# Developing an Effective Regulatory Framework for Virtual Currencies in Mauritius

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It is widely accepted that virtual currencies have the potential of revolutionising the global finance sector. The potential of bitcoin has been recognised by corporate organisations and governments. With the continuing growth of bitcoin as a cryptocurrency, its regulatory regime has become crucial in determining the fate of this novel system of exchange. The global economic crisis and pandemic situation of 2020 is turning industries towards adoption of digital and virtual currencies. Although bitcoins have been regarded as the pioneer of decentralized peer to peer virtual currencies, there remains uncertainties in various countries as to whether they should embrace, devise new regulations or completely outlaw the digital currency. It has been recognised that Mauritius has the potential of acting as a Financial Technology (Fintech) hub for the African and surrounding regions through the rapid development and adoption of technology. For this to become possible, the current regulatory framework of Mauritius must be updated to reflect the continuing innovating changes in this area.

So far, Mauritius has not yet implemented any specific regulations to address the use of Blockchain, bitcoins and cryptocurrencies in its jurisdiction. The only related legal framework currently being used in this area is the Regulatory Sandbox Licensing Scheme implemented by the Board of Investment Mauritius ("BOI"). It offers the possibility for investors to conduct their businesses in an area where there exists no legal framework or inadequate provisions under existing Mauritian legislation.

In this research paper, the different regulatory frameworks of United States, Canada and China will be assessed to serve as a comparative analysis to examine the nature of their regulatory regimes. These jurisdictions have been chosen as they have been in the forefront of bringing significant regulatory changes, which has not been the case in any countries in Africa or Indian Ocean. These will be used to address the question as to whether there are any existing legal frameworks from other jurisdictions that can be customised or adapted for incorporation into the jurisdiction of Mauritius.

#### **ACM Reference Format:**

#### 1 INTRODUCTION

Bitcoin, which uses a set of concepts and technologies, forms the basis of a digital money ecosystem allowing it to be entirely virtual and digital, resulting in a substantial paradigm shift to traditional currencies[21]. Bitcoin operates through the transmission of currency units that are used to store and transmit value between various parties in the bitcoin network[18]. Bitcoin can be used, as a payment system in lieu of conventional currencies, to perform a number of transactions[1]. This has grown to be very popular in the recent years both as a payment vehicle and a speculative asset. It is claimed that the bitcoin network has the potential of entering into a competitive market with the central banking systems of various countries due to its ability of providing cross border payment options[22]. The objective of this research rests on the need to examine the current existing regulatory regimes across some leading economies, as it has evolved to be the most popular

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XXXX-XXXX/2020/10-ART \$15.00 https://doi.org/10.1145/nnnnnnnnnnnnnn type of virtual currency. The findings of this research will on the other hand be used to monitor the use of other virtual currencies.

As bitcoin is a new technology, there are very few laws around the globe that actually specifically deal with virtual currencies including bitcoin [28]. The regulation of bitcoin poses difficulty as it is a decentralised virtual currency that has no identifiable issuing body and there is no central authority which is in charge or in control of this new payment system[9]. However, it is accepted that bitcoin has some practices that needs to be regulated such as eliminating the anonymity aspect of bitcoin, clarification of the related taxation implications and even considering putting a limit on the maximum amounts of bitcoin that can be used in a single transaction together with regulating platforms that exchange bitcoin against official currencies. In addition, bitcoin is a "currency" which has the characteristics of having no physical place of existence, possessing an ability to transcend national borders and its encryption providing anonymity to users[25]. This characteristic of anonymity has been related to facilitate various types of crimes worldwide such as attacks on businesses, exploitation of children on the net, sexual exploitation, drug dealings, financial frauds and Ponzi schemes[13]. Regulations relating to bitcoin can be classified into two main categories: Firstly, the law protecting legitimate bitcoin users such as investors and consumers; Secondly, law that attempts to protect the society from illegal or illegitimate bitcoin users such as criminals, terrorists and drug dealers. In order to promote the wider adoption of bitcoin, it is proposed that the regulation should treat it solely as a currency to induce confidence amongst its users, further, legislators should address the issue of the anonymous nature of bitcoin so that the related negative associations and connotations are eliminated[26].

Looking at Mauritius, it is still at the early stages of attempting to regulate the use of bitcoin and virtual currencies. The fact that there are various problems which have already been flagged up relating to the use of bitcoin on the island, implementing an appropriate regulatory framework has become urgent and essential. For instance, Mr. Navin Beekarry, Director-General of the Independent Commission Against Corruption ("ICAC"), in a 2017 conference for Law Practitioners and Legal Officers, explained the difficulties encountered in prosecuting criminal offences involving the use of bitcoins. A number of cases were referred to demonstrate the illegal use of bitcoins: use of malicious software for attacking computer systems whereby payment of the ransom was demanded in bitcoins; revelation of bitcoin wallet on the mobile phones of drug traffickers used to perform illegal transactions that left no visible trail.

