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TAXATION OF BITCOIN TRANSACTIONS IN MAURITIUS: A COMPARATIVE STUDY WITH THE US AND ITALY

Ambareen Beebeejaun [1], and Lubnaa Dulloo [2]

[1, 2] *(Department of Law, Faculty of Law and Management, University of Mauritius, Reduit, Mauritius)*

Abstract: *Bitcoin is a virtual cryptocurrency that is found only in electronic wallets and is defined as a digital, decentralised and pseudonymous form of currency that is neither backed nor issued by the government. However, due to its inherent characteristics, bitcoin transactions entail high risks of tax non-compliance and tax evasion. Hence, this study aims to focus on the efficiency of tax regulation concerning bitcoin transactions in Mauritius in terms of tax imposition and collection and to identify loopholes in the present legal provisions. In order to achieve this research objective, the methodologies for the research are in essence comprised of the black letter approach which will analyse the legal provisions relating to bitcoins in Mauritius. A comparative analysis will also be conducted to find out the corresponding legal provisions relating to bitcoin transactions in the US and Italy. Eventually, the study recommends treating bitcoin as property or foreign currency for tax regulation. Consequently, it is suggested that the Mauritius Income Tax Act 1995 be amended to charge bitcoin income in the form of either a property tax or capital gains in order to be included in the definition of gross income. The study also recommends that the Mauritius Revenue Authority issue guidelines pertaining to the tax imposition and reporting mechanisms of bitcoin transactions.*

Keywords: Bitcoin in Mauritius, Mauritius and Cryptocurrency, Taxation of Bitcoins in Mauritius, Tax Compliance, Tax Evasion
Research Area: Fiscal Law or Taxation
Paper Type: Research Paper

1. INTRODUCTION

During the past few years, there has been an important evolution in the area of internet currency and notably, in digital currencies. Cryptocurrencies have emerged and numerous decentralised currencies have been created among which is the bitcoin. Bitcoin is considered to be the most popular decentralised currency due to high inflation in its value (Bal, 2014). Estimates show that the number of bitcoin used in 2009 was 5.8 million bitcoin which drastically increased to 18.13 million Bitcoins in 2019 (Anon, 2020).

Witnessing the level of popularity of bitcoin usage as a digital currency raises a number of legal questions such as taxation, financial regulation, and money laundering dangers. Generally, in an absence of an appropriate legal framework regulating a system, there is a high probability that there will be abusive usage. In fact, the notion of a completely independent and decentralised currency has existed for a long time back. In 1976, the Nobel laureate Friedrich Hayek came up with a proposal of having a stateless currency. He was of the opinion that currency under a central government was at risk when it comes to political instability and economic growth (Bal, 2014). Thereafter, in 2007-2008, the world witnessed a disastrous financial crisis (Cook et al., 2018). At that time while Cyprus was thrown into a deep recession due to its banking crisis, Greece, Italy and Spain were victims of economic misery (Sonderegger, 2015). Consequently, the advent of the bitcoin protocol was inspired and was released in 2009 (Cook et al., 2018). In 2009, Satoshi Nakamoto (a pseudonymous hacker) wrote and published a White Paper online, where he depicted a framework composing of a networking system working in a unique way enabling each machine (miner) to grant bitcoin by specific calculations. He finally succeeded in bringing the bitcoin currency to life (Borroni, 2016).

Following the invention of bitcoin, it is now considered as a decentralised virtual currency administered by bitcoin users in a peer-to-peer network (Lambert, 2015). It is digitally created and stored but is not regulated by any government authority or central bank. Accordingly, bitcoin can be used to trade goods and services where it is accepted as a medium of exchange. Moreover, unlike traditional currencies such as the dollar, pound sterling and rupees, it has no legal status in most countries (Tu and Meredith, 2014). Admittedly, while bitcoin transactions are on the rise across the globe, they may also be misused in an illegal way to conduct unlawful transactions. From a tax evasion perspective, Omri Marian (2013) has enumerated the following two characteristics of bitcoin which facilitate tax evasion for offenders, the first one being that bitcoin is not regulated under any specific jurisdiction as it is not issued by a Central Bank or government. Secondly, bitcoin is a pseudonym and as such, users may create as many wallets as they want and resort to bitcoins without giving any personal information. Consequently, they will never be able to get traced and taxed. Therefore, in this regard, tax authorities are faced with significant challenges. For instance, Pr. Houben and Snyer (2018) are of the opinion that the European Union (EU) framework which concerns tax evasion matters, is not updated enough to regulate the use of bitcoin and tax compliance because of the anonymous and independent nature of bitcoin.

In the context of Mauritius, there is no particular legislation governing the regulation of bitcoin transactions at present. Subsequently, so as not to hinder innovative and financial technology activities, the Mauritius Economic Development Board has come up with a Regulatory Sandbox License which offers the possibility for an investor to conduct a business activity for which there exists no legal framework or adequate provisions under existing legislation in Mauritius. This licence is granted to eligible companies under some agreed set of terms and conditions for a defined period. Moreover, while the relevant law related to income taxes is the Mauritius Income Tax Act 1995 (ITA 1995), this Act has not yet been updated to cater for cryptocurrencies. As such, there exist several loopholes concerning both the regulation and taxation of bitcoin transactions in the country. The purpose of this research is, therefore, to bridge the gap in the Mauritius tax legislation and to come up with proper mechanisms to minimise tax evasion and ensure tax compliance for bitcoin transactions. In particular, this study seeks to assess whether bitcoin should be considered as a legal tender, a property or a currency under Mauritius laws and thereafter, to suggest the appropriate and applicable taxation regime. In order to achieve these research objectives, the methodologies for the study are in essence comprised of the black letter approach which will analyse the legal provisions relating to bitcoins in Mauritius. A comparative analysis will also be conducted to find out the corresponding legal provisions relating to bitcoin transactions in the US and Italy. Indeed, the US has been selected for the comparative study since the country is a highly developed one that has actively updated its laws concerning the regulation and taxation of bitcoins. Furthermore, Italy has also been chosen for its innovative advancement in tax regulations of bitcoins.

In the light of the above, at present, there is little literature on the researched topic and this study will be amongst the first academic writings on the effectiveness of the ITA 1995 concerning the taxation of bitcoins in Mauritius. The study is carried out with the aim of combining a large amount of empirical, theoretical and factual information that can be of use to various stakeholders and not only to academics. While the first part of this paper has introduced the concept of bitcoins as a cryptocurrency, the research objectives and methodologies, Part II will review some existing studies regarding the nature of bitcoin transactions, the taxation framework of bitcoins across the globe and the tax compliance status for bitcoin transactions. Part III and Part IV will assess the corresponding legal provisions on taxation of bitcoins in the US and Italy respectively. The final Part V will provide some recommendations for Mauritius to adopt based on the comparative study conducted and will conclude the paper.

2. LITERATURE REVIEW

This literature review aims at providing an overview of the different approaches taken by different jurisdictions, including Mauritius for the tax treatment of bitcoin transactions. Accordingly, the focus will be on the principles of taxation primarily to assess whether virtual income should be taxed.

2.1 Income Tax Aspects of Bitcoin – An International Perspective

Due to the rapid development of technology, the law is not always updated in line with new inventions. For instance, virtual currency is one of the situations where laws lag to regulate (Bal, 2013). While bitcoin represents an advancement in the financial sector and acts as an alternative for payment, it entails a number of risks. According to Bal (2013), bitcoin transactions leave no trace as it is a pseudonym transaction and there is no third party that could store users' identity. In this respect, full disclosure regarding bitcoin transactions and users is necessary in order to have tax compliance.

