues found in the taxation of cryptocurrency as initial coin offerings (ICO), and mining. Taxation matters differ from one jurisdiction to another; therefore, this study will focus on the tax legislation within Kenya.

1.7 Limitations of the Study

One of the limitations to the study is inadequate knowledge about the topic to the respondents and the public. This is because the cryptocurrencies are a relatively new subject with no established guidelines and documentations for references.

Another challenge is communication. Due to the covid19 global pandemic the ministry of health introduced social distancing and curfews to avoid the spread of the disease. During the study we were able to use alternative channels of communication such as online meeting and phone calls to conduct the interview rather than face to face meeting.

2. Literature Review

This section of the study shall review the findings by other researchers on blockchain technology and cryptocurrency classification and existing taxation framework across the world. The chapter provides a detailed literature review in trying to provide an understanding of the nature of cryptocurrencies, classifications, transactions and their impact on existing taxation laws. It looks at theoretical review, conceptual framework, empirical review, critiques of the existing literature relevant to the study, summary, and research gaps.

2.2 Theoretical Review

Notable studies have been conducted by researchers and scholars on the topic. The studies serve to provide an understanding of the topic and not necessarily provide information for measuring the variables. This research is exploratory and therefore rely on the perspective and opinions of the researcher and respondents. Relevant models have been discussed in the following subsections.

2.2.1 The Mises Regression Theorem

One of the most mind-boggling properties of cryptocurrencies is how they are valued. For example, bitcoin has been cited as violating Ludwig von Mises's regression theorem (Tapiwa, 2015). The regression theorem demonstrates that the money is commodity money like gold or government-backed fiat currency and must ultimately derive its purchasing power from a historical tie to a commodity that was valued in a state of barter. (Rothbard, 2005) goes into detail with his article titled, 'What Gave Bitcoin Its Value' published by the Foundation for Economic Education and mentioned that the theory of the value of money as such can trace back the objective exchange value of money only to that

point where it ceases to be the value of money and becomes merely the value of a commodity.

According to Graf (2013), 'the regression theorem is a temporal-sequential explanation of the initial emergence of indirect exchange value". The regression theorem was proposed and developed by Mises (1953) as a statement that ties together an idea on the origin, formation, and development of modern-day money.

In his own words, Mises noted that "Objective exchange value... today is derived from yesterdays under the influence of subjective valuations of individuals frequenting the market" (Mises, 1953). Bitcoin has been criticised for being an undependable store of value. As many scholars denote that bitcoin can be at least a secondary medium of exchange it could be inferred that the mises regression theorem is either wrong or misunderstood (Zhao, 2018).

Zhou (2018) noted that the regression theorem requires innovation and improvement to accommodate the nature and unpredictability of the cryptocurrency. Zhou mentioned that, for the theory to work, a medium of exchange must have the properties essential for exchange like price and general acceptance in the market. If the chosen medium of exchange has these attributes, then it points toward a demand for it. this demand is known as non-monetary demand. A medium of exchange may at long run stop having non-monetary demand but it remains sustainable. Even though Mises sees non-monetary demand as being necessary for the emergence of price and marketability, he still states that money only provides utility for obtaining other goods and services in exchange for it (Mises, 1953).

This essentially implies that although demand that is not directly associated with money is crucial for its development, it is not mandatory to sustain the money. Rothbard (2005) further argues that direct use of money as a commodity is not crucial if the if the money has been development. He further stated that even if gold were to deplete in its value as an aesthetically pleasing product, it is having other uses as metal conductor and would not imply that gold loses its value of money entirely. Rothbard concludes that monies must emerge as a commodity which is a difficult attribute to claim for cryptocurrency.

2.2.2 Garch model

The cryptocurrency market has experienced a high level of interest from users for investment purposes since 2016. Bitcoin, which is the leading digital currency in the world has seen increase in value by 1500% since the start of 2017. However, reality in the market is largely more complex than the perception of the public. While there have been several studies predicting the future of Bitcoin and its volatility, according to (Polasik, 2015), there have been few that seek to understand the broader market and its evolution. The currency is uniquely volatile despite its recent peak performance,

increasing in value by thousands of dollars on one day only to decrease by more the following day.

(Polasik, 2015) estimates the volatility of Bitcoin through a comparison of GARCH models noted that the business is highly speculative. Besides, bitcoin prices are affected by negative changes more as compared to positive actions.

Majority of people never accommodating the idea that cryptocurrencies will change how business is conducted. They cannot comprehend how the whole blockchain technology functions. Furthermore, developments in technology are introducing sophisticated tools that companies can use to improve their interaction with their customers. The cryptocurrency was introduced to address the issue of privacy concern.

2.2.3 Economic Deterrence Theory

Economic deterrence theory was developed by Allingham and Sandom (1972) and it incorporates the rational taxpayer concept as they try to evade payment of taxes for a long time since the payoff is greater and better than the tax cost to be paid after they are caught. According to this model the declared income depends upon income or revenue, audit rate and tax rate. According to Alm, Jackson and McKee (1992), what the government takes from the taxpayer, the individual perception of benefits of taxes affects or determines tax compliance decision or evasion.

The economic deterrence model has undergone a few alterations and extensions, and still enjoys prominence in most studies on taxpayer compliance. On the other hand, criticism has been leveled on it for not being rational in explaining taxpayer compliance, since it predicts a general substantial noncompliance beyond what is practical in real sense (Yeung, 2004). Snyder (2012) agree that although tax authorities periodically carry out audits and penalties, tax evasion has remained, and continuously posed significant threats to countries' economies, through loss of revenue. Besides, it has also been proven through research that there are people who never evade taxes, (Thakur, 2013).

2.2.4 Optimal Taxation Theory

Mayshar (1990) notes that this theory is used to show how best a tax can be used to reduce distortion and inefficiency when one tries to increase the set taxes through illegal methods. A neutral tax is a theoretical tax which avoids distortion and inefficiency completely (Ramsey, 1997). Other things being equal, if a taxpayer must choose between two mutually exclusive economic projects (investments) that face the same pre-tax risk and returns, the one with the lower tax or with a tax break would be chosen by the rational actor. With that insight, economists argue that generally taxes distort behavior (Slemrod and Yitzhaki, 1996).

The theory of optimal taxation is normative, essentially assuming that policy is made by a benevolent dictator who respects individual preferences as well as some 'social' preference for equality. One can choose to dismiss this body

of theory by pointing out that actual policy makers typically represent specific interest groups and that actual policies tend to reflect some compromise between conflicting interests rather than the maximization of a Bergson-Samuelson social welfare function (Auerbach, 1996).

2.3 Conceptual Framework

A conceptual framework is a written or visual presentation that "explains either graphically, or in a narrative form, the main things to be studied, the key factors. Concepts or variables and the presumed relationship among them (Saunders, 2012). The relationship between the variables is illustrated in Figure 2.1

Figure 4 : Conceptual framework

2.3.1 Classification as an asset

The taxation of cryptocurrencies depends on their categorization. Arguments have been put across for the classification of cryptocurrency as a financial instrument, inventory, or intangible asset.

The definition of a financial instrument is "any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity" (IFRS , 2021). A financial asset is referred to as cash or a contractual right to receive cash or another financial asset from another entity (IFRS , 2021) Since cryptocurrencies are not cash, nor gives any contractual right to receive cash or another financial asset, cryptocurrencies cannot be viewed as financial assets (IFRS , 2021).