As there are no specific regulations dealing with the use of bitcoin in Mauritius, the Mauritian enforcement authorities have attempted to deal with the type of cases mentioned above under the existing Mauritian legislations such as the Anti-Money Laundering Act 2002, and Prevention of Terrorism Act 2002. It should also be noted that there are various regulatory and investigatory bodies such as Mauritius Police Force, ICAC, the Financial Services Commission ("FSC") and Bank of Mauritius ("BOM") who have the power of investigating and prosecuting criminal and money laundering offences involving cryptocurrencies and bitcoins. However, this is of course very difficult due to the lack of an appropriate regulatory framework in this area.

The following research questions will be instrumental in developing the research:-

- (1) An investigation into the operation of virtual currencies (more specifically bitcoin), its popularity and problems associated with its use.
- (2) An examination of the current international endeavours to regulate the use of bitcoin, more pertinently by the United States, Canada and China.
- (3) Measuring the regulatory performance and the process of benchmarking.
- (4) An examination of the current framework in Mauritius and the reluctance to legitimise bitcoins.

(5) An examination of the best practice framework with the objective of a similar implementation in Mauritius.

The paper is divided as followed. Section 2 provides the background to regulatory frameworks and Bitcoin. Section 3 discussed the methodology applied for assessing frameworks. Section 4 elaborates on the regulatory frameworks applied in United States, Canada and China. Section 5 discusses the current framework in Mauritius. Section 6 analyses the frameworks, whilst Section 7 looks forward with recommendations and Section 8 concludes the paper.

#### 2 BACKGROUND

Bitcoin is the world's first private digital cryptocurrency that uses a peer to peer network over the internet for its exchange[17]. The dangers associated with the use of bitcoins include the facilitation of black market transactions, money laundering, terrorist financing and tax evasion[12]. In various jurisdictions around the world, bitcoins may not fit well within the paradigm of their existing laws[6].

It is argued that whilst the regulatory framework of bitcoins must not prevent this cryptocurrency from achieving its full positive potential, it should prevent its use as a vehicle for criminal activity[14]. This can be achieved by addressing the issue of anonymity of bitcoin without disrupting its decentralised nature[14]. As bitcoin does not have any central issuer, its regulation will not fit under the jurisdiction of only one governmental agency[15]. Instead, the different aspects of bitcoin must be separately regulated by differential agencies in order to form a complete regulatory framework[15].

The lack of an appropriate regulatory regime is a major factor which is holding back the bitcoin ecosystem. On one hand, it is recognised by the stakeholders doing business in this area that there is a need for regulation so that this new form of currency fits into financial rules with banks being involved in the process. On the other hand, it is argued that governments should not pass any laws or regulations limiting the use of bitcoins[10]. There is little consensus around the world on how bitcoins should be regulated with some countries focussing on money laundering and others on consumer protection. The main problem that arises with the regulation of virtual currencies such as bitcoin is that they are regarded both as a method of payment and an investment property.

### 3 METHODOLOGY

Before proceeding further, it is important to look at the research methodologies and research strategy which will be adopted to answer the research questions posed.

# 3.1 "Black-Letter Law" Methodology

The approach of "Black-Letter Law" or doctrinal methodology relies on the examination of caselaw and statutes to explain the law[5]. This can be defined as a detailed examination and systematic exposition of the context of a legal doctrine. This research methodology will be used to examine the current regulatory framework of Mauritius focusing on governing legislations such as the Banking Act 2004 ("BA-2004") and the Mauritius Securities Act 2005 ("MSA-2005") as well as the legislations and caselaw of other jurisdictions regulating the use of virtual currencies.

# 3.2 Comparative Methodology

This approach extends the study of national law to analyse the legal frameworks of overseas jurisdictions. The benefit of using this methodology is that it offers suggestions for future developments, provides warnings of possible difficulties with opportunities of critical assessments. This

methodology will be used to analyse the current regulatory framework of Mauritius which will be compared with other jurisdictions such as Canada, China and the United States.

# 3.3 Critical Analysis

The above methodologies will be used to critically analyse the legal framework of Mauritius and other jurisdictions by interpreting the meanings and implications of the rules and principles identified. This will be used to propose an appropriate regulatory framework for implementation in Mauritius.

#### 4 REGULATORY FRAMEWORKS

To propose the best regulatory framework to be implemented in Mauritius, it is important to examine the current international endeavours that seek to regulate the use of bitcoins and virtual currencies. We will be focusing on the jurisdictions of United States, Canada and China.

#### 4.1 Mauritius

To drive innovation on the island, Mauritius has very recently started to aim at branding itself as a "regional haven" for blockchain innovation which it considers to be one of the technologies providing a wide window of opportunities in the region of Africa and elsewhere. Blockchain is relevant to this research paper as it is seen as the main technological innovation of bitcoin, acting as a public ledger for all its transactions[24].