In the context of tax collection, income tax is relevant to people who receive "income" subject to taxation for the relevant tax period. Therefore, "income" is taxed as per the definition of income of the relevant jurisdictions and it does not depend on whether the income is generated from a bitcoin transaction or not (Bal, 2014). Hence, it follows that Schwanke (2017) is of the view that specific points should be considered for the taxation of bitcoin transactions, namely:

- Information of the taxpayer and the transactions should be digitalised, and
- Real-time tax reconciliation must be achieved.

Furthermore, some academics are of the opinion that because bitcoin is anonymous, it is not subject to taxation (Adenour et al., 2020). On the other hand, scientists think that traditional tax evaders have opted for tax haven regions to do their malpractices with bitcoin as well. From the different perspectives, it can be observed that anti-tax incentive processes have not been effective for tax evasion in bitcoin transactions. The problem is one: there is no specific law under which bitcoin is regulated. This will have an effect in the future where tax evaders will opt for bitcoin transactions to unjustly enrich themselves (Ulger, 2018). Emery (2016) therefore concluded that bitcoin has an alarming risk to increase tax discrepancy and will, consequently be considered as *'super tax haven'.*

2.1.1 Tax Systems and Bitcoin

Fundamentally, the author Aleksandra Bal (2013) makes the difference between two types of tax systems; global and scheduler. A scheduler tax system distinguishes the different ways of earning income, such as through employment, investment and business income, among others. It then calculates the gross income and deductible expenses for each one category separately. Conversely, for a global tax system, all revenues and expenses are regarded as one for the calculation of net income (Bal, 2013).

(a) Scheduler tax system- Germany

The German tax system is known to be a scheduler one. In particular, S2 (1) of the Individual Income Tax Act provides for the tax levied on seven income derivatives. Hence, virtual income can thus be considered in the category of business income and miscellaneous income. Business undertakings are done with the aim to make profits and to achieve so, there should have interaction with the third party. Thus, the profits made will be subject to taxation. However, Bal (2013) explained that a different event may trigger the taxation of bitcoin transactions when it is exchanged with goods and services on the condition that it is done regularly and with the aim to make profits. Therefore, in a scheduler system, it can be observed that the item should be classified first into their respective category. Thereafter, for digital currencies to be taxed as a business income, they should be regular and large-scale transactions.

(b) Global tax system- United States

Akins, Chapman and Gordon (2014) are of the opinion that when something of value is invented by people, they tend to increase its net worth. In other words, it means that it has an 'accession to wealth.' In the case of *Commissioner v. Glenshaw Glass* (1955) 348 US 426, the Supreme Court held that *"Income includes undeniable accessions to wealth clearly realised, and over which the taxpayers have a complete dominion."* Accordingly, from this case, three elements have been identified which will trigger a taxable event:

1. The taxpayer must have had an increase in his net worth,
2. He must have the monopoly over the value, and
3. There must be a realisation event.

For instance, a scenario to illustrate is as follows: a gold-miner set out to land and begins to dig for metal-gold. After hours of hard labour, he finally collected this metal-gold. Later, he sells them and receives a sum of money over which he has controlled. That exchange of gold for money is a taxable event and therefore, he will be taxed.

It can thus be observed that gold mining and bitcoin minings are two similar yet different activities. While both minings lead to an increase in the net worth of the miner, there are other factors that make them different. Firstly, bitcoin miner does not disclose the initial asset which will eventually enhance his net worth. Instead, the Bitcoin system automatically and pseudonymously creates a new value upon the achievement of the mining. Secondly, upon the completion of the mining, a new blockchain is created which the Bitcoin miner will be the owner of. That blockchain will contain bitcoin currency which means that the miner has been rewarded. Nevertheless, as per the case of *Glenshaw*, the only element which remains is the 'realisation event' (Akins *et al.*, 2014).

Consequently, in the case of the gold-miner, the realisation event does not occur unless he exchanges the gold. However, as for the case of bitcoin-miner, the Internal Revenue Service (IRS) has stated that as soon as bitcoin mining is seen to be competent for trade, it is taxable. In other words, the mere existence of bitcoin entails it being taxable (Akins *et al.*, 2014). In this respect, S61 of the Internal Revenue Code (IRC) provides "*… gross income means all income from whatever source derived."* It is implied by S61 that gross income includes anything which is of economic value. It can be concluded that the existing law is not in conformity with the above but presses on the taxable event to occur.

2.1.2 Regulation Adopted in Different Jurisdictions

The treatment of the virtual currency system is different around the globe. While some countries, such as Australia, New Zealand and Singapore encourage the use of virtual money in every aspect, others have adopted a rather negative approach towards it, such as China, Indonesia and Russia. On the other hand, some countries have adopted a wait-and-see approach and have been silent on the regulation mechanisms.

(a) Prohibited Regulation

China, for instance, is the only country that has successfully banned the use of bitcoin within its jurisdiction. This restriction was set in 2013 when Chinese citizens had been victims of theft and fraud. The People's Bank of China declared the ban of bitcoin to protect its citizens (Guadamuz, Marsden, 2015).

(b) Selective Regulation

(i) The United Kingdom

The UK has taken a rather proactive stand in view of regulating the taxation of bitcoin and its transactions. Her Majesty's Revenue and Customs (HMRC) has published a guideline paper providing for the tax treatment of income received and other related activities made from bitcoin transactions. The HMRC has provisionally classified income received through the transactions in bitcoin similar to any other monetary transactions. However, due to Brexit, there are expected changes vis-à-vis the tax treatment of bitcoin.

(ii) Poland

As per the Polish tax law, bitcoin transactions are taxable. In fact, in an official correspondence dated 4 April 2013, the Minister of Finance gave the following statement, thereby averring that bitcoin is legal:

"… The presence and transactions in virtual currencies in the territory of the Republic of Poland infringe neither Polish nor European law… Acquires income shall be taxed on general terms…"

In the context of Poland, the author Kowalski (2015) is of the opinion that when bitcoin is exchanged, it is considered as a sales transaction of bitcoin paid with a traditional currency. He concluded from a personal income tax law perspective, that such transaction is classified as being taxable under Art. 9 of Polish Income Tax Act.

Moreover, under Polish law, Bitcoin is also classified as a taxable item when used for trade. For instance, it is an exceptional case in Poland where Bitcoin is used to buy aeroplane tickets from *Air Lithuanica*, a bid at *Ebay* auctions, buying food at *Bobby Burger* restaurant in Warsaw. Therefore, from a legal point of view, such scenarios are classified as 'barter contract'. It means that there is an exchange of goods and services with no obligation to pay the price. Thereupon, as the Supreme Court of Poland[1] stated that "*barter is a cashless transaction which leads to the exchange of goods of exactly the same value and is a compensation trade.*" The Director of the tax authority of Poland consequently classified the difference between the revenue and the revenue-related costs for taxation (Kowalski, 2015).

(iii)Japan & Spain

Japan has classified Bitcoin as a financial asset and Spain, in 2014, has attributed Bitcoin to be an official payment system. This decision was reached after an assessment was done to consider the frequency of Bitcoin's usage. As a result, the tax authority of Spain has concluded that the use of virtual currency should be made legal and taxable (Drozd *et al.*, 2017). Misnik (2017) therefore observed that the legalisation of virtual money is highly dependent on the economic development of the country.