Cryptocurrencies are created by the process of mining, and as they do not come into existence because of a contractual relationship they cannot be classified as a financial instrument or financial asset (IFRS , 2021) However, there are proponents which argue that cryptocurrencies meet the definition of financial assets since it is virtual cash, and thus serve as a medium of exchange enabling investors to purchase goods and services.

Furthermore, Prochaska (2018) states that even though cryptocurrencies do not meet the definition of a financial asset, the surrounding economic factors of a transaction is comparable to trading with financial instruments. However, some cases may lead to cryptocurrencies being classified as a financial instrument, such as forward contracts, options, or other cash-settled contracts based on movements in cryptocurrencies (Procházka, 2018) point out that cryptocurrencies may also be classified as a hedged item under hedge accounting if they are reliably measurable. Furthermore, cryptocurrencies may also be within the scope of IFRS 9 when used for short-selling and other derivative-like contracts.

Similarly, the International Financial Reporting Interpretations Committee (IFRS , 2021) notes that virtual currencies meet the definition of an intangible asset under IAS 38, which defines an intangible asset as "an identifiable non-

monetary asset without physical substance". Indeed, according to IFRIC, a virtual currency fits the definition of an intangible asset as "(a) it is capable of being separated from the holder and sold or transferred individually; and (b) it does not give the holder a right to receive a fixed or determinable number of units of currency." (IFRS, 2021) Moreover, IFRIC notes that virtual currencies should not be classified as financial assets or cash. Virtual currencies cannot be considered as financial assets as these assets are neither equity nor do they give rise to contractual rights for its holder to receive cash or to exchange financial assets or financial liabilities with another entity.

Cryptocurrency can be accounted for as inventory by IFRS IAS 2 when an entity holds these assets for sale in the 'ordinary course of businesses. This would apply to brokers and traders of virtual currencies.

2.3.2 Classification as Revenue

Various taxable events may arise because of cryptocurrency transaction. The first such event is when the virtual currencies are created through the process of mining. Disposal of cryptocurrency is a taxable event.

A change in the underlying protocol of token results in a chain split, or fork, requiring users to update the protocol software they use. If the fork results in a new token being operated under the amended protocol, with the existing token continuing to operate on the previous protocol, this is referred to as a hard fork. Following a hard fork, holders of the existing token will receive additional tokens under the new protocol, which can give rise to a taxable event

2.3.3 Classification as currency

To determine an appropriate regulation and tax treatment for virtual currencies, it is important to understand not only how to characterise them, but also what function they perform. One of the arguments for virtual currencies is to offer a decentralised solution for quick cross-border transactions, and they can indeed be used as a means of payment. However, it is not obvious that their features strictly correspond to the legal and economic definition of a fiat currency and the concept of money. This section analyses both issues. In considering the primary elements of a currency, the following factors need to be considered. First, a currency is a representation of value. Secondly, a currency is backed by a public authority such as a central bank, and lastly, a currency is recognised as legal tender in at least one jurisdiction.

2.4 Empirical review

This section explores studies that have been conducted by other researchers about cryptocurrencies and their markets. The studies explained herein aim to assist in creating a better understanding of cryptocurrencies and tax regulations.

Piia Hyytia (2019) conducted a qualitative study exploring the issues and challenges when accounting for Cryptocurrencies. The purpose of the study was to understand and discuss the practical accounting issues and challenges

related to cryptocurrencies for preparers of financial statements. The research was based on four broad themes which sought to assist the purpose by including several perspectives to the issues and challenges faced. The themes were divided into are assets, revenues, disclosures, and risk factors associated with cryptocurrencies.

The study found that cryptocurrency could be classified assets in form of financial assets, intangible assets, inventory, and cash for accounting. what needs to be considered when deciding upon the asset classification of cryptocurrencies is the circumstances surrounding the actual asset classification. When accounting for revenue from cryptocurrency, it was noted that it is important to determine when the gains and losses occur because of the difference in the value of the cryptocurrency, and when it is an exchange rate difference.

Yussof and Al-Harthy (2020) conducted a study on 'Cryptocurrency as an alternative currency in Malaysia.' They noted that one of the most criticised innovations is cryptocurrency which uses blockchain technology to enable peer to peer transaction amongst its users. Cryptocurrency payments bypass the need for a third party like financial intermediary. The absence of an intermediary is cost saving. They also found out that that this innovation is exerting is pressure on the central bank in Malaysia to manage the pending threat of redundancy as it overshadows fiat currency in a world of infinite technological innovations.

The study focused much on bitcoin. They noted that this digital currency is not produced by "minting money in an unlimited supply but through a virtual mining process designed to control the supply of money and make it more valuable." The team went on to say that the increasing pace in financial innovation is pushing regulators to make a change in the way they define money and its potential. They mentioned that traditionally money is used to serve as a medium of exchange, legal tender for repayment of the debt, standard of value, unit of accounting measure and a means to store chasing power. Bitcoin may not fulfil all the functions of money but its scarcity value, anonymity, transparency, and autonomy from the government, make it attractive to users who are speculators, traders, merchants, consumers, and people tired of fiat money.

Yussof and Al-Harthy mentioned that despite the outstanding properties of Bitcoin, it is not spared from potential abuses such as web crimes, tax evasion, fraud, online black markets, money laundering and terrorism financing. In their study, they made a conclusion that the analysis of benefits versus risks from the bitcoins will guide the regulators on the adoption of cryptocurrency and direct them in preparing an appropriate legal framework.

Locally, Mwangi E.N (2014) conducted a study on the adaption of Bitcoin in Kenya. The research was a case study on bitpesa. He concluded that the use of Bitcoin reduces the cost of international funds transfers as compared to traditional

funds transfer services like Western Union and PayPal. Bitcoin offers considerable benefits to people sending micro remittances across borders and is an efficient system considering that the transaction takes a maximum of 10 minutes to complete. Secondly, the challenges faced in the adoption of Bitcoin as new technology are common to new technologies. Considerable awareness and training need to be done to the potential clients of the system to ease use and reduce the resistance to change that might be caused by fear of change. Thirdly, there is still room for considerable input by regulation agencies and governments to evaluate Bitcoin and develop inclusive regulation that governs proper usage of the new currency, protecting users and online consumers while at the same time allowing the innovation to realize its full potential.

2.5 Critique of the study

The above literature has established the need for regulation of digital currency. There is a need for the legal sector of jurisdictions to keep up and adapt to emerging technology and innovation. The governments can make use of the opportunity to expand their tax base by stretching and establishing regulation on virtual currency. The above literature has been done extensively concerning adaption and risk associated with cryptocurrency, however, not much has been done on the taxation of cryptocurrencies based on the classification, thus this study seeks to find out the effects of cryptocurrency transaction on the existing tax laws and regulations in Kenya.

2.6 Research gaps

Despite having numerous studies related to taxation of cryptocurrency for jurisdiction across the world, there is however scarcity of study on taxation of cryptocurrency in developing countries, especially Kenya. Most of the developing countries, including Kenya have taken a wait and see the position on the taxation of digital currencies. This study intends to dissect the topic and provide information on the classifications of cryptocurrencies as assets, for revenue and currency for accounting and tax treatment.