The government of Mauritius, in its wider effort of making the island a hub for blockchain start-ups, has provided various of incentives to encourage blockchain innovators who are seeking to branch out in Africa, Asia and worldwide. One of these incentives is the recent implementation of the Regulatory Sandbox License ("RSL") by the BOI.

There have been varied responses by Mauritian institutions and authorities towards the use of cryptocurrencies and bitcoin on the island. On one hand, the BOM, following the central banks of France and China, have warned the public against the use of virtual currencies, more specifically bitcoins. In their communique, the BOM has emphasised that there are no regulations that protect consumers who use virtual currencies as a payment or investment tool. On the other hand, the approach of the SBM towards the use of cryptocurrencies and blockchain technology has been very different to that of the BOM. In 2017, the SBM announced its intention to partner with the Fintech firm Secured Automated Lending Technology (SALT) which has a lending platform allowing for cryptocurrencies such as Bitcoin and Ethereum to be used as collaterals for loans. This will permit blockchain assets to be used as collaterals for securing loans with the SBM.

This step is in line with the country's aim of becoming an "Ethereum Island" of offering a "breeding ground" for blockchain companies. The "Ethereum Island" will act as a platform for blockchain innovators in the development of their ideas to serve as a gateway to African and Asian markets. Mauritius is aiming to become a "serious player" in the blockchain technology field. For this to become possible, it is important that Mauritius offers an appropriate framework that regulates blockchain technology, cryptocurrencies and bitcoins, making the topic of this research paper very relevant.

It is recognised that there is currently no (or very scarce) legislations that regulate the use of cryptocurrencies including bitcoins in Mauritius. There is a necessity for financial authorities such the FSC and the BOI to issue specific fintech regulations in this area. These regulations will be crucial in providing greater safeguards for cryptocurrency and blockchain users, addressing the associated issues of hiding assets, taxation and anti-money laundering. The ICAC have concerns over the dangers associated with the use of cryptocurrencies and bitcoin in Mauritius such as increase in criminality and drug dealing. Cryptocurrencies will not fall under the existing law of

Mauritius – for instance, they would not fall under the definition of "securities" under the Mauritius Securities Act 2005 ("MSA-2005"). As interest in virtual currencies continue to grow, an unregulated environment to this new form of fundraising might deter stakeholders from investing in Mauritius. The absence of an appropriate legal framework is a major obstacle amongst foreign investors who are willing to explore the country's potential in the field of blockchain technology. However, the willingness of Mauritius to improve its regulatory framework is attracting blockchain technology start-up companies that are interested in entering the African and Asian markets.

The issue that transpires from the articles discussed above is that the current regulatory framework of Mauritius does not cater for the use of cryptocurrencies and bitcoin. For instance, there are investors who wish to set up investment funds in our island that deal with cryptocurrencies such as bitcoin and our laws and regulations must be updated to cater for this[4]. To respond and address this need, the Government recently announced the setting up of a Regulatory Committee, the Regulatory Committee on Fintech and Innovation-driven Financial Services, ("the Committee") which has the objective of "paving the way for appropriate regulatory frameworks for encouraging and supporting the development of Fintech in Mauritius." [8]

# 4.2 United States

In 2013, The U.S. Department of the Treasury Financial Crimes Enforcement Network ("Fin-CEN") issued guidance under the Bank Secrecy Act ("BSA") on compliance obligations of virtual currencies[19]. The guidance also clarifies when a virtual currency user may be engaged in "money transmission" triggering the need for compliance with the requirements of filing and maintaining reports and registration with FinCEN[19]. "Money transmission" is in turn defined as "the acceptance of currency, funds, or other value that substitutes for currency from one person and the transmission of currency, funds, or other value that substitutes for currency to another location or person by any means." The guidance also makes distinction between "real" and "virtual" currencies in so far as the former has legal tender and virtual currencies which can be used as substitutes for real currency referred as "convertible virtual currency". FinCEN is not explicit on the issue of whether virtual currencies such as bitcoin will be classified as convertible virtual currencies but presumably they will be as they can be exchanged for real currencies.

The FinCEN Guidance categorised those involved with virtual currencies and bitcoins into "users", "exchangers" and "administrators". A "user", which is not subject to FinCEN regulations, is defined as a person which creates units for purchasing real and virtual goods and services. On the other hand, an "exchanger" who creates bitcoins and sells them for real currency or transmits the same in return for funds or other value must comply with FinCEN's regulations to be registered as a "Money Services Business" (MSB). An "Administrator" is defined as a person engaged in the business of issuing virtual currencies who must also register as a MSB. However, the last category is not applicable as bitcoin does not have any central issuing authority[20].

