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Legalization of Cryptocurrency in Pakistan and its Impact to Economic Prosperity in Pakistan

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Abstract
The idea of Cryptocurrency comes where financial emancipation meets technological revolution. This virtual asset provides a decentralized financial freedom landscape sans disturbing the operationalization of conventional financial system. Its transparency gives people complete control over their financial lives by facilitating safe, expeditious, and affordable transactions anywhere in the world. Its decentralized structure lacks a central bank or middlemen, encourages financial inclusion, autonomy, and innovation while establishing a new standard for international financial transactions to boost the commercial freedom and economic expansion resultant to have potential to boost the economic prosperity in countries like Pakistan. However, it has regulatory issues and market volatility that need to be addressed thoroughly. The consideration to legalize and regularize is coupled with challenges and a concern of danger associated with cyber-security risks. This consideration can be lessened with the right laws and precautions for the sake of economic prosperity in Pakistan. This research is culminated into four sections; the first one provides the conceptual framework of digital currency and its impact on the macro-economic stability; the second one provides the account of international regime on its regulation and the third one provides a hypothetical account of its impact realization on economic stability coupled with realization of risks for Pakistan. The last section resorts to conclusion that supports the argumentation of its legalization in Pakistan to ameliorate the economic stability and emancipation.

Keywords: Cryptocurrency, economic emancipation, challenges and opportunities, financial technology, decentralized finance, economic development

1. Introduction

Cryptocurrency is a digital or virtual currency that employs advanced encryption for security and is decentralized, which means it is not controlled by any government or financial institution. It is based on blockchain, a decentralized technology that records transactions over a network of computers, ensuring security, transparency, and provides fraud resistance. Cryptocurrencies are created through a process known as mining, which involves powerful computers solving complicated mathematical problems to validate and record transactions. They can be used to buy products and services, converted into other currencies, or saved as an investment. Popular cryptocurrencies include Bitcoin, Ethereum, and Litecoin (Shine, 2024). The Financial Action Task Force (FATF) provides the view on cryptocurrency as; *"Digital representations of value that are digitally traded and use cryptography for security, and can be used for payment or investment purposes."* The recent report of FATF titled as “Targeted Update on Implementation of the FATF Standards on Virtual Assets and Virtual Asset Service Providers, 2023” provides further guidance to the virtual assets. It pertains that virtual asset (VA) or virtual currency represents the digital representation of value that is digitally traded and use a cryptography for security breach (Financial Action Task Force (FATF), 2023). The comprehension pertinent to VA provided by FATF provides help to most of the governments and financial institutions in order to comprehend and regulate the use of cryptocurrency.

The potential of cryptocurrencies encompasses economic stability and dispensation. However, the potential disrupts in the absence of clear norms and guidelines pertinent to business settings, investors, and lawmakers. In Pakistan, cryptocurrencies persist to be mostly unregulated and unadopted contradistinction to the possible benefits they hold. The consideration of the legislatures remains shortsighted and oblivion to the effects these technologies may have on the country’s financial system, society, and economy. Recently, Pakistan has experienced a number of economic challenges, including a significant trade deficit, currency devaluation, and a high rate of inflation. The country has been looking for ways to stabilize its economy and encourage economic growth. There are no clear laws or regulations controlling cryptocurrencies in Pakistan, resultantly investors, businesses, and lawmakers remain pessimistic about them. The State Bank of Pakistan (SBP) has further reflected concerns about the risks coupled with cryptocurrencies, despite the fact that the country has not yet adopted a definite stance on their use.

This research aims to contribute to the ongoing debate about the future of cryptocurrency in Pakistan by rendering a comprehensive analysis of its potential benefits and risks, and identifies strategies for harnessing its potential while minimizing its risks. In light of this, it examines the possible advantages and disadvantages of legalizing cryptocurrencies in Pakistan, with a particular emphasis on how doing so will affect the stability of the national economy. The research resorts more to the argumentation of potential benefits to hone the economic stability and provides the qualitative aspect to comprehend the use of cryptocurrencies to support the account of economic dispensation through its regulation for Pakistan.

1.2. Deciphering Digital Currency and Macro-Economic Stability Relation

Cryptocurrencies, based on Distributed Ledger Technology (DLT), have catapulted the attention and imagination of investors, researchers, politicians and the general public alike in contemporary times. It is nuanced as ‘the future of money’ by tech-experts, they promise advantages that partake a secure and completely decentralized payment system. They offer a drastically simplified and stable financial sector, that promise inclusiveness, transparency and democratic economy (Grasselli & Lipton, 2022). The Digitization of the entire globe is nothing shorter than a miracle in contemporary times. While certain technologies have faded throughout time, others are still remained relevant. This relevancy is culminated on its significance in the realm of economic dispensation. Some of the more recent innovative technologies that are poised to cause global disruption include blockchain and bitcoin.