2.7 Summary

This chapter focused on the theories related to the study. It looked valuation of cryptocurrencies through mises regression and the Garch model of money. It also looked at the conceptual framework and reviewed literature related to the dependent variable (Tax laws and regulations) and the independent variable namely classifications of cryptocurrency as an asset, revenue, and currency for taxation. The chapter further reviewed the empirical literature on the taxation of cryptocurrency. It looked at the global perspective through a study conducted in Malaysia, the African perspective via a study done in South Africa, and locally. The study established that there is a need for regulation of cryptocurrencies.

3. Research Methodology

The chapter includes the research design, population of the study and the sampling design, where the researcher discusses

the sample size and sampling technique. The chapter then moves to describe data collection, research procedures and data analysis methods and procedures.

3.2 Research Design

A research method refers to the techniques that the researcher uses to gather information. This research uses the qualitative method. Qualitative research is a strategy "concerned with a subjective assessment of attitudes, opinions and behavior" (Kothari, 2004). The goal of this research is to find practical implications for the taxation of cryptocurrencies, from the perspective of tax professionals. Because of the limited number of consultants with knowledge about cryptocurrencies, a qualitative method is most suitable to fulfil the goal of this study.

Qualitative research with an inductive approach is used to advance to a richer theoretical perspective than already existing (Saunders, 2012). With a lack of research and regulatory guidance on the taxation of cryptocurrencies, this method serves to build upon the existing literature and develop a piece of practical knowledge to the problem. It is suggested that qualitative research have four major characteristics (Lee, 2018) and these are highly related to the research to be conducted. The characteristics suggest that qualitative research occurs in natural settings, it derives from the participant's perspective, it is flexible and lastly qualitative observation methods are not standard. This study is conducted in the natural setting of actors related to the taxation profession.

Furthermore, the perspective of the respondents is important and may differ because of the lack of regulation. Moreover, the research is flexible to capture as many perspectives on the problem as possible. As this research seeks to increase the understanding of phenomena, a qualitative research method is appropriate (Ghauri, 2010).

A research design refers to the blueprint that you prepare using the research method chosen, and it delineates the steps that you need to take (Mugenda & Mugenda, 2003). This study adopts an exploratory research design. Exploratory research is suitable when there are few previous studies, and the purpose is to search for patterns and ideas in the chosen area (Collis, 2014). Exploratory studies are also useful when the precise nature of the problem is unsure and when an understanding of the topic needs to be enhanced (Saunders, 2012).

Furthermore, exploratory studies tend to rely on the contribution of the participants, and interviews are likely to be unstructured. A key consideration of conducting such a study is flexibility, because of the changing nature of the research. Additionally, a wide collection of data is often used, and the research is very open. Exploratory research seldom provides specific answers to problems and issues, but rather serve as a springboard for future research (Collis, 2014).

3.3 Sampling Frame

A sampling frame comprises a list of people from which a researcher uses to obtain information about the study because one can rarely have access to the entire population of interest. In this study, the ICPAC and ACCA was the suppling frame.

3.4 Target Population

Population refers to all people or items with similar characteristics that one wishes to Study (Zikmund, 2013). The target population is the totality of cases that conform to some designated specification, which could be people, events, or things of interest to the researcher (Kothari, 2004). This study targeted Tax consultants from the big audit firms and Kenya Revenue Authority in Kenya.

Table 3.1: Target population

3.5 Sample and Sampling technique

There are two types of sampling techniques that a researcher can use: probability or non-probability sampling (Saunders, 2012). Probability sampling is commonly related to survey research strategies where a researcher aims at drawing conclusions from the sample whether the population answers the research question or not. This sampling method assumes that the sample will be chosen at random from a sampling frame (Saunders, 2012). A non-probability sampling includes elements of subjective judgements that can answer the research question when an in-depth study needs to be conducted. Nonprobability sampling is therefore a more suitable sampling technique for this research.

In this research both purposive and volunteer sampling techniques associated with non-probability sampling will be used. In purposive sampling, judgements need to be made when selecting participants who can answer the research question (Saunders, 2012). This was the case when contacting prospective participants. At the initial stages of tax, specialists will be contacted first as it is deemed, they would know about taxation for cryptocurrencies. Also, volunteer sampling was used and more specifically snowball sampling (Saunders, 2012). This technique is commonly used when it is challenging to identify members of the desired population. Snowball sampling includes four identifiable steps: establish contact with one or two cases in the population, ask these cases to identify further cases, ask these new cases to identify further cases and stop when there are no new cases, or when the sample is large enough. Thus, the sampling starts with one or a few cases or people and then spreads out based on links to the initial cases (Neuman, 2011). Since the population was difficult to define in this study, snowball sampling provides a possibility to find new interviewees (Saunders, 2012). If the initial contact does not know anything about the taxation for cryptocurrencies I will inquire if they know someone who does, and through that new possible informants will be found.

3.6 Data Collection Instruments

This research utilized primary data since the purpose was to get a deeper understanding of the classification of cryptocurrency transactions for taxation. The primary data for

the research was collected through semi-structured interviews. The respondents were chosen based on their knowledge and experience of cryptocurrencies and accounting.

3.7 Data Collection Methods

Data collection instruments are tools or methods use to collect data from participants in a study (Mugenda & Mugenda, 2003) This study will rely on primary data. Primary data will be collected by the use of interviews which will be administered to the sampled respondents.

3.8 Data Collection Procedure

The researcher will obtain an introductory letter from the school (KESRA) to enable them to collect data. An interview guide will be used as an outline for the interviews.

To strengthen the dependability of the research the informants will be given a participation information sheet and information about the broad themes the interview would cover, at least 5 days before the interview.

3.9 Pilot Testing

A pilot study is a preliminary mock study that precedes the actual study. This mock study is important because it enables the researcher to gauge if the instruments of data collection will work properly as expected (Mugenda & Mugenda, 2003), citing that a relatively small sample of 10% of respondents is enough for a pilot study. Consequently, 4 interviewees will be selected randomly for the pilot study. The pilot study will be crucial since it will help the researcher to rephrase the questions that will not be understood and pretest the interview guide to rate if it will collect the desired results.

3.10 Reliability of the research Instruments

Reliability of research instruments is the degree to which a given data collection instruments yields consistent results. The study will use the test and retest method in enhancing the reliability of the interview guide. The interview guide will be pre-tested to the selected sample of the respondents.

3.11 Validity of the research Instruments

The validity of research instruments is the measure of the quality of data a given instrument provides concerning what it is expected to collect. This study will adopt content validity. Content validity defined implies whether a given set of data can result in meaningful and useful inferences (Creswell, 2010)

To improve the content validity of the data collection instrument the study will seek the guidance of the supervisor. According to Creswell (2010), validity is the strength of qualitative research; it occurs when the knowledge sought is arrived at through descriptions that make possible an understanding of the meaning and enhance the experience.

3.12 Data analysis presentation

Since this research is following an inductive approach, it is intrinsically followed when analysing the data. Consequently, the data will be collected then analysed to identify any underlying meanings to the data which could help to

understand the themes discovered early in the research. In the inductive analysis approach, the intent is to identify relationships between the data and develop questions for further research (Saunders, 2012).

At the initial stage of the analysis, information recorded from the interviews was transcribed. The transcribing the process involves audio-recording the interviews and reproducing it as a written word-processed account by using the actual words (Saunders, 2012).

To be able to select relevant information from irrelevant information data reduction was conducted after the transcription of all the interviews. Data reduction involves the process of selecting, focusing, simplifying, abstracting, and transforming the data appearing in transcriptions (Ghauri, 2010). Continuous data reduction involves discarding useless data and compare data where relationships of interest exist (Collis, 2014). For example, when the informants' discussions are beyond the scope of the research such data was discarded.