There have been different approaches by different US institutions towards the definition that should be adopted for bitcoins. For instance, the US Internal Revenue Services ("IRS") issued a Notice in 2014 where it declared bitcoins as "property" which is taxable like any other property. This definition of bitcoin is in contradiction with that of the District Court of Eastern District of Texas where it is defined as a "currency". On the other hand, in September 2015, the U.S. Commodity Futures Trading Commission (CFTC) found that bitcoin and other virtual currencies falls under the definition of "commodity" under the Commodity Exchange Act [2].

Apart from the above mentioned nationwide regulatory regimes, US states have also regulated the use of bitcoins focusing mainly on businesses operating as bitcoin investment firms and currency exchanges [7]. New York became the first American state to regulate bitcoins with the introduction of the BitLicense in June 2015 [23]. Under this regulation, any firm engaged in any "virtual currency

Business Activity" in the state of New York must apply to the New York State Department of Financial Services (DFS) for a BitLicense [3].

Comprehensive guidance is provided to businesses applying for the BitLicense ranging from capital requirements to anti-money laundering. Most states have followed the regulatory scheme (the BitLicense Program) implemented by New York which imposes minimum holding requirements on exchanges acting as transfer agents and impose money laundering regulations.

The FinCEN Guidance emphasises the difference between "real currency" and "virtual currency". Real currency, which has legal tender, is defined as the coin and paper money of the United States or another country whereas virtual currencies do not have legal tender. FinCEN Guidance further define "convertible virtual currencies" as currencies which can be used as "substitutes" for real currency. It is clear here that FinCEN does not treat virtual currencies in the same manner as real currencies. It can be noted here that FinCEN have not been clear on the issues of whether virtual currencies such as bitcoins are classified as convertible virtual currencies. It could be deduced, however, that as bitcoins can be exchanged for real currency, the would fall under the category of "convertible virtual currencies". FinCEN further defines "money transmission" as "the acceptance of currency, funds, or other value that substitutes for currency from one person and the transmission of currency, funds, or other value that substitutes for currency to another location or person by any means." Whether an individual or company dealing in bitcoins will fall under the category of a "money transmitter" will depend on the facts of each case. The FinCEN Guidance divides participants into "users", "exchangers" and "administrators". "Users" who are persons using virtual currencies to purchase real or virtual goods or services are not classified as MSBs. "Exchangers" work as a business to exchange virtual currencies real currencies and "Administrators" are engaged in the business of issuing and redeeming virtual currencies. "Exchangers" and "Administrators" are classified as MSBs if they accept, transmit, sell or purchase convertible virtual currencies.

In the bitcoin system, a miner who uses bitcoins to purchase real or virtual goods would be classified as a "user" and not be subject to the reporting and compliance requirements of FinCEN. On the other hand, a miner who sells bitcoins to another person in exchange for real currency or its equivalent is classified as a "money transmitter". It must be noted here that the wordings "engaged as a business" used in the guidance has not been defined by FinCEN. This may create uncertainty as to exactly when the MSB Rule will apply. It must also be emphasised that the FinCEN Guidance does not make specific reference to bitcoins.

The guidance has attracted criticisms from the bitcoin community. For instance, Bitcoin Foundation are of the view that it would be infeasible for most members of the bitcoin community to comply with the guidance. It is also claimed that the new rules will impose strict compliance conditions on companies resulting in significant compliance costs. The cost of obtaining FinCEN's money transmitter licence is estimated at approximately USD 7 million. The negative effect of this guidance is that Bitcoin exchangers have been encouraged to outsource their business to other countries that offer more favourable legal environments.

It has been suggested that, to encourage the return of bitcoin exchanges to the United States, FinCEN should rescind its MSB licence and recognise bitcoin as a "community currency". The later can be defined as a means by which members of a specific group create their own money which can be used to purchase goods or services within the group. Classifying bitcoin as a "community currency" appeals to the core of the currency with all stakeholders such as miners and users being part of the bitcoin community.

# 4.3 China

In December 2013, an official statement was released by the People's Bank of China and associated ministries which prohibited banks and payment companies from accepting bitcoins but stressed that

private citizens were still free to buy and sell them. The Chinese Government also announced that online bitcoin exchanges had the obligation of filing trade records and adopting active measures to minimise the associated money laundering risks.

As any Chinese bank or payment company is prohibited from exchanging Chinese currencies for bitcoins or participating in any bitcoin transactions, the use of bitcoin and development of bitcoin companies is seriously impaired [27]. This move stopped the massive outflow of money from China also resulting in a massive drop on the market price of bitcoins [11]. Before the ban of bitcoin, China had successful bitcoin consumer market with massive investment and mining clients and was considered as the world's largest bitcoin exchange by volume.