(c) Specific Regulation Proposals

Some countries have proposed to draft laws pertaining specifically to virtual currencies. For instance, California has proposed a Virtual Currency Bill. The Bill requires the registration of a specific regulatory body in order to get involved in any virtual currency transactions. It also provides the definition of virtual currency. Furthermore, France has taken a significant step to regulate bitcoin in 2014. Due to its anonymity, bitcoin transactions are considered a threat in terms of tax and money laundering. Therefore, France came up with clear and detailed regulatory measures for virtual currencies (Guadamuz, Marsden, 2015).

(d) Wait-and-See Approach – Ukraine

In Ukraine, barristers took a rather doubtful stand towards bitcoin. For instance, Andrii Chornous, a lawyer at the international law firm 'INTEGRITES', is of the view that bitcoin needs to be duly regulated in order for the court to be able to take a stand for bitcoin cases. Moreover, not only are lawyers sceptical about the issue of bitcoin regulation, but the National Bank of Ukraine (NBU) also portrayed a negative attitude. Consequently, in an official communiqué dated 8th December 2014, the NBU stated that bitcoin is not backed by any institutions or authorities. The NBU also emphasizes the fact that bitcoin is a 'money surrogate' and that it has no interfering value. The NBU also discourages citizens to use such means to purchase goods and services due to potential risks of loss of funds. Till date, Ukraine is silent on the regulation and the issue of bitcoin (Inshyn *et al.*, 2018).

2.2 Principles of Taxation and Bitcoin

This part of the research will analyse whether income should be taxed for transactions made from Bitcoin. This analysis will therefore focus on the principles of taxation. Indeed,

[1] Civil Chamber of 26 August 2004 (ref. No. I CK 210/04)

the principles of taxation were identified by Adam Smith (1776) in his book *The Wealth of Nations.* These principles are equity, certainty, convenience and efficiency. Also, albeit virtual currency is used across borders, the principles laid in the Ottawa Report (1998) can also be used. These principles are neutrality, simplicity, effectiveness, fairness and flexibility.

(i) Equity

The most basic principle of personal income tax is the 'Ability to Pay' principle where the payment of tax is done in a fair and reasonable way by taxpayers, proportional to their income. However, bitcoin is easily accessible to use but its usage depends on whether people want to purchase it or not. Consequently, it can have a negative impact on its value and cannot be used as an indicator to test the 'ability to pay' of a person. An example is given by Bal (2014) which illustrates how the taxation of bitcoin transaction is inconsistent with the equity principle. It is as follows: *"A person who sells goods worth €100 for 2 Bitcoins and makes a profit of 1 Bitcoin worth €100 has to pay tax on €100. The profit of €100 exists only virtually. Assuming a tax rate of 30%, the tax liability would amount to €30. At the time of the tax payment, the value of Bitcoin drops to €10. If the taxpayer exchanges his 2 Bitcoins, he will obtain only €20. The transaction result in a loss of €80, but the taxpayer is required to pay tax of €30".*

Therefore, it can be deduced that there is no proportionality as to the income received and the tax paid. It can clearly be seen that there is a difference between a traditional currency and a virtual currency income tax. A different treatment between virtual and real income are required based on equity (Bal, 2014).

(ii) Certainty and flexibility

The OECD (1998) recognises certainty as a principle of taxation which entails a tax system to be explicitly clear so as to enable taxpayers to understand the consequences of their activities on tax. The European Commission (1998) also presses on clear and transparent tax obligations for taxpayers through legal certainty. The situation of bitcoin is completely the opposite due to its uncertain nature. A bitcoin user may not be aware of the transactions' tax implications and even if he knows, he may not know about the procedures to pay tax and the classification of the Bitcoin in order to calculate tax liability (Bal, 2014). Therefore, Bal (2014) encouraged tax authorities to establish tax guidelines for bitcoin.

However, the establishment of a guideline may be criticised on the ground that virtual currency keeps changing and the guideline or any other enactment may be obsolete after a certain period of time. As a result, the certainty principle must be viewed in conformity with the tax system's evolving approach (OECD, 1998).

(iii)Effectiveness, Efficiency and Simplicity

Tax Authorities should ensure the effective and efficient administration of taxes. It should make sure that tax revenue is collected at the right time. This entails the concept of effectiveness which is doing the right thing and efficiency, meaning in the right manner (Bal, 2014). As a result, the risks of tax evasion would be controlled and appropriate sanctions would be established in cases of the infiltration of such malpractices (OECD, 1998).

From a bitcoin point of view, if the taxation of bitcoin brings in revenues to the government, it means that it is serving the purpose of taxation and proved to be effective.

Nonetheless, the principle of efficiency may not easily be satisfied. For instance, when tax is imposed on the income derived from a bitcoin transaction and on the profits made from the conversion of Bitcoin to real currency, this situation represents a problem to both the taxpayers and the tax authority (Bal, 2014). That problem would have been solved if the tax authority would establish at which level bitcoin should be taxed: when it is converted into real currency or when income is derived from a virtual transaction.

Moreover, the tax system is based on '*voluntary compliance'* and taxpayers have the discretion to disclose their financial transactions to the tax authority. The citizens of a country, however, have the legal duty to pay taxes as per their income (Seer, 2013). Again, when we look at virtual currencies' situations, it is most unlikely that bitcoin users will report their income derived from Bitcoin transactions when they know that such transactions are pseudonymous and decentralised. Therefore, it is largely impossible for tax authorities to trace such transactions. The problem again is the risk of non-compliance with tax regulations. Lederman (2010) therefore recommended the involvement of a third party for tax assessment. As a result, that third party will act as a mediator to retrieve information from the taxpayers for the tax authority. This information will be kept in a database (Bal, 2014).

Therefore, from the above-mentioned principles, it is deduced that taxpayers with traditional income and virtual income cannot be treated in the same way since taxes are only paid with traditional money in most jurisdictions. As such, bitcoin users will have to exchange bitcoin into the legal tender to pay taxes. Moreover, due to the properties of bitcoin, it is difficult to trace a bitcoin transaction and the taxpayer's identity. Obviously, the latter will probably not be required to disclose his identity and thus, no compliance. The taxing of bitcoin also implies a lot of additional mechanisms and hence, from the author Bal's (2014) perspective, virtual income cannot be taxed as per the principles of taxation.

2.3 The Evolution of Bitcoin in Mauritius

Following the discussion on the concept of bitcoin across countries, it is now imperative to focus on the evolution of bitcoin as a virtual currency in the context of Mauritius. Primarily, the introduction of bitcoin in Mauritius started with a negative note due to malpractices committed by hackers and criminals of digital currencies. Along these lines, Mr Navin Beekarry, Director of Independent Commission Against Corruption (ICAC), disclosed that during an investigation, the Mauritius Police Force have found a bitcoin wallet on the phone of some drug traffickers. He stated that the bitcoin wallet was used to undertake unlawful transactions and to conceal all traces of such activities. Mr Beekarry further stated that bitcoin is a way for hackers and criminals to carry out their illegal activities secretly. It was also averred that digital currency involves a number of regulatory matters, among which are the Anti-Money Laundering (AML) safety, computer protection and tax regulation (Beekarry, 2017). Similarly, in August 2018, the Mauritius Financial Services Commission (FSC) reported that there was an alleged false local company named 'Jennocrypto' which provided customers with a number of virtual currencies' services. It was not a licensed company by the FSC but portrayed to be one to its customers (Partz, 2018).