According to Bryman and Bell (Bryman, 2011), one of the most common ways of approaching qualitative data analysis is through conducting a thematic analysis. Thematic analysis is a method used to systematically identify, organize, and offer insight into patterns of themes across a data set (Braun, 2012). The main reason why thematic analysis is chosen is the flexibility it provides (Braun, 2012).

The thematic analysis allows the researchers to identify the relations in a particular topic and connect themes to the research question (Braun, 2012). Coding was used when trying to recognize relationships and to categorize the data under the existing themes identified. Content analysis is done on the empirical results, and analysis was done and summarised, and recommendations derived.

4. Research Findings and Discussion

This chapter presents the empirical findings which were based on interviews with the tax and financial consultants. The findings are presented under the four major themes of the research. Initially, the informants are presented, thereafter a general discussion related to the accounting and taxation of cryptocurrencies is given. Following are the findings related to assets, revenues, and currencies. The chapter is concluded with the informants' views on the legality and future of cryptocurrencies in Kenya.

4.2 Study response rate

In total 30 people were contacted through email. Out of the 30 people contacted 20 people answered, however, a very small proportion answered that they had any knowledge about the subject. Therefore, the number of interviews was limited to 8 informants as it was believed these 8 consultants had enough knowledge about the topic. Several of the professionals contacted answered that they did not have enough knowledge, but that it is a very interesting subject needing further research.

4.3 Information about informants

In table 4 below the informants are presented. A brief explanation of the informants work experience is given. The average interview time with the participants was 40 minutes which excluded information about the interview.

4.4 General concerns about cryptocurrencies

Before asking more specific classification and taxation issues about cryptocurrency, the informants were requested to touch on their interpretation about the issues surrounding cryptocurrencies. These issues include general, regulatory, and accounting perspectives. A variety of challenges emerged, some of which were discussed by more than one participant and others were only introduced by one participant.

One of the issues that emerged in several of the sessions was that cryptocurrencies are quite new and unfamiliar. This view was discussed by Consultant 1, Consultant 3, consultant 5 and 6. The informants believed that this a big problem because it explains why there are no regulations and guidelines developed in the country for Cryptocurrency.

Another issue that emerged from the discussion was the legality of cryptocurrency. Consultant 8 suggested that the legality of the cryptocurrencies in Kenya is questionable, mainly because the central bank had issued a caution to the citizens and investors that the activities surrounding the cryptocurrencies could constitute illegal actions. Another informant, consultant 2, agreed with the sentiments adding that the untraced ability of the activities could encourage criminal actions such as money laundering and support for terrorist activities.

4.5 Research Findings and Analysis

4.5.1 Asset classification

The opinions from the respondents on what type of asset cryptocurrencies should be classified were different. The suggested asset classifications were financial assets, intangible assets, inventory, and cash. Some of the consultants were very sure about what type of asset it can be classified while others were uncertain and thought several standards could be applied.

One of the consultants (5), felt that the issue of classifying cryptocurrency as an asset was very confusing because of the method of valuation and measurement, and therefore he did not agree to this classification.

A view agreeable by all the respondents is that circumstances affect the asset classification and different classifications may be suitable for different firms. Below are the specific findings from the respondents

Intangible asset

Consultant 8 suggested that the purpose of holding cryptocurrencies is very crucial in asset classification. He affirmed that the purpose for holding the cryptocurrency is crucial in determining the method of taxation. This idea was also emphasized by consultant 7 who stressed the importance of an understanding of the cryptocurrency to be able to classify in one of the existing asset classes.

Consultant 3 was uncertain of the classification and thought the cryptocurrencies could be classified as financial assets or intangible assets. However, he highlighted that so long as cryptocurrencies are not backed by a government or broadly accepted, they do not meet the definition of a financial asset under IFRS 9. If it would be either broadly accepted or government-backed, then it could be classified as an equivalent of a currency.

Financial instrument

Consultant 4 believed cryptocurrencies can be categorized as financial instruments. He also thought that the investors could classify the cryptocurrency into any other asset class but was very sure it could not be classified as cash. The reason was because it did not meet the definition of money in store of value.

Consultant 6 mentioned that there are situations where cryptocurrencies could be categorized as a financial asset, for example, if a company has excess cash and decides to invest in cryptocurrencies or if it is an investment product sold from a financial institution

Inventory

Consultant 1 strongly believed cryptocurrencies should be classified as inventory. He said the reason for this is if a company is involved in mining and issuing of the currency then that is an item of inventory.

Cash

Consultant 2 on the other hand believed cryptocurrencies should be considered as foreign currency since there are already established systems handling foreign currencies and then cryptocurrencies should fall under that category.

4.5.2 Revenue classification

All the responds raised the issue that there is no regulation on the right method to recognize revenue from cryptocurrencies. Importantly, the discussions leaned on the recognition of cryptocurrency as a method of payment for revenue and its translation to fiat currency as well as treatment for foreign exchange income.

Foreign Exchange

The Consultant 8 suggested that if one accepts payment in the form of Cryptocurrencies for services or goods sold, they will have to recognize that as revenue. He noted that the issue could arise in translating the cryptocurrency to an existing fiat currency. However, he highlighted that an issue could arise where the exchange rate at the date when the payment is received and when converted to fiat currency. Also, in nature cryptocurrency prices are very volatile.

Consultant 2 suggested that it is important to determine whether the cryptocurrency will be used as a measure of the value or as an alternative payment method therefore the value measured in fiat currency. He also questioned whether a debt that is valued and paid in cryptocurrency would attract crypto interest and how this would be handled for taxation.

Consultant 6 and 4 noted that in the case where cryptocurrency is used for payment, and the transaction attracts value-added tax (VAT) it would be complicated to handle since VAT must be recognized and stated in Fiat currency.

Consultants 1, 3, and 5 held the opinion that revenue should be recognized in fiat currency for accounting and taxation purposes, although cryptocurrency could be recognized as a payment method regarding the stated fiat currency.

Mining, Initial coin offering (ICOs) and Hard fork

Consultant 7 believed cryptocurrency mining is a professional service and the income derived from this activity should be subjected to tax. However, he noted that he was not very conversant with the block chain technology and therefore he did not know how miners would be tracked to report this income and that the activity of mining is rewarded in cryptocurrencies and not in fiat money.

It was clear that there is acknowledge gap about the ICO and hard-fork events from cryptocurrency as consultant 4, 5, 6 noted that they did not understand the terms. Consultants 3 expressed the need to understand these events.

4.5.3 Currency classification

Fiat currency

The classification of a currency as money is derived from its characteristics in terms of store of value, recognition as legal tender and use as a medium of exchange.

Consultant 1, 2, 3, and 6 stated with surety that cryptocurrency does not meet all the properties of a fiat currency and therefore cannot be classified as a currency. Consultant 3 insisted that the cryptocurrency is not legal tender and are not backed by the central bank or the state. Consultant 7 suggested that the cryptocurrency can be used as a medium of exchange but not a unit of account or store of value.

Consultant 8 noted that cryptocurrency value cannot be traced to a valuable commodity such as gold and there the value is not certain. Also, its pricing is very volatile.