China has refused to provide bitcoin with any legal status and has so far also refused to recognise bitcoin as a currency. During 2013, Chinese citizens were circumventing authorities by using digital currencies, more specifically bitcoins, to move money out of the country. There were claims of theft and fraud made by Chinese citizens using bitcoins and concerns about protection of the public rights, protection of the official currency, money laundering and financial stability. The Chinese government responded by warning state-owned banks against dealing with digital currency exchanges. On 5th December 2013, the Central Bank of China together with the Ministry of Industry and Information Technology, the China Banking Regulatory Commission, the China Securities Regulatory Commission and the China Insurance Regulatory Commission jointly issued a warning banning all financial institutions in china from trading in bitcoins and other digital currencies.

The ban extended to payment companies and retail businesses who were forbidden from either processing or accepting any payments in bitcoins. The Chinese government announced that bitcoins should not be used as a currency as they were regarded as a "virtual commodity". This culminated in the People's Bank of China blocking dealings in digital currencies which stopped the massive outflow of money from China. The government's decision has been explained from its desire to prevent the country's national currency, Yuan, from being moved abroad through the use of bitcoins. The effect of the ban was a sudden drop in the market price of bitcoins. The ban has also shown that China cannot stop the use of bitcoins and this is because of its decentralised nature. This has resulted in China being isolated from the whole word with the majority of bitcoin trading being moved from China to Japan and South Korea.

China's approach to banning bitcoins has been highly criticised. It is argued that China is lagging behind other countries which are taxing the use of bitcoins without imposing a complete ban. China is also missing the opportunity of developing and controlling this developing area of the law. It has been noted that the regulatory response of China has created a lot of uncertainty in the bitcoin community resulting in an influence on the market value of bitcoins around the world. For instance, in October 2013, bitcoins experienced a large increase in value when Baidu, a large online shopping website in China, announced that it was accepting bitcoins as a method of payment. In December 2013, following the announcement by the Chinese government that it was banning bitcoin payments, there was a large drop in the market value of bitcoins.

The government's strict regulatory controls has created tension between China's Central Bank and the country's top five financial institutions which allowed transactions in bitcoins despite the ban. These banks were given a deadline by the Central Bank of China for informing their clients of the regulatory prohibitions imposed by the government.

It must be noted that although Chinese financial institutions are forbidden from dealing in bitcoins, the Chinese government has not prohibited individual citizens from owing bitcoins. Not surprisingly, these two conflicting positions of the Chinese government, in its approach towards bitcoins, has caused a lot of confusion and frustration in the bitcoin community.

Turpin suggests that China's entire ban on the use of bitcoins is the wrong approach which has been adopted for three reasons: Firstly, most of the countries around the world have not imposed a complete ban on bitcoins. Secondly, the regulation of bitcoins can derive significant economic benefits for the country's financial market and its consumers. Thirdly, most governments including China do not have the required capabilities to shut down the entire bitcoin network.

It has been suggested that the Chinese government should have delayed clarifying bitcoin's legal role in its jurisdiction until the technical and market foundations had been fully developed. Instead of imposing a full ban on the use of bitcoins, China should have researched ways for its regulation to protect consumers and prevent money laundering. Implementing a regulatory framework could have assisted the Chinese government to regulate and control the use of bitcoins, without the need to complete bank virtual currencies. In the event that new laws could not be devised by China, it could have looked into adapting existing legal frameworks to accommodate virtual currencies including bitcoins.

#### 4.4 Canada

Canada has adopted a "soft" approach towards the regulation of bitcoin as it has not imposed any rules treating bitcoin differently with any other currency [16]. The fact that bitcoin exchanges and online vendors have not been subject to regulation shows Canada's reluctance to legislate in this area. In January 2014, the Canadian government issued a statement clarifying that only Canadian bank notes and coins were recognised as legal, not bitcoins. Due to a loophole in Canadian regulatory framework, bitcoins falls outside the scope of the Financial Transactions and Reports Analysis Centre of Canada ("FINTRAC"). This is because, under the Proceeds of Crime (Money Laundering) and Terrorist Financing Act, money is defined as "currency of a country" and bitcoin does not belong to any country. Consequently, Canadian bitcoin exchanges are not required to register as a money service business with FINTRAC.

In Canada, cryptocurrencies including bitcoins are not considered to be "legal tender" and the only official currency in the country is the Canadian dollar. "Legal tender" is defined under Section 8(1) of the Canadian Currency Act as being bank notes issued by the Bank of Canada and coins issued under the Royal Canadian Mint Act. It must be noted that a consumer can still use virtual currencies and bitcoins as a method of payment even if they are not considered to be "legal tender". Canada's approach of not treating digital currencies as "legal tender" is seen as a sensible approach as it does not treat them in the same way as traditional forms of currencies. The Financial Consumer Agency of Canada have also warned consumers that digital currencies including bitcoins are not supported or overseen by any governmental authorities, financial institutions or banks.