Subsequently, to keep pace with international developments and in an attempt to be positioned as a pioneer of the fintech industry in the African region, Mauritius has come up with a series of regulations and guidelines to facilitate the use of virtual currencies, which the following section will address.

2.3.1 Regulatory Responses to the Emergence of Bitcoin

The approach of Mauritius towards the use of bitcoin has evolved over time. In 2013, the Bank of Mauritius (BoM) has issued a warning whereby informing the public to be vigilant when dealing with virtual currencies. The BoM went on to say that virtual currencies are unregulated and as a result, there are potential risks attached to them (Virahsawmy, 2018).

However, the Board of Investment in Mauritius has nowadays adopted a more liberal approach towards bitcoin (Virahsawmy, 2018). The Regulatory Sandbox License was published in 2017 which allows activities to operate even though they are not regulated by any specific legislation or code. Accordingly, a number of licenses have already been issued to a number of companies. Despite the abstention of the BoM towards virtual currencies, the State Bank of Mauritius (SBM), in collaboration with the Secured Automated Lending Technology (SALT), has set up a mechanism to allow customers to use bitcoin for loans' guarantee (Odhiambo, 2017). The Chairman of SBM Group stated that "*this relationship can enable the SBM to… providing an effective manner in which to participate with the world's most rapidly expanding asset classes.*"

Furthermore, there are a number of companies in Mauritius which are now dealing with blockchain. For instance, Consensys, an Ethereum start-up, is moving in the development of blockchain solutions and has chosen Mauritius as its principal place of business activity. Likewise, in 2018, Rogers Capital and BlockCerts, a private blockchain forum, have joined together in order to enlarge the blockchain vision in Africa (Ah Chuen, 2018). In addition, Blockchain Advisory (Mauritius) Foundation and Co-Founder of The Mauritius Ethereum Foundation are Non-Governmental Organisations (NGOs) that are established in Mauritius for the promotion of blockchain technology in Mauritius. Therefore, it can be observed that Mauritius is encouraging the public and corporations to get involved in the blockchain sector.

Additionally, the FSC has published a draft of a regulatory framework for crypto custodian services in 2018 (Partz, 2018). In fact, Mauritius is the first jurisdiction to make such a guideline for the custody of digital assets. This regulatory framework seeks to regulate the ownership of virtual assets. The Financial Services (Custodian services (digital asset)) Rules 2019 defines a digital asset as:

1. *Any token, in electronic or binary form, which represents either the holder's access rights to a service or ownership of an asset;*
2. *A digital representation of value which:*
    1. *is used as a medium of exchange, unit of account, or store of value but which is not a legal tender, even if it is denominated in legal tender;*
    2. *constitutes assets such as debt or equity; or*
    3. *provides access to a blockchain-based application, services or product.*

Also, the owner of virtual assets Licence, being a financial institution, will have to abide by the AML and Counter-Terrorism-Financing (CTF) laws and the Financial

Intelligence and Anti-Money Laundering Act 2002 (FIAMLA). It should be highlighted that virtual currencies are considered as an '*asset-class for investment'* and are not classified as legal tender in Mauritius (Partz, 2018).

2.3.2 Taxation of Bitcoin Transactions in Mauritius

Mauritius has set up non-binding guidelines concerning licensing and money laundering with regards to bitcoin transactions. However, nothing has been done yet concerning the taxation of bitcoin transactions. Basically, Mauritius has not set up any specific provisions or guidelines dealing with the use of virtual money. Also, the Mauritius Revenue Authority (MRA) has not issued any rulings concerning the implications of tax on bitcoin transactions. In this context, it becomes imperative to assess the underlying nature of bitcoin transactions to deduce whether they form part of taxable gross income.

In fact, the Income Tax Act 1995 (ITA) imposes a tax on income derived in Mauritius, whether the person is resident in Mauritius or elsewhere. The tax system of Mauritius is regulated by the same ITA and is monitored by the MRA. A tax rate of either 10% or 15% on chargeable income is levied, depending on the amount of taxable income that a person derives during an income year. Accordingly, Section 10(1) of the ITA 1995 defines gross income as:

(a) Any advantage in money or in money's worth…
(b) Any gross income derived from any business…
(c) Any other income derived from any other source (*Emphasis Added*).

With regard to S10(1)(a) of the ITA, the case of Tennant v. Smith (1892) AC 150 [1892] UKHL 1 clearly sets out that income tax cannot be charged on something which is not convertible into money. The Court stated that *"the value of the residence is not an emolument of office in respect of which the agent is chargeable with income tax, and is not to be included in estimating the total amount of the agent's income…"*

In the light of S10(1)(b) of the ITA, business is defined by S2 of the ITA 1995 as including *"any trade, profession, vocation or occupation, manufacture or undertaking, or any other income-earning activity, carried on with a view to profit."* In the case of Wisdom v. Chamberlain (1968) 45 TC 92 [1969] 1 WLR 275 [1969] 1 All ER 332, the taxpayer bought silver bullion of a value of £200,000 as a hedge against an expected devaluation of sterling and sold it realising a profit of £50,000. The Revenue Authority held this activity as trading and he was taxed. The Court held that *"as the purchase was done in a short period in order to realise profit, there was an adventure in the nature of trade and therefore, assessed as trading profit."*

However, concerning S10(1)(c) of the ITA, no guidance, regulation or circular letter has been issued by the MRA on the definition of "any other source". Thus, the question still remains whether income from bitcoin transactions will be taxed in Mauritius especially given that bitcoin is not recognised as a legal tender in the country. This uncertainty and lack of regulation are likely to create an unfavourable business environment for corporates that are engaged in blockchain technology and may hinder the economic progress of Mauritius since these corporate bodies will prefer to locate in other jurisdictions that have robust legal, regulatory and appropriate tax framework concerning bitcoins.

While this part of the research paper has emphasised the different responses adopted by various countries concerning bitcoin transactions, the following parts of the study will focus on the classification and tax regulation of bitcoins in the US and Italy specifically.

3. BITCOINS IN THE US

The IRS is the United States' taxation authority, is responsible for the collection of taxes and supervision of taxation compliance. Undeniably, upon the advent of cryptocurrencies, income is being generated through virtual transactions and consequently, there is a need to look into their taxation consequences. In this respect, the Government Accountability Office (GAO) was advised by the Senate Finance Committee to look into any tax implications and tax crimes in relation to cryptocurrencies and other offshore sources of money. The GAO was also advised to evaluate the IRS on such matters. Moreover, the GAO, through a study, found out the loopholes of the IRS on the regulation of virtual currencies (Elwell *et al.*, 2015). In 2014, the IRS has eventually clarified some uncertainties concerning the taxation of Bitcoin (McLeod, 2014).

However, the prime issue which the IRS had to determine is the ambiguity of the nature of bitcoin. In order to regulate and monitor bitcoin transaction, the question to know is whether bitcoin is to be classified as property, foreign currency, or a legal tender? This part of the research paper, therefore, studies (i) the legal nature of Bitcoin in the US, and (ii) the tax regulation of bitcoin in the country.

3.1 Legal Status of Bitcoin in the US

Bitcoin as already mentioned in the earlier part of this paper is a decentralised and pseudonymous digital currency. It is neither issued nor regulated by the government of the US. Therefore, to classify bitcoin as a legal tender is utterly not feasible and as of date, the US dollar is the only official currency of the USA. Thus, for the purpose of taxation, different classification of bitcoin will be considered and the nature of bitcoin as acknowledged by the IRS will be analysed.