Digital currency

Consultant 7 and 2 also mentioned the introduction of the digital services tax by the Kenya Revenue Authority and introduced the perspective of cryptocurrency classification as a digital currency. Consultant 2 explained that cryptocurrency could fit very well in digital currency definition and therefore should be subject to DST. He further added that the government is yet to legalize cryptocurrencies, so it is unclear whether the cryptocurrencies had been put into the account in the DST.

4.5.4 Tax laws and regulations in Kenya

The use and handling of cryptocurrency in Kenya is influenced by the existing legal framework in terms of legality, taxation, investments, and reporting. The responds had varied opinions on how the classification of the

cryptocurrencies impacts the tax laws and regulations as discussed below.

Income tax act and cryptocurrency

All the consultants were aware that income derived in Kenya should be subject to taxation under the income tax Act of Kenya. Consultant 2 and 7, however raised the issue of the amendment of the income tax Act through the finance Act 2020 and introduction of Digital tax Act. Consultant 2 believed that the introduction of the DST was to tap into the revenue from the digital currencies such as bitcoins.

Consultant 8 explained that the taxation of the income from cryptocurrencies depends on the purpose of holding the cryptocurrencies and the nature of the transaction. From his understanding, he derived that the classifications would directly impact the treatment for the purpose of taxation as per the Income tax Act.

VAT Act

Consultant 1 believed that the classification of crypto currency as inventory would be subject to VAT. Either input or upon sale of the crypto as output VAT. He however did not understand it would fall under what categorization for the purpose of taxation of value added tax. He explained that the tax authority should clarify on the matter.

Consultant 6 and 4, expressed the concern with VAT on good that are valued in cryptocurrency. Consultant 4 explained that VAT is payable in fiat currency and therefore if the goods are valued in cryptocurrency, it would be necessary to convert the cryptocurrency to fiat money, and this would be a problem because of the high volatility of the cryptocurrency prices.

Anti-money laundering regulation and classification

Consultant 2 expressed the concern that the emergence of cryptocurrency had fueled some evils in the society such as money laundering and terrorism. He said that legalizing the use of cryptocurrencies in Kenya would curtail the efforts to fight against terrorism and money laundering.

Securities laws

Consultant 4 explained that the securities laws dictate the operations of the securities market to protect the investors. He said that holding and use the cryptocurrencies are classified as financial instruments would fall under this Act. He however, expressed that he was not very conversant with the details of the law.

Central bank laws and monetary policy and cryptocurrency

From the responses, it was clear all the consultants were aware of the notice from the central bank to the citizenry warning against transacting and investing in cryptocurrencies. Consultant 6 however, questioned the intention of the central bank in distancing itself from cryptocurrencies. He thought that this means it is an illegal activity.

Consultant 4 highlighted that the government, via the cs for ICT, encouraged the youth to invest in bitcoins to embrace innovation. However, he expressed the concern that this act

brought in more confusion to the public because it was hard to decipher the stand of the government on the cryptocurrency in Kenya.

Kenyan constitution 2010

Consultant 2 explained that the supreme law in Kenya is the constitution. He noted that because of the discrete nature of the cryptocurrency transactions there was concern on misuse of the resources to support illegal activities such as money laundering and terrorism.

Consultant 1 noted that despite the constitution, corruption is the problem. However, he said that the law should constantly be reviewed to put into consideration matters arising from improvement in technology and innovation.

4.6 Relational Analysis

This section analyzes the empirical results from the interviews and discusses them in the context of the research question and theoretical framework. The answers of the respondents will be analyzed to be able to find correlations and differences and connect those to the theoretical framework. The analysis involves the four different themes: assets, revenues and currency classifications and will be discussed with regards to taxation law in Kenya

4.6.1 Asset classification and taxation in Kenya

Inventory

Consultant 1 proposed that cryptocurrency should be classified as inventory. An inventory, according to IAS 2, include assets held for sale in the ordinary course of business better known as finished goods, and those items in the production process for sale in the ordinary course of business also referred to as work in process, and materials and supplies that are used in the value addition process also referred as raw materials. An entity must demonstrate that its business model is reasonable and rational with holding cryptocurrencies for sale in the ordinary course of business for it to be categorized as inventory.

For accounting and taxation, the inventory is measured at a lower cost and net realizable value. Purchases of inventories is a deductible expense in the cost of sales to arrive at the taxable income.

VAT is charged on the supply of goods and services other than an exempt supply, made in Kenya by a person in the course or furtherance of a business. According to the VAT Act of Kenya CAP476, goods are defined as tangible moveable and immovable property and includes electrical or thermal energy, gas and water but does not include money. Cryptocurrencies would therefore not constitute goods under the current VAT definition. On the other hand, services are defined as anything that is not good or money.

Money is defined as (a) any coin or paper currency that is legal tender in Kenya; (b) a bill of exchange, promissory note, bank draft, or postal or money order; (c) any amount provided by way of payment using a debit or credit card or electronic payment system. Supply of services is defined to include

(amongst others) the grant, assignment, or surrender of any right and the making available of any facility or advantage. Considering these, cryptocurrencies would not fit within the exemption of financial services. It is thus possible that dealing in cryptocurrency could be deemed a supply of service. A person trading in cryptocurrency will thus need to be VAT registered if he meets the VAT registration thresholds (KES 5 million over 12 months) and would have an obligation to charge VAT.

Intangible asset

The International Accounting Standard (IAS) 38 describes intangible assets as ‘non-monetary assets which are without physical substance and identifiable, either separable or arising from contractual or other legal rights.’ The OECD (2015) provides that an intangible asset is an asset that is neither a physical nor a financial instrument, but one capable of being owned or controlled for commercial purposes, whose use or transfer would have been compensated had it occurred between independent enterprises at arm’s length.

In Kenya, intangible assets are amortized to lessen the taxpayer’s burden. If a cryptocurrency is acquired for speculation purposes, it’s the income from its disposal would be subject to capital gains tax.

4.6.2 Currency Classification and taxation in Kenya

Consultant 2 and 7 believed that cryptocurrency could be classified as a digital currency and would fall under the recently introduced DST tax. According to the (Finance Act of Kenya, 2020) a new tax on digital tax services was introduced and was to be implemented from 1 January 2021 at the rate of 1.5%. The Finance Act 2020 defines a digital marketplace as a platform that’s enables directed interaction between buyers of goods and sellers of goods and services through electronic means. A discussion by one of the revenue authorities upon introduction of the digital services act, said, “The world is getting more digital. We now have digital wallets. As the law is, any person who will be offering a digital service – crypto is digital, the platform is digital, the acquisition process is digital, the process of payment is digital – in that respect, DST will be applicable on cryptocurrencies.”

4.6.3 Revenue Classification and taxation in Kenya

Gains realized from the business of buying and selling cryptocurrencies are subject to income tax. If a person or a company holds cryptocurrency as inventory and trades in its ordinary course of business, this will result to trade income that is subject to tax.

Where loans or debt is provided in cryptocurrency, any crypto-interest payable on the debt could be subject to withholding tax. Moreover, management fees paid for certain cryptocurrency services such as the management of crypto wallets could also be subject to withholding tax.

The classification of cryptocurrencies is circumstantial. The events and purpose for holding the cryptocurrencies are

very important in categorizing them for accounting and taxation.

The perspectives and experiences of the informants are very crucial in bringing out the adoption and treatment of cryptocurrencies in the market. Very minimal information and literature are available to entrepreneurs, accountants, policymakers, and tax officers. It is evident that the classifications directly determine the treatment of cryptocurrencies for taxation purposes.