Subsequently, in June 2014, Canada became one of the first countries in the world to implement legislation regulating digital currencies. Canada implemented the world's first national digital currency law by amending its Proceeds of Crime (Money Laundering) and Terrorist Financing Act ("PCMLTFA") through Bill C-31 , which received royal assent on 19th June 2014. Under the amended law, entities dealing in virtual currencies including bitcoins are treated as MSBs triggering the requirement of registration and compliance with FINTRAC.

This means that any entity "dealing in virtual currencies" must comply with the registration, reporting and compliance requirements of a money service business under the PCMLTFA. These businesses will need to abide by FINTRAC's requirement of implementing appropriate anti-money laundering programs. In doing so, MSBs will need to report any suspicious or terrorist related transactions and determine if any of their customers are "politically exposed persons". The purpose of the amendment was to enhance the client identification, record keeping and registration requirements for bitcoin money exchanges. Further, the new law also prevents banks from opening and maintaining accounts of MSBs dealing with digital currencies unless they are registered with FINTRAC.

MSBs dealing in virtual currencies must therefore register with FINTRAC that deals with the detection, prevention and deterrence of money laundering and terrorist financing activities. The new law will also apply to virtual currency exchanges which operate outside Canada but direct services at companies or persons in Canada. The Bill C-31 also prohibits banks from opening and maintaining accounts for digital currency MSBs that have not been registered with FINTRAC. This amendment brought clarity in Canada's law on virtual currencies and has even been referred as the "most transparent" country that have addressed this issue.

It must be noted that the term "dealing in virtual currencies" has not been defined within the Act. Furthermore, the amendment only refers to businesses "dealing in virtual currencies" and does not specifically mention bitcoins which has cast uncertainties in the Canadian bitcoin community. Canada's approach of regulating companies trading in bitcoins as MSBs is similar to the approach taken by the United States which has been explained previously.

One of the concerns associated with the use of bitcoins, is tax evasion. It must be noted that the use of virtual currencies does not exempt consumers from complying with the Canadian tax obligations. The CRA, the authority which administers tax law for the Canadian Government, treats bitcoins as "commodity" when they are exchanged for Canadian currency. Individuals purchasing bitcoins, which appreciates in value before they are sold, the transaction is taxed according to capital gains tax rules. A person engaged in the business of sale and purchase of bitcoins would be taxed on any gains as ordinary tax. This means the income generated from the sale and purchase of bitcoin is taxable. Under Canadian tax law, bitcoin users must report the fair market value of bitcoin but no guidance is given on how this market value should be determined or calculated.

The Canadian Securities Administrators ("CSA") issued guidance in a Notice that provided clarification on the regulation of Initial Coin Offerings (ICOs). It explains how the CSA Regulatory Sandbox can assist fintech businesses in dealing with ICOs. The CSA Regulatory Sandbox is an initiative by the CSA that supports fintech companies offering innovative products, services and applications. This scheme, which is a fast and flexible medium, allows companies to register or obtain relief from certain securities laws requirements so they can test their products and services in the Canadian market. These fintech start-up companies obtain exemption from registering under Canadian security laws. It is interesting to note here that this scheme is similar to the RSL Scheme which has been implemented by the BOI.

#### 5 THE CURRENT LEGAL FRAMEWORK OF MAURITIUS

The Mauritian Government is particularly interested in bitcoins and the blockchain technology which they are looking to use as catalysts for driving innovation on the island and attracting foreign investors. It is believed that these technologies are crucial for taking the economy of Mauritius to another level. Mauritius aims to become a "Blockchain Hub" in the African region. The goal of the Mauritian Government is to position Mauritius as an ideal platform in the FinTech industry in the African region. In the budget speech delivered by Hon. Pravind Kumar Jugnauth, the Prime Minister and Minister of Finance and Economic Development on the 8th June 2017, he stated that "Mauritius must harness the benefits of the fintech revolution the more so that there is good potential for making of Mauritius a Fintech Hub for Africa."

Mauritius already has well-established financial services and information and communications technology industries which are attracting investors and blockchain start-ups. Blockchain start-ups in Mauritius are of the view that the risks associated with the trade of cryptocurrencies and bitcoins is a risky business which can be mitigated by the implementation of a regulatory framework. Legal professionals in Mauritius also believe that it is important to assess the legal framework that exists or will exist for the regulation of this new and innovative industry. For instance, there are investors who are willing to set up investment funds in Mauritius with virtual currencies such as Bitcoin

and Ethereum which necessitates an update of the existing laws and regulations in this area. It is argued that the introduction of a regulatory framework which is clear and easy to understand will attract blockchain innovators to the country. It is therefore essential that Mauritius enacts the appropriate regulations to address the concerns associated with the use of cryptocurrencies and bitcoins such as criminal activities, tax evasion and money laundering.