3.1.1 Bitcoin as a Currency

In the US, bitcoin may be used to trade since it can be exchanged for the US dollar and hence, in practice, it can be seen as money or a unit of account. Yet, from a legal point of view, bitcoin does not fall in the category of currency as it does not fit in the definition of currency. For instance, in the case of California Bankers Association v. Shultz (1974) 416 U.S. 25, 39 n.14, the Supreme Court defines currency as, *"the coin and currency of the United States or any other country, which circulates in and are customarily used and accepted as money in the country in which it is issued."*

For this reason, it can be deduced that Bitcoin is not distributed by the government of the US and does not fulfil the conditions of 'legal tender'. Subsequently, bitcoin cannot be classified as a currency.

3.1.2 Bitcoin as a Foreign Currency

S988 of the US Internal Revenue Code (IRC) briefly provides for the tax treatment of foreign currency. In fact, the definition of foreign currency is not defined in the IRC or in any case law (Chodorow, 2016). Therefore, the question which is triggered is whether bitcoin may be treated as foreign currency under the US tax law?

In this context, the IRS had issued a Notice 2014-21 (Notice) to clarify the treatment of transactions using virtual currencies and bitcoin for tax purposes. Nevertheless, this Notice 2014 has not explicitly defined the term foreign currency but its notion can be inferred through a thorough reading. Firstly, foreign currency is recognised and regulated by the government and the Central Bank of a country (Chodorow, 2016). Therefore, on this point, since bitcoin is not a centralised currency which is issued by a government, it cannot fit in the definition of foreign currency for tax and other purposes. Secondly, a foreign currency is one that is considered legal tender in its jurisdiction. For example, the US dollar is the legal tender of the US. As such, the IRS Notice highlighted that since bitcoin is not considered as legal tender in most jurisdictions, it cannot be classified as a foreign currency. In addition, the IRS has referred to the Guidance on Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies (FIN-2013-G001), where it is stated that *"virtual currency does not meet the criteria to be considered as 'currency' because it is not legal tender."* On this note, even though the discussion was not on a tax issue, the IRS considered that for a currency to be classified as foreign currency, it should first be recognised as a legal tender in its native country (Chodorow, 2016).

Accordingly, on the above-mentioned two arguments, the IRS concluded in its Notice 2014 that bitcoin cannot fall in the category of foreign currency. Thus, in order to safeguard the interest of the country from illegal transactions, it is imperative for the US government to define foreign currency, without including bitcoin. In this way, it will restrict foreign currency to legal tenders.

3.1.3 Bitcoin as a Commodity

Some scholars advocate for the classification of bitcoin as a commodity (Despande et al., 2014). This is because a comparison is made between gold and bitcoin to the effect that the value of gold is diversified and fluctuated which resembles that of bitcoin.

Indeed, gold and bitcoin share similarities such as fluctuation in value, depending on demands and independence from the issuance of government. From a legal point of view, bitcoin can thus be recognised as a commodity under US law. As per the case of Commodity Futures Trading Commission (CFTC) v. Patrick K. McDonnell, and CabbageTech, Corp 287 F.Supp.3d 213 (2018), the definition of a commodity was quoted from Merriam Webster as, *"an economic good or an article of commerce and was argued that commodities are defined as goods sold in the market with a quality and value uniform throughout the world."* Furthermore, the legal definition of a commodity is given in the case of State ex. Rel Moose v. Frank 169 S.W. 333, 336 (Ark. 1914) as *"any movable and tangible thing that is ordinarily produced or used as the subject of barter or sale."* In other words, bitcoin must be tangible and according to Black's Law Dictionary, tangible means *"either actual or constructive possession which can be exercised over an item."* Consequently, it follows that bitcoin may be considered tangible good because the user has control and possession in his wallet. As for the question of commodity, bitcoin is indeed recognised as such by the US Commodity Futures Trading Commission for trading purposes (CFTC).

However, from a tax perspective, commodities are considered as a Section 1256 contract which is defined by the IRC as *"non-equity options"*. In fact, non-equity options are based on stock index traded on a contract market designated by the CFTC. This is therefore an important factor to consider when classifying bitcoin as a commodity (McLeod, 2014). As a result, it is a contestable issue among authors to qualify bitcoin as a commodity but ultimately, it is the IRS to decide the most suitable nature of bitcoin for tax purposes.

3.1.4 Bitcoin as a Property

Undoubtedly, the IRS has classified and recognised bitcoin as property. In fact, the IRS has published a Notice whereby it explained how existing tax law can be applied to Bitcoin (McLeod, 2014). For example, in the case of US v. Coinbase Inc. Case No. 17-cv-01431-JSC., the Court observed that as per an IRS research, an average of only 850 taxpayers have included in their tax return, property description that is *'likely related to bitcoin'* (Clark and Rynzar, 2019). It was therefore held that *"virtual currencies that can be converted into traditional currency are property for tax purposes".*

Consequently, given that bitcoin is claimed to be 'property', it must therefore fulfil the requirements of the existing tax law, that is, the IRC. Firstly, bitcoin transactions must fit in S61 of US IRC which provides for income gains obtained from trade or business in property. As per the same case of US v. Coinbase Inc., the Court went on to explain that a taxpayer can realise gain or loss following the trade of virtual currency but it will depend on the exchange rate of bitcoin. Secondly, property may be either tangible or intangible goods. The GAO Report (2014) has defined bitcoin as *"digital units of exchange"*. Thus, in the case of Ronnen v. Commissioner of Internal Revenue 90 T.C. 74, 1988 WL 2748 (1988), the Tax Court stated that *"since encoded information of the software can be transferred from one medium to another, the software was intangible and thus not eligible for the investment tax credit"*. Likewise, bitcoin is virtual information, in the form of software, which can be transferred through a peer-to-peer network in a blockchain. Hence, the case of Ronnen may be used as an analogy to explain the intangibility nature of bitcoin. Thirdly, another reason for the IRS to recognise bitcoin as property is the categorisation of bitcoin as a capital asset. The IRS Notice 2014 explicitly provides that it will consider gains and losses from bitcoin transactions as capital gains or losses. Therefore, S1221(a) of IRC defines a capital asset as "*property held by the taxpayer (whether or not connected with trade or business)*". For these above reasons, bitcoin is eventually claimed to be property.

3.2 Tax Regulation of Bitcoin in the US

Being different from traditional currencies, bitcoin undeniably attracts the attention of tax authorities. In fact, the inherent characteristics of bitcoin provoke jurisdictions to think that it will lead them to become a 'tax haven jurisdiction' (Anne, 2019). Therefore, to prevent and eliminate this belief, tax authorities must establish regulations and educate the taxpayers about the method of paying taxes on bitcoin.

3.2.1 The GAO Report

In May 2013, the US GAO published a report in which it pointed out the risks of tax non-compliance associated with bitcoin transactions. The report also highlighted the fact that virtual currency transactions will generate taxable income and should be regulated (Mandjee, 2015). In this respect, the GAO Report provides that the Commissioner of Internal Revenue should find ways to educate virtual currency users of the tax reporting requirements (Wicht, 2016). Thus, through sensitisation, users of bitcoins will be aware of the regulations and taxation.