4.7 Future of Cryptocurrency

Respondents were asked to express their thoughts and ideas about the future of cryptocurrencies. The predictions from the consultants were Contradictory with some consultants believing that cryptocurrencies will be the next big technological innovation and others were more uncertain and pessimistic about the future of cryptocurrencies.

However, almost all the respondents implied the need for regulation of the cryptocurrencies considering taxation policies, accounting standards and general legality of the cryptocurrencies.

One responded felt the need for public education on the topic of cryptocurrencies. He noted that there was a huge gap in the available information and literature even to serve as a guide to the tax and accounting professionals.

5. Summary, Conclusions, and Recommendations

The study aimed to determine the level of deepening and classification of cryptocurrency classifications for taxation in Kenya. The information gathered was based on the perspective and experiences of the informants who are believed to be part of the knowledgeable group in the society in issues relating to taxation and accounting of cryptocurrencies.

The results from the interviews point out that the circumstances for the use of cryptocurrency are very crucial in understanding cryptocurrency and classifying them for taxation. Below is a summary of the findings.

5.1.1 Asset classification

The study found out that cryptocurrency can be classified as an inventory. This is ideal in circumstances where the cryptocurrency is held for trading in the ordinary line business. If classified as an inventory the trade income from the business of selling and buying cryptocurrency will be subject to income tax.

The study has also established that cryptocurrency can be classified as an intangible asset. When cryptocurrency is held for investment, under which upon disposal they could attract capital gains. However, the study has identified a need for a policy to determine the technique of valuation of the intangible asset and whether they should be amortized for impairments.

5.1.2 Currency classification

The study has established that cryptocurrency does not meet the definition of a fiat currency nor money and therefore

cannot be classified as cash. However, it has found out that cryptocurrency although is not a unit of account nor a measure for the store of value can be used as a medium of exchange and a method of payment. If the cryptocurrency is used as a payment method, there is a need for a guideline on payment of VAT because the VAT payment must be denominated in KES.

The study has found out that cryptocurrency meets the definition of digital currency and can be categorized as a digital currency and therefore will be subject to digital service tax

5.1.3 Revenue classification

The study has found out that gains realized from the business of buying and selling cryptocurrencies are subject to income tax. If a person or a company holds cryptocurrency as inventory and trades in its ordinary course of business, this will result to trade income that is subject to tax.

Any interest payable on crypto debt should be subject to withholding tax. Moreover, management fees paid for certain cryptocurrency services such as the management of crypto wallets could also be subject to withholding tax (Bowmans, 2018)

The study has identified the need for deliberation on the income from mining cryptocurrencies. This is because the miners are rewarded in cryptocurrencies and not in fiat currency.

5.2 Conclusions

The study found that there is a knowledge gap in the classification and taxation of cryptocurrencies. The interviews responded to the research questions depending on the level of experience and perspective on cryptocurrencies. This indicates that there is a need for a tax and accounting policy for cryptocurrencies to ensure uniformity in the treatment of cryptocurrencies. The policy will provide a guideline for classification which impacts taxation.

Also, in Kenya, there is a tax haven for cryptocurrency operations because the government is silent on taxation. If a policy is generated, there will be certainty on treatment, and this will increase compliance.

Much of the response to this research suggested that cryptocurrency can be classified as inventory and intangible assets. Others felt that cryptocurrency should be classified as a digital currency other than cash or money. All the respondents held the opinion that the circumstance in which the cryptocurrency is held and used are very important in determining the classification for taxation purpose. They also firmly believed that income generated from trade in cryptocurrency and accrued in Kenya should be subject to income tax.

5.3 Recommendations

5.3.1 legality and Legislation of Cryptocurrency

The state should address the issue of the legality of cryptocurrency. This will ensure that the cryptocurrencies are

taken into consideration when creating new policies and guidelines

Policymakers may consider guiding how Cryptocurrencies merge into the existing tax framework. This will provide clarity and certainty to the taxpayers as well as promote compliance and increase the tax revenue.

Policymakers may consider providing guidance that is comprehensive and addresses the major taxable events and income forms associated with Cryptocurrencies. In specific, the tax consequences of several key concepts may be particularly important to cover under income taxes, VAT and property or transfer taxes, to provide clarity to taxpayers.

There is value in reviewing and adapting guidance frequently. The economic environment is very dynamic and a regular review and guidance into the existing legal framework are important in ensuring the laws are relevant and adaptive to the new technological development. The study recommends that the policymakers should take stock of approach adopted by different jurisdictions and use them as a benchmark and prepare for any emerging global trends. There is a need for accounting standards to be developed to serve as a guideline for professionals.

5.3.2 Classification of cryptocurrency as an inventory and intangible asset for the purpose of taxation

The study recommends the need to classify the crypto assets as inventory when they are used as a commodity in the ordinary course of business. However, with this classification, the policy makers will have to recommend the method of valuation of the stock and the treatment of the crypto assets about VAT, to calculate the taxable business income from the business.

The study had also found out that cryptocurrency assets can be classified as intangible assets. There is the need to ascertain whether this asset should be amortized to lessen the tax burden. Also, the regulations should be clear on the income from disposal of the intangible assets on the taxation of the capital gains

5.3.3 Classification of cryptocurrency as a digital currency

The study has found out that the cryptocurrency does not meet the definition of fiat currency and therefore cannot be classified as money. However, with the recent introduction of digital serve tax, crypto currency could perfectly fit into the classification as a digital currency. The policy makers should make it clear whether the cryptocurrency is subject to digital services tax and whether they are classified as a digital currency

5.3.4 Recognition of revenue from Cryptocurrency for taxation

The study recommends that clarity should be provided by the tax authority on the recognition and taxation of revenue

from taxable cryptocurrency events such as trade, mining, hard fork and initial coin offerings

5.4 Areas for future research

The study has identified a gap in the accounting and valuation models for cryptocurrencies. There is a need for research and development of international accounting standard and guideline for cryptocurrencies. The IFRS provides a reference point for accountants to value, remeasure and disclose financial matters

Although this study has studied the classification of cryptocurrency for taxation, there are other aspects of cryptocurrency that remain unexplored. For instance, there are taxable events that result from cryptocurrency transactions such as hard fork events and mining.