As already mentioned, Mauritius is aiming to become an "Ethereum Island" as a hub for various blockchain startups. This is a collaborative partnership between the Mauritian Government and other blockchain solutions providers allowing the island to become a blockchain technology hub for innovators from the African and Asian nations. Ethereum is essentially a platform that helps in the creation of applications operating on blockchain. it is believed that smaller jurisdictions like Mauritius have a strong "top-down drive from the government" to provide a more homogeneous environment for taking advantage of blockchain technology as compared to larger jurisdictions.

It is essential to understand the difference between cryptocurrencies like bitcoin and the blockchain technology. There remains an underlying confusion between the technical understanding of these terms leading to the belief that bitcoin is the same as blockchain. Bitcoin can be regarded as the digital currency and blockchain is the underlying technology behind bitcoin. Blockchain can be understood as a disseminated database of records which document transactions which have been executed prior to the point which is shared amongst participating members. The aim of the Mauritian Government to make the country a "blockchain hub" therefore encompasses virtual currencies and bitcoins.

Mauritius has not yet implemented any specific laws or legislations regulating the use of virtual currencies including bitcoins as means of payment by consumers or for investment purposes. It is therefore important to look at the various warnings, guidance and press releases issued by different organisations and authorities in Mauritius to assess the legality of bitcoins.

### 6 ANALYSIS

The introduction of bitcoin regulation in Mauritius will not only determine its status but will also define the regulatory framework and marketplace of other virtual currencies presented in other countries. To choose the best practice framework for implementation in Mauritius, it is important to critically assess the jurisdictions analysed.

China's refusal to give bitcoins any legal status or recognise it as a currency is not an approach which is feasible to be adopted in Mauritius. As mentioned, Mauritius is aiming to become a blockchain hub. The government is providing many incentives, such as the RSL to attract investors on the island. Banning virtual currencies and bitcoins in Mauritius, apart from not being in line with the objectives of the government, will also force existing blockchain start-ups and investors to relocate to other jurisdictions. This approach will prevent the MRA from taxing bitcoin transactions and miss the opportunity of deriving significant benefits. A complete ban on the use of virtual currencies is unnecessary. For these reasons, the regulatory framework of China has been dismissed. It is instead suggested that a regulatory framework is proposed which controls and addresses the risks associated with the use of bitcoins in Mauritius.

The regulatory framework of the United States is interesting to assess as there are numerous articles on the subject. MSBs require a licence to operate under the BSA. FinCEN issued guidance defining convertible virtual currencies as substitutes for real currency. This definition makes businesses dealing in convertible virtual currencies subject to the licence requirements under the BSA. For tax purposes, the US tax authority have ruled that virtual currencies are taxed in the same manner as traditional property. This means that the same tax liability will apply to virtual currencies and bitcoins under the country's existing barter rules.

The jurisdiction which has been identified as having the best practice framework in relation to the regulation of virtual currencies which will be considered for adoption as a benchmark in Mauritius is Canada. Canada's law on virtual currencies is very clear. Canada has even been described as the "most transparent" country which has regulated virtual currencies. As mentioned, Canada is the first country to have implemented specific legislation on virtual currencies including bitcoins. Bill C-31 amended Canada's PCMLTFA to classify entities dealing in virtual currencies as MSBs". This amendment triggers MSBs to comply with the registration and reporting requirements of Canada's financial authority, FINTRAC.

The taxation laws regulating the use of virtual currencies and bitcoins are also very clear in Canada. When virtual currencies are exchanged for real currencies, they are taxed as a "commodity". Any purchase made in virtual currency including bitcoins are subject to Canadian capital gains tax rules. Any sale and purchases are taxed as ordinary gains. Furthermore, ICOs are regulated through the RSL scheme which is similar to the FSC scheme currently in place in Mauritius

#### 7 RECOMMENDATIONS

The section will address the proposals for a legal framework regulating the use of virtual currencies and bitcoins based on the best practice framework (Canada) identified previously. The proposals are as follows:-

- (1) Entities dealing in virtual currencies and bitcoins, that is the conversion of virtual currency to real currency, trading and transfer of virtual currencies are classified as "financial institutions" making them subject to the existing registration and reporting requirements of the FIU.
- (2) Amending the definition of "Securities" to include ICOs making them subject to the registration and reporting requirements of the FSC.
- (3) Using the same approach adopted by Canada of introducing a Parliamentary Bill to amend existing laws in Mauritius.
- (4) Virtual currencies to be taxed as a "commodity" when they are exchanged for real currencies and as "capital gains" for purchases. Any sale and purchases to be taxed under ordinary taxation rules.

The first proposal replicates the approach adopted by Canada in regulating money exchangers that convert and transfer virtual currencies including bitcoins into real currency. The wording "financial institutions" is suggested in lieu of MSBs adopted in Canada due to the existing definition of "financial institutions" under the Mauritian BA-2004. Classifying entities dealing in virtual currencies under "financial institutions" will trigger FIU's existing registration and reporting requirements combatting money laundering. It must be noted here that the regulation only affects money exchangers and not individuals who use virtual currencies and bitcoins as a mere method of payment. The second proposal suggests incorporating the ICOs under the umbrella of existing securities laws in Mauritius. This is to address the uncertainty as to whether ICOs fall under the definition of "securities". The resulting emerging implications of this amendment will lead to the FSC overseeing the registration and reporting of ICOs.