3.2.2 Tax Treatment of Bitcoin as per Notice

As mentioned earlier, the IRS claims virtual currency including bitcoin, to be property for the purpose of taxation. Given that the use of bitcoin is expanding across the US jurisdiction, the Notice published by the IRS explains the applicability of the existing US tax laws to bitcoin transactions and other digital currencies' transactions. The IRS Notice further clarified the taxation of bitcoin by stating that *"general tax principles applicable to property transactions are applicable to virtual currency's transactions"*.

Firstly, the Notice explains the terminology attached to the virtual currencies. It stressed the fact that virtual currency is not legal tender and is not issued by the government (Lambert, 2015). The Notice also defined bitcoin as a 'convertible virtual currency', defining it as *"a currency that can easily be valued and exchanged for real currency or that acts as a substitute for real currency"*.

What is of concern here is that bitcoin is considered as property. This implies that as soon as it is transacted, tax is imposed on it. Besides, the Notice explained that the taxpayer can report both gains and losses on bitcoin. However, the manner in which the taxpayer considers the virtual currency will affect the way the reporting is done. For instance, in the case where the taxpayer holds bitcoin as a capital asset, he will eventually realise a capital gain or loss where the bitcoin is sold or exchanged. On the flip, where there is no consideration to hold bitcoin as a capital asset, then the gain or loss obtained will be an ordinary one (Lambert, 2015). In this respect, there are several steps involved in calculating and reporting gains or losses out of bitcoin transactions in the US. These are:

(a) Record-keeping of each bitcoin transaction

The first step involves the proper record keeping of bitcoin transactions, Basically, the IRS has warned bitcoin users of the volatility of bitcoins and the need to keep records in a proper manner. More specifically, the IRS envisages taxpayers to store information of every single bitcoin transaction which should be done in a *"reasonable manner that is consistently applied"*. For instance, a taxpayer has received a payment of 10 bitcoin valued at $200 each. After five months, each bitcoin is now evaluated to $500. As the result, the profit of the taxpayer is $300. Therefore, by keeping records, the taxpayer will be able to show his net income is $300 per bitcoin and will be taxed on his net income (Seth, 2019).

(b) Evaluation of the potential gain or loss

The second step is to attribute an amount to the gain or loss from bitcoin transactions. As mentioned in the case of Zietzke v. USA Case No. C19-1234-JCC. United States District Court, W.D. Washington, Seattle. November 25, 2019, *"A taxpayer's gain or loss is determined by looking at the difference between the cryptocurrency's basis and the amount the taxpayer receives in exchange for the currency. The basis "is the fair market value (FMV) of the currency in U.S. dollars as of the date of receipt"*. Further emphasis has been made on the FMV by the IRS in its publication number 544 to the effect the FMV is the selling price of bitcoin. As such, the gain is obtained when the realised amount is greater than the ‘adjusted basis of the property. As for the loss, it is realised when the received amount is less than the adjusted basis (Wicht, 2016).

(c) Classification and reporting of gain or loss

The final step involves classifying and reporting the gain or loss as ordinary income or investment income since this will determine the tax liability of taxpayers. Indeed, various types of bitcoin transactions can generate different gain or loss, which are elaborated below:

(i) Bitcoin as payment for providing goods or services

In this scenario, the holding period is not applicable and the net income is taxed and reported as ordinary income, the tax rate of which varies from 10% to 39.6%, excluding any state income tax.

(ii) Bitcoin obtained through mining

The amount of bitcoin received through mining is considered to be personal or business income. However, a deduction is applicable for the process of mining (Agarwal, 2019). It is again considered to be an ordinary income but there can be a self-employment tax imposed (15.3%).

(iii) Bitcoin as an investment

Investment income is generated through investment property such as stocks and bonds (Wicht, 2016). It is to be noted that in an investment bitcoin transaction, the holding period matters. To this effect, if the event where the net profit is held less than a year, it will be considered as ordinary income. Otherwise, it will be considered as capital gains and a tax rate of 3.8% is imposed on the net income (Seth, 2019). Accordingly, a $3,000 annual deduction is possible and limited for net capital losses.

As seen above, bitcoin is classified differently for various purposes and for the tax treatment of bitcoin, the IRS has classified it as property. Also, bitcoin can be obtained as wages or through mining. The value of bitcoin needs to be converted into the US dollar and will eventually form part of the gross income. However, the Notice imposes a duty on taxpayers to evaluate their bitcoin value and convert it into US dollar as per an exchange rate. Then, the taxpayers have to keep records and report each transaction in a proper manner. It can thus be concluded that the IRS imposed an important obligation on taxpayers using virtual currencies. However, the IRS Notice has no legal force. As a result, there cannot have any penalty imposed on taxpayers in case of failure to comply. While this part of the research paper has emphasised the regulation and taxation framework of bitcoins in the US, the following part of the paper will analyse the corresponding framework in Italy.

4. BITCOIN IN ITALY

Italy is a historical country, preserving its culture and rich heritage (Unbank, 2019). Italy is an EU member state and as a result, its regulatory frameworks are subject to EU directives and legislations. Even though Italians are involved in cryptocurrencies trading, Italy does not have any proper regulation for such transactions (Unbank, 2019). Albeit, as per research done by SEMRush company, bitcoin is among the most used medium of payment for online transactions in Italy (Vidrih, 2019). Hence, this part of the research seeks to analyse the treatment of bitcoin by the Italian Tax Authority for tax purposes and bitcoin's regulation.

4.1 Legal Status of Bitcoin in Italy

According to the ESMA Report 2019, approximately 200 trading avenues were put at the service of bitcoin users to allow them to undertake several bitcoin transactions a year. As a result, the Italian Tax Authority was questioned by taxpayers concerning the tax treatment of bitcoin transactions. In 2016, taxpayers even asked the Italian Tax Authority to submit rulings on income obtained out of bitcoin transactions (Vaselli, 2019).

Primarily, before taxing an income, it should be classified into a certain category. Thus, for the purpose of this study, different classifications will be studied and the nature of bitcoin, as vetted by the Italian Tax Authority will be analysed.

4.1.1 Bitcoin as a Currency

Currency is defined as a medium of exchange, store of value and unit of account that is issued by the Central Bank of the country and is recognised as a legal tender. In the case of Italy, Euro is recognised to be its legal tender. The question which is triggered is whether bitcoin can fit in this category?

In fact, the European Central Bank (ECB) has described virtual currencies as a *"type of unregulated, digital money which is issued and usually controlled by its developers and accepted within the virtual community."* Moreover, the ECB and the European Court of Justice (ECJ) differ in their view on the nature of bitcoin. For instance, in the case of Skatterverket v. David Hedqvist (2015) C-264/14, the ECJ considered a bitcoin transaction to be a supply of services when exchanging into fiat currency. As a result, the ECJ held that such an exchange transaction is equal to a currency transaction and is therefore considered to be legal tender (Chesley, Fernando, 2019).

4.1.2 Bitcoin as an Electronic Money (E-money)

In Europe, the ECB has defined e-money as *"an electronic store of monetary value on a technical device without the intervention of bank accounts."* However, different EU member states have a different meaning of e-money which fit in their jurisdictions (Chesley, Fernando, 2019). For instance, the Directive 2009 2009/110/EC adopted in Italy by a Legislative Decree 45/2012, has explained e-money 'as storage of value in an electronic form such as magnetic storage'. It went on to explain that the movement of credits from the issuer is considered to be a payment transaction. Therefore, it would be wrong to consider bitcoin as e-money because of the characteristics of bitcoin being volatile and anonymous with no connection with a bank account (Rainero *et al.*, 2019).