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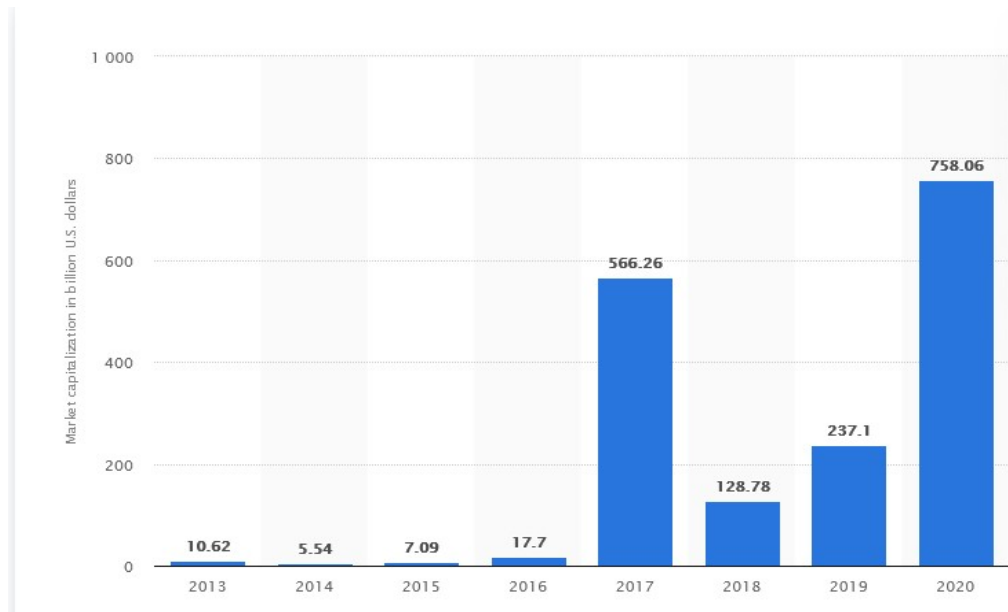
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Annex

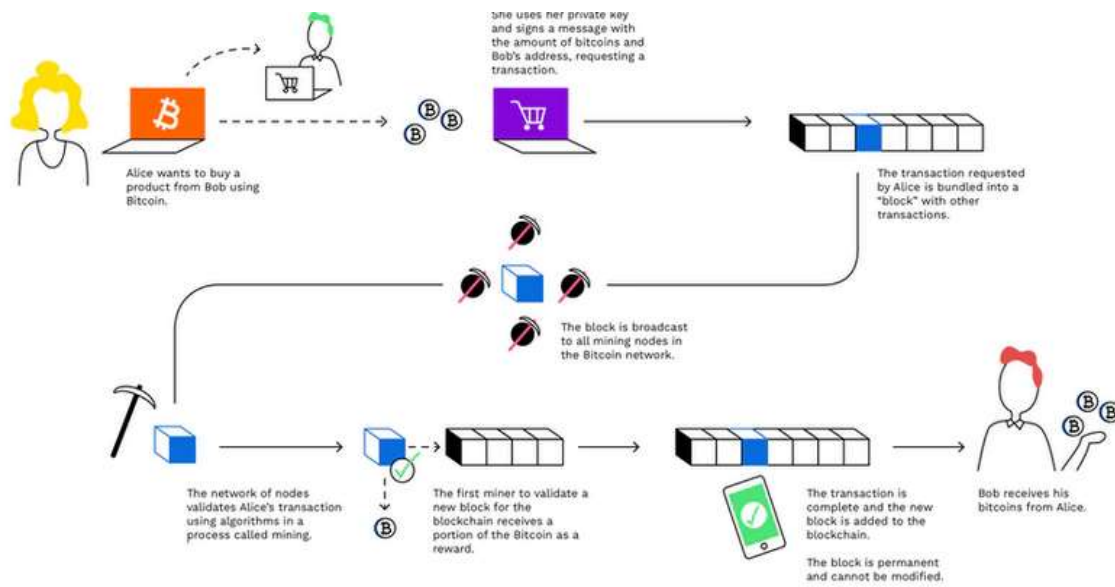
Figure 1.1 Market Capitalization of Cryptocurrencies

The market capitalization of cryptocurrencies from 2013 to 2020 (in billion U.S. dollars)



Source: Statista 2021

Figure 2: Blockchain Technology



Source: Bitpanda.com

Figure 3 Classification of Cryptocurrency around the world

Intangible assets other than good will	Financial instrument or asset	Commodity or virtual commodity	Currency	Legal payment method	Not specified
Australia, France, Chile, Czech Republic, Luxembourg, Nigeria, Spain, Sweden Switzerland** and the United Kingdom	Argentina,* Brazil, Croatia, Denmark, Israel, Japan, Slovak Republic and South Africa	Austria, Canada, China and Indonesia	Belgium, Cote d'Ivoire, Italy and Poland	Japan	United States

Source: OECD, 2020

Figure 4 : Conceptual framework

Independent Variables

Dependent Variable

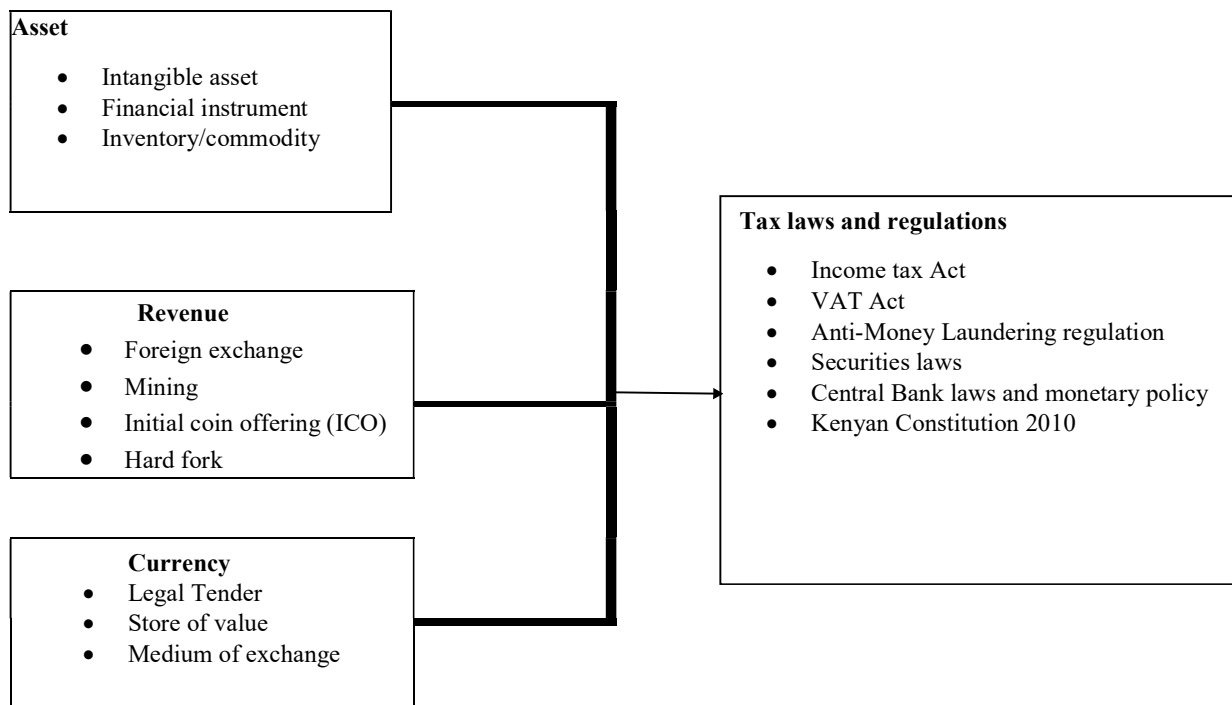


Table 3.1: Target population

Statement	Target Population
Tax consultants KRA	10
Financial Consultants (Big Audit Firms)	20
TOTAL	30

4.3 Information about informants

In table 4 below the informants are presented. A brief explanation of the informants work experience is given. The average interview time with the participants was 40 minutes which excluded information about the interview.