The third proposal adopts the approach of Canada of introducing a Parliament Bill to amend existing regulations. This method is preferred as opposed to guidance being released by the FSC and FIU to address the associated problems.

The fourth proposal addresses the concerns analysed on the use of virtual currencies for tax evasion purposes. The suggested tax framework divides bitcoin transactions into exchanges, capital gains purchases and normal sale as well as purchase transactions. This approach again has been replicated from Canada's regulatory framework.

# 7.1 Implementation

This section looks at how the proposals mentioned above will be practically implemented into the legal system of Mauritius.

- 7.1.1 Amending the Banking Act 2004. The first implementation method is through a Parliamentary Bill amending the provisions of the BA-2004. It is proposed that the definition of "Cash Dealer" is amended to include the wordings "dealing in virtual currencies as defined in the regulations". Regulations can be enacted to define the exact meaning of the term "dealing in virtual currencies" which can include conversion of virtual currencies to real currency, trading and transfer of virtual currencies. The use of regulations here reflects the approach of the Canada amending legislation, Bill C-31. This method of implementation considers the rapid evolving nature of virtual currencies. The use of regulations to define "dealing in virtual currencies" will allow for easier amendment should the need arise in the future. The proposed amendment of the definition of "Cash Dealer" avoids amendment of FIAMLA as this legislation uses the same meaning of the term under the BA-2004.
- 7.1.2 Amending the Securities Act 2005 . This proposed amendment is based on Canada's approach of treating ICO tokens as securities. It is suggested that the definition of "securities" under Section 2, MSA-2005 is amended, through a Parliamentary Bill, to include "Cryptocurrency tokens which derive their value from an external, tradable asset". It must be noted that the proposed definition captures only security tokens used as an investment vehicle. Utility and Payment Tokens have been excluded from this definition. Adding this definition under the MSA-2005 will allow the FSC to impose registration and reporting conditions on ICO entities dealing with securities tokens. This will address the concern of ICO tokens being used as investment scams. It must also be emphasised that the suggested main amendment is through a Parliamentary Bill and not through FSC guidance.

It is further suggested that the FSC can thereafter issue guidance clarifying the difference between payment, utility and security tokens. The guidance can specify exactly which category of tokens will fall under the licensing and registration requirements of the FSC. The guidance can also encourage ICOs start-ups to liaise with the FSC at the outset in case there are doubts on how the tokens issued will be classified. Again, this method of implementation allows for flexibility as the technology behind ICOs is rapidly evolving.

7.1.3 Amending the Income Tax Act 1995. This recommendation adopts the approach of Canada which treats virtual currencies as "commodity" for taxation purposes. It is suggested that Section 2 of the Income Tax Act 1995 is amended to define virtual currencies as "commodities". This will make virtual currencies subject to the Mauritian taxation rules. It is further suggested that the MRA should thereafter issue guidance clarifying in what situations and how income/ capitals gains derived from the use of virtual currencies will be taxable. The guidance should clearly state that virtual currencies are subject to the Income Tax Act 1995. It should specify that buying and selling of goods and services using virtual currencies will be taxable as the seller's income. If virtual currencies are bought or sold of as a "commodity", the resulting capital gains or losses should be reported to the MRA.

# 8 CONCLUSION

This paper has looked at the emerging popularity and uses of virtual currencies focussing on bitcoins. The concerns associated with the use of bitcoins such as money laundering, tax evasion and illicit activities have been analysed in depth. The need to implement appropriate legislations has been identified by various stakeholders. Having critically analysed various jurisdictions, the best practice framework of Canada has been used as a benchmark to make proposals for implementation

in Mauritius. The proposals put forward in this paper includes the amendment of the law through classification of entities that deal with virtual currencies as "financial institutions" which will bring them under the umbrella of the FIU and hence making them subject to registration and reporting requirements. This measure will assist in combatting any money laundering issues, which is a recurrent problem affecting various stakeholders in Mauritius. This will be further strengthened by incorporating ICOs under the definition of "securities" which will result in the FSC overseeing the registration and reporting aspects. Furthermore, the introduction of a parliamentary bill is the preferred solution to address the aforesaid problems that have been highlighted in this paper. The final proposal revolves around the use of virtual currencies for tax evasion purposes. The amendments proposed to the Mauritian Banking Act 2004, Securities Act 2005 and Income Tax Act 1995 will support Mauritius in its aim of becoming a "blockchain hub" in the African region. For this to become possible, an efficient legal framework regulating the use of virtual currencies and bitcoin is crucial.

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