4.1.3 Bitcoin as a Financial Instrument

The view that cryptocurrencies can be considered as a financial instrument differs among the EU member states. For instance, the Swedish legislation explained that a financial instrument must be taken to be transferable security. Therefore, in the case of Sweden, bitcoin is not transferable security and thus, they are not a financial instrument. On the other hand, even though it is rare that bitcoin is considered to be a financial instrument, in the case of Banca Dati S.r.l. –Univest Judgment (2018) no 195/17 Court of Verona, the Court held that "*the purchase of cryptocurrencies is a transaction that can be defined as highly risky for the investor, therefore obliging those who advertise the sale, to inform the user in advance about the risks associated with the investment*" (Coala, 2018). The Court then considered that the exchange of bitcoin for fiat currency is classified as a financial services transaction (Rainero et al., 2019). However, for tax purposes, this ruling is not applicable.

4.1.4 Bitcoin as Foreign Currency

The fact that bitcoin cannot be considered as legal tender has a significant repercussion on the application of the tax legislation. The Italian Revenue Agency (IRA) has, however, published two interpretative acts, namely the 'Directorate-General for AdE' and the 'Interpellation of the Lombardy Reg. Directorate' concerning the nature of bitcoin for tax purposes (Coinidol, 2019).

Consequently, the IRA has formally explained the mechanism of bitcoin and as such, bitcoin is defined as *"virtual currency, a.k.a, cryptocurrency, used as an alternative to the traditional currency that has legal tender and is issued by the monetary authority".* The IRA has also explained that bitcoin can be used as a means of payment whereby the exchange is done on a voluntary basis without any legal obligation attached. Moreover, bitcoin is used as a substitute for functional currency, for trading and speculative purposes (David, 2018). The IRA has also referred to the EC J's ruling in Skatterverket v. David Hedqvist (2015) C-264/14 where it was held that "*it is common ground that the bitcoin has no other purpose than to be a means of payment and it is accepted for that purpose*" (Vaselli, 2019). For this reason, the IRA has classified bitcoin as foreign currency for tax purposes.

Additionally, the IRA has highlighted that individual bitcoin users will be taxed on the capital gains that are earned out of bitcoin transactions and these will be taxed as 'different incomes' under two conditions, namely (Coinidol, 2019):

1. If the profits are results of fixed-term contracts;
2. Where the bitcoin was possessed in the wallet for a period of more than 7 days and the value more than €51,645.

Nevertheless, tax professionals consider the view that bitcoin should be considered as foreign currency is strongly incoherent with the characteristics and nature of cryptocurrencies. In fact, they contested and stated that due to its volatility and pseudonym, bitcoin does not fit the Italian standard tax rules. As a result, it can be troublesome taxation on an accrual basis (Vaselli, 2019).

On the other side, this view may be counter-argued on the ground that income tax is not calculated on the transactions as such but on the gains made. Thus, at the time of filling the tax return, the profits received from such bitcoin transaction are calculated and converted into the euro through an established exchange rate. Consequently, this specific amount will be entered in the tax return under the category of foreign currency. For that reason, the argument about the volatility of bitcoin is negligible.

4.2 Tax Regulation of Bitcoin in Italy

Italy has not yet enacted any specific law pertaining to the tax regulation of bitcoin transactions. The view that bitcoin wallets are not physical and as a result, transactions emanating from them are not subject to taxation is incorrect (Unbank, 2019). As a matter of fact, taxpayers are not well-guided about the payment of tax on their bitcoin transactions in Italy (David, 2018). Yet, as mentioned earlier, the ITA has published some directives pertaining to the regulation of bitcoin transactions.

The case of Skatterverket v. David Hedqvist (2015) C-264/14 is the starting point of the tax regulation of bitcoin in Italy. Consequently, the IRA has relied on this case law to issue a resolution dated September 2016. The IRA provided that bitcoin transaction in exchange for fiat currency shall be subject to corporate tax (Lavayssière, 2018). Subsequently, the IRA's resolution 2016 shed some light as to the income taxation of bitcoin transactions which are as follows:

Profits made from 'speculative' transactions between bitcoin or the exchange from bitcoin to functional currencies are eligible to the general rules applicable to proceeds obtained from trading of foreign currencies.

1. 'Market price' of bitcoin is subject to annual reporting, similar to assets possessed by Italian residents outside the territory of Italy.
2. Specific virtual currency exchange services are exempted from VAT, the same treatment of foreign currencies.

However, there are exceptions pertaining to the speculation process. In fact, some transactions do produce 'other income' which is subject to a substitute tax rate of 26% even without speculative processes. The first situation is when the bitcoin has been withdrawn from the electronic wallet, the value of which exceeds € 51,645.69 for seven consecutive working days in the same fiscal year, as provided by S67 [1c-ter] and [1-ter] of the Italian Tax Code (TUIR). Secondly, tax is levied on cryptocurrency trading (Giuliano, Brocchi, 2018). The fact that the bitcoin value needs to be converted into functional currency implies the need for an exchange rate. Subsequently, the IRA affirmed that the exchange of bitcoin is to be calculated based on the exchange rate as of January 1 of the tax period. The IRA further explained that since there is no daily update on the exchange rate, bitcoin users should consider the rate provided on the website where bitcoin is purchased (Scampuddu, Nieddu, 2018). In addition, the tax regulation of Italy imposed additional tax obligation on residents in Italy, who have bitcoin outside the territory of Italy. They are under a duty to tax reporting and are obliged to fill in the RW form in the tax return (Scampuddu, Nieddu, 2018). This is actually done for the purpose of monitoring to show the amount of bitcoin they owned. It is to be noted that foreign assets owned by these residents are also specified (Giuliano and Brocchi, 2018).

4.3 Treatment of Bitcoin Transaction as per Personal and Corporate Income

Basically, the tax implication of bitcoin differs between professional investors and individuals. Professional investors who exchanged traditional currencies for bitcoin often make capital gains. As a result, such gains are subject to the corporate tax rate of 24% and the regional tax rate of 3.9%. On the other hand, individuals gaining profits out of bitcoin transactions is subject to a tax rate of 26%, provided that they hold it in an electronic wallet on seven consecutive days (Anon, 2018).

Regarding the involvement of corporate bodies in bitcoin transactions, two companies namely One Life Network Ltd and One Network Services Ltd in Italy were indulged in exchange transactions of tokens to cryptocurrencies, thereby making significant profits. It was assessed by the Antitrust Authority of Italy that such transactions constitute a 'pyramid promotional scheme'. This means a consumer will be receiving a reward when new consumers join in and invest in the scheme. The Italian Consumer Protection Code highly prohibits such transactions. Therefore, in August 2017, the Italian Antitrust Authority considered that these two companies have violated the consumer protection rules and were fined €2,595,000 (Lavayssière, 2018). From a tax perspective, it can be observed that these two companies have been making profits by the conversion of cryptocurrencies to fiat currencies and have evaded corporate taxes which they are subject to as per the IRA's resolution passed in 2016.

In contrast, the IRA affirmed that transactions between bitcoin and activities in financial instruments are similar and therefore, such transactions are Value Added Tax (VAT) exempted. This is provided by Article 135(1) (e) of the VAT Directive 2006/112 and is for the purpose of indirect tax only. Thus, when there is an exchange from bitcoins to traditional currencies, no VAT is applicable (Prisco, 2018).