Respondent	Experience	Interview Channel

Consultant 1	The informant has worked as a CFO for 5 years. Presently there are working as a Financial Consultant in a multinational in the Information Technology sector. An informant is a fellow and member of ACCA	phone
Consultant 2	The informant is a tax officer at Kenya Revenue Authority. They are a member of ICPAK	Email
Consultant 3	The informant is a Financial consultant and has worked as an auditor in a big audit firm for 7 years. They are a member of ICPAK	Microsoft teams
Consultant 4	The informant is an auditor at the big consultancy firms	zoom
Consultant 5	The informant is a private consultant in accounting and audit.	Email
Consultant 6	The informant is an IFRS expert, currently working as a finance consultant and IFRS trainer. They are a member of ICPAK	phone
Consultant 7	The informant is a tax officer at Kenya Revenue Authority	skype
Consultant 8	The informant is a tax officer at KRA. A member of ACCA.	Email

APPENDIX I: PARTICIPATION INFORMATION SHEET

Purpose and background of the study

You have been asked to participate in an interview for a post-graduate diploma at KESRA. This study is conducted by Nelly Kinya of the department of tax Administration in the School of, Economics, Accounts and Finance. The purpose of the research is to obtain knowledge about the practical effects of cryptocurrency transactions on tax laws and regulation in Kenya. The limited research and regulation related to the taxation for cryptocurrencies serve as a basis for this study, and we wish to contribute to the limited research and serve as a springboard for future studies. Open interviews will be held with the purpose to gain a deeper and broader understanding of the complex and diverse topic.

Our research question is as follows: “What are the effects and level of deepening of cryptocurrency on the tax laws and regulations in Kenya?”

What your participation contains

To be able to reach our interviewees that are not located in Nairobi telephone/Skype/zoom/Microsoft teams’ interviews will be conducted. Since the study is very exploratory the interviews are held in a broad timespan, starting February 10th, and ending on March 30, 2021. During the interview, only the authors of this research (Nelly) and you the interviewee will be present. The interview will be audio-recorded if you agree and later transcribed. Participation in this study is voluntary and you as a participant will be granted full anonymity. As a participant, you have the right to decline to answer a question or a set of questions or you can end the interview at any point in time. Before starting the interview, the authors will ensure the following with a request for a verbal confirmation.

How data and information will be handled

The data collected from the interviews will be only accessible to the authors of this research. The data will be analyzed, and conclusions will be presented in the project. After approval from the grading committee, the project will be published and will be accessible to the public. Your involvement includes complete anonymity.

I thank you for your time and for helping us carry out this study. If you have any further questions regarding the interview process, feel free to contact me.

APPENDIX II: INTERVIEW INFORMATION

These are the broad concepts that we will discuss during the interview:

1. Personal background (e.g., work and education) and general knowledge about cryptocurrencies
2. General taxation concerns related to cryptocurrencies
3. Three central themes identified when accounting for cryptocurrencies
 - a. Asset perspective
 - b. Revenue perspective
 - c. currency Perspective

If you do not know some of the themes that will be covered during the interview, we will ask you to explain where you would turn to get the information or how you would act in a similar situation. You are not required to know all the areas; we are also interested in finding out what practitioners without experience from it believes should be done. We want to emphasize that we are not seeking a correct answer to any of the questions, but rather your perspective as an accountant on the issues. If you do not know the answer to a question that indicates to us that there is not that much knowledge of the area, which also provides useful answers to us.

APPENDIX III: INTERVIEW GUIDE

Introducing questions

Q1: Can you tell us a bit about your work experience?

- a. How long have you worked in this position?
- b. What is your educational background?
- c. What kind of day-to-day task do you work with?
- d. How much of your tasks are related to cryptocurrencies?

Q2: What is your experience with cryptocurrencies? Both from a work perspective and a possible personal perspective?

Q3: Is cryptocurrencies something that is discussed a lot within the company (accounting firm, KRA)? If yes, how much and in which contexts?

Q4: Do you get any education on cryptocurrencies, both general education and taxation education? E.g., seminars, workshops, or presentations.

Q5: What do you think are the challenges with cryptocurrencies? (General/regulatory/accounting/taxation)

- a. How do you deal with these challenges?

Q6: Do you have a lot of customers that work with cryptocurrencies?

- a. Type of companies? How many companies? Etc.

General accounting issues related to cryptocurrencies

Q1: What would you do if you have a customer that needs accounting advice with cryptocurrencies, but don't know yourself?

- a. Would you reject accepting a client if they are trading with cryptocurrencies? Are the amounts important? E.g., risk increases.
- b. Does it send warning signals related to for example earnings management if they have cryptocurrencies. (E.g., money laundry, gambling, litigation risk etc.)
- c. Does the size of the holdings matter if it is of material amounts?
- d. How would you handle such warning signals?

Q2: Would your advice a customer differently depending on which type of cryptocurrency they are using. Assuming two companies are identical and using different kinds of cryptocurrencies. (E.g., Bitcoin or Ethereum)

Q3: Do you know anything about the tax-related issues to cryptocurrencies?

Taxation and cryptocurrencies

I have identified three central themes/classifications that the questions will be about asset perspective, revenue perspective and currency. I will ask questions regarding all three areas, and I am not seeking any "right" answers, rather your experience and your beliefs on how it should be done. You are not required to know all the areas; I am also interested in finding out what practitioners without experience from it believes should be done.

Assets

Most literature covers asset classification and related issues. We will have some central questions based on the process of accounting and taxation for assets.

Process of classification for assets: Does it meet the definition of asset → Asset classification → Recognition of asset → Valuation → Accounting → Taxation

Q1: Can you see any general issues or challenges related to the process mentioned?

Q2: Regarding the classification of an asset, what type of asset do you think cryptocurrencies should be classified as? Or what do you recommend your clients classify it as?

Q3: What are the circumstances that affect the asset classification? E.g., type of business or purpose of holding cryptocurrencies.

Q4: How do you handle the recognition of assets? For example, problems with measurement reliability of initial cost/value and if there will be future economic benefits. *Recognition criteria: 1. Any future economic benefit associated with the item will probably flow to or from the entity and 2. The item has a cost or value that can be measured with reliability*

Q5: Do you have any knowledge or comments on the valuation of the asset?

Q6: How would you handle amortization/impairments? E.g., how often would you do impairment tests?

Q7: Is there anything regarding assets that you think we have missed? Or do you have any further comments on it?

Revenues

Q1: If a customer accepts cryptocurrencies as a payment method, how does the accounting processes look like. How does it differ from the normal revenue process?

Q2: Are there any issues that you must handle in accounting for revenues from cryptocurrencies? (e.g., revenue recognition, exchange valuation.)

Q3: Do you as a consultant have to access the client's revenue bases to ensure that all revenue transactions are recorded. If no, how can you confirm that all transactions are being transferred to the company and not elsewhere?

Q4: How are credit times handled when it comes to cryptocurrencies?

Currency

Q1. Do you think cryptocurrencies meet the definition and characteristics of a currency or money? In terms of:

- a. store of value
- b. Scarcity
- c. The medium of exchange?

Q2. Do you think cryptocurrencies should be recognized as a currency for taxation?

Final Questions

Q1: We have identified three different themes regarding the issues and challenges when classifying cryptocurrencies for taxation. Do you think some other perspectives should be considered?

Q2: How do you think the future looks like for the accounting and taxation for cryptocurrencies? E.g., IFRS standards, tax regulations etc.

Q3: Is there anything that you want to add or highlight the topics covered in the questions?

Q4: Do you have any questions regarding what we have talked about today? Conclusions

Thank you for your participation, the data will be transcribed, analyzed, and compared to conclude our research. We will send the finished work to you if you would be interested.