Further to the above discussion, it is noted that Italy is an EU member state and is therefore subject to both the EU law and its national law. Consequently, any changes in the law of the EU can affect the domestic regulation of the country. For the purpose of taxation of bitcoin, Italy has heavily relied on the decision of the ECJ in the case of Skatterverket v. David Hedqvist (2015) C-264/14 and has come up with a number of strategies to regulate income taxation of bitcoin transactions in Italy. Since the IRA has classified bitcoin as akin to foreign currencies, standard rules of taxation are applicable. However, the only difference is that of the reporting obligation on Italian residents holding bitcoin outside the territory of the country. Also, the difference in taxation of individual and corporate transactions is through the tax rate applicable. The following section of the paper aims at comparing the corresponding tax provisions regarding the treatment of bitcoin transactions in the US, Italy and Mauritius.

5. COMPARATIVE STUDY AND RECOMMENDATIONS

This part of the paper will focus on the recommendations proposed in the light of taxation of bitcoin transactions in Mauritius. For this purpose, a comparative analysis has been carried out to find out the corresponding legal provisions in the US, Italy and Mauritius respectively, as summarised in below Table 1.

Country	Classification	Year of Regulation of Bitcoin	Guidelines issued	Regulatory medium	Tax Rate
United States	Property	2014	IRS Notice	Internal Revenue Code	As payment: 10% - 39.6%, Mining: 15.3% Investment: 3.8%

Italy	Foreign currency	2016	Resolution 72 /E/2016	Italian Tax Code	Corporate: 24% Individual: 26%
Mauritius	-	-	-	-	-

Table 1: Comparative Analysis

As illustrated in Table 1 above, the US and Italy have classified bitcoin as property and foreign currency respectively for tax purposes. While bitcoin got regulated in the US in 2014 through an IRS Notice, Italy regulated bitcoin in 2016 further to a resolution issued by the IRA which is embedded in the Italian Tax Code. The rate of bitcoin taxation differs depending on the nature of bitcoin transaction in the US whereas, in Italy, the rate of tax differs as to whether a corporate body or an individual is involved in the bitcoin transaction. In contrast, it can be seen that Mauritius not yet regulated bitcoin nor has the MRA issued any warning or ruling for the tax regulation of bitcoin.

Nevertheless, since bitcoin is considered to be a global and innovative form of currency that is easily accessible to users around the globe, it is imperative for governments across the globe to regulate the taxation of bitcoin to ensure that no tax revenue is lost (Westhuizen, 2017). In this context, based on the comparative study carried out in this paper, the following section aims at providing some recommendations for Mauritius to adopt and which may be of use to various stakeholders concerned:

(a) Recommendation 1: Bitcoin should be treated as either a 'property' or 'foreign currency'

It is hereby suggested that bitcoin be classified as 'property' under the ITA 1995 of Mauritius. While various countries have taken a different approach towards the classification of bitcoin for tax purposes, the US and Italy have developed a rather clear approach. After considering different avenues to classify bitcoin for tax purposes, both countries have issued guidelines pertaining to the tax treatment of bitcoin. Thus, the IRS has considered bitcoin as 'property' and the ITA classified bitcoin as 'foreign currency'. In this way, both taxpayers and the MRA will be on the same lines regarding the taxation of bitcoin transactions.

(b) Recommendation 2: Amendment of Income Tax Act 1995 to include property tax and capital gain/loss on foreign currency

After having classified bitcoin as a 'property' or 'foreign currency' as the case may be, it is vital to amend the Income Tax Act of Mauritius to formalise property tax and capital gain/loss on foreign currency. As such, when Mauritian taxpayers will receive bitcoin out of a bitcoin transaction, the net income will be calculated and converted into rupees through an exchange rate. Thereafter, any surplus will then be charged property tax or tax on capital gains at the end of the fiscal year.

(c) Recommendation 3: Identity (I.D) verification process should be established

An I.D verification process has to be established to minimise the risk of non-compliance to tax obligations. In this way, it is recommended that the MRA keep a database of bitcoin users transacting in bitcoin. Consequently, the MRA will act as an intermediate and when Mauritian taxpayers purchase bitcoin on a bitcoin website, it will automatically be recorded in the database monitored by the MRA.

As identified through the study, bitcoin is an anonymous form of currency whereby the users of such medium of exchange is completely unknown. Bitcoin is stored in e-wallets and is not issued by the government. Therefore, through the establishment of the I.D verification process, such anonymity will fade.

(d) Recommendation 4: A comprehensive guideline on the reporting of tax information to be issued by the MRA

For clarity and transparency, the MRA needs to issue guidelines when it comes to the record-keeping and reporting of bitcoin transactions. Additionally, the Mauritian taxpayers have to maintain a record-keeping database where he needs to record the amount of bitcoin received, the type of transaction and the timing of such transaction. Consequently, when it is time to fill in the tax return, there is no room for the taxpayer to evade his legal obligations.

The US has come up with a similar reporting and record-keeping mechanism. In such cases, the taxpayer records its transaction at the time he received it. Then, when it is time to fill in the tax return, the profit or loss will be calculated. The taxpayer will be able to show its net income and based on the principle of 'ability to pay', the taxpayer will be taxed accordingly. Likewise, Italy has imposed a legal obligation on taxpayers to report their bitcoin income in the RW form. As a result of reporting, bitcoin users will be identified thereby reducing the risk of non-compliance.

(e) Recommendation 5: De minimis exception should be established

In order to portray Mauritius as a blockchain hub, it is imperative to encourage the use of bitcoin by establishing a less burdensome tax mechanism. For instance, while the US allows for the reporting and offsetting of capital loss on bitcoin transaction, Italy imposes certain conditions for income from bitcoin to be taxed such as a minimum threshold capital gains on bitcoin transactions.

Therefore, a de minimis exception may be adopted whereby taxes will be exempted at a certain value threshold. However, this should be done in such a way so as to benefit both the government and taxpayers.

6. CONCLUSION

Bitcoin is a novel medium of exchange in this era. It is a digital, decentralised and pseudonymous type of currency that can be used as an alternative to functional money. However, a number of legal implications are involved when dealing with bitcoins and all new things relating to the regulation of the technology is a difficult task.

This research has cast a comprehensive view on the approach taken by different countries on the tax regulation of bitcoin transactions. In particular, the study has focused on the tax treatment of bitcoin in Mauritius, the US and Italy. Due to the number of tax evasion through the use of bitcoin across the globe, it is noted that the US and Italy have each issued guidelines pertaining to bitcoin in order to curb tax evasion and promote tax compliance. Moreover, it should be highlighted that both countries have aligned their existing tax legislations to the taxation of bitcoin transactions.

Lastly, recommendations proposed in this study seek to regulate bitcoin in a positive way in Mauritius. Based on the comparative study conducted, it is suggested that official recognition is given to bitcoin as either a property or foreign currency and that the Income Tax Act of Mauritius is amended to recognise either property tax or tax on the capital gain of bitcoin transactions. The research has also recommended the establishment of a proper identity verification process when it comes to bitcoin users given the anonymity of bitcoin transactions. Additionally, it is highly suggested that the MRA issues guidelines on the tax regulation of bitcoin transactions to ensure clarity and transparency. In this respect, while the government may enjoy more tax revenue through correct reporting mechanisms, taxpayers are likely to benefit from the advantages that bitcoin offers.

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