By introducing "bitcoin," the first cryptocurrency based on blockchain and algorithms, in 2008, Satoshi Nakamoto (a pseudonym) aimed to develop a peer-to-peer electronic cash system that would allow online payments to be sent directly from one party to another without going through a financial institution resultantly promising greater economic dispensation than the paper money backed by the central bank (Bilal, 2021). However, the reality pertinent to cryptocurrencies remains more complex and characterized by excessive price volatility for popular currencies like Bitcoin, an uncomfortably high level of centralization in the form of cryptocurrency exchanges (CEXs) and opacity combined with ineffective implementations, particularly in terms of energy usage and environmental concern as it requires a large amount of energy in mining process (Wang et al., 2022). However, the argument pertinent to its environmental concern in this work remains subservient to the economic dispensation for a Pakistan. The appeal of applying the most recent advancements in encryption and computer science to tackle age-old economic problems is too strong to ignore. These innovative digital currencies might be the last resort for the faltering economies of developing countries like Pakistan.

Therefore, innovative uses of DLT are still being proposed in spite of the obvious challenges (Grasselli & Lipton, 2022).

The history of currency development, combined with the demand for extra monetary methods, resulted in the formation of a cryptocurrency that has had a significant impact on the financial world. Cryptographic currency makes products and services more accessible. The world's largest corporations have accepted cryptocurrency as payment. Number of countries have also adopted digital currency like Bitcoin as their official currency i.e. El Salvador (Wang et al., 2022). The number of blockchain users are growing. At the same time, a number of states are incorporating regulatory legislation on virtual currencies (VC) (Lekashvili & Mamaladze, 2019). The VC has the potential of macro-economic stability owing to its decentralized mechanism. They can have a significant impact on monetary, fiscal, and financial stability of a country (Sukomardojo et al., 2023). Cryptocurrency offers financial security and has become more relevant in contemporary times. It is pertinent to be safer because it is backed by cryptography, that makes it hard to counterfeit and can be spent numerous times. The logical reason behind its widespread acceptance encompasses the fact that it is not associated with centralized financial organizations like banks, it avoids a centralized financial system. This, of course, reduces the need for extremely complex regulatory processes, making it accessible to anybody with a computer (Wang et al., 2022).

Bitcoin and other cryptocurrencies have developed to be a major international investment option. The competitiveness of a nation's imports and exports can be impacted by changes in national currency exchange rates, which can be influenced by fluctuations in cryptocurrency prices (Noam, 2019). Owning to their limited supply, cryptocurrencies provide a robust inflation hedge, ensuring that investors' wealth is protected. A fixed supply prevents central banks or governments from printing additional money, which could lead to inflation. One party cannot control the supply of bitcoins since its DLT is decentralized and unchangeable (Lekashvili & Mamaladze, 2019). Cryptocurrencies protect investors' money from depreciation due to their ability to withstand inflation, attractive store of value, and consistent supply schedule. They are a popular option for those seeking a trustworthy store of value due to their restricted supply, which keeps value stable and prevents inflation (Sukomardojo et al., 2023). They provide robust protection against overdependence economically on any country because of their decentralized structure. There is strong support for the idea that central banks should be subject to regulations rather than trying to accomplish a set of objectives in any way possible. Market volatility may occur if market participants make poor predictions about interest rate changes or if the central bank surprises the market by altering rates in a way that is not anticipated. This holds true for both the frequency and magnitude of rate changes. Indeed, empirical studies have demonstrated that excessive interest rate manipulation can have detrimental effects on the economy (Hayes, 2016). Cryptocurrency functions independently of governmental institutions due to its decentralized governance style, which lowers the possibility of political control or manipulation (Lekashvili & Mamaladze, 2019).

Cryptocurrency guarantees that money may be exchanged without intervention from governments or other organizations thanks to its irreversible smart contracts, privacy and anonymity features, and transactions that are immune to censorship. Furthermore, borderless transactions and greater financial inclusion lessen dependency on political institutions, and public ledger recording guarantees accountability and transparency. They reduce political risk and foster financial independence by offering an alternative to established financial systems, which make it a desirable choice for people looking to protect their investments (Wang et al., 2022). However, it is true that the swift expansion of the cryptocurrency market and the development of blockchain technology have altered the global financial scene by offering substitutes in the form of investable and tradeable digital assets. Contrarily, cryptocurrencies can have a complicated effect on macro-economic stability due to multiple cyber-risks involved with it. It is crucial to keep in mind that cryptocurrency is a quickly developing technology, and sound regulation can help mitigate its detrimental effects on macro-economic stability. Overly stringent regulations may hinder the industry's ability to innovate and expand. According to Bank Indonesia (2022), effective laws must thus continue to be applicable and flexible enough to accommodate changes in the bitcoin ecosystem and technical advancements (Sukomardojo et al., 2023).

2. Cryptocurrency Regulations; An Account of International Regime

The below mentioned account provides international regime that has regulated the use of digital currency and allowed the economic emancipation for their countries. The account remains useful for considerations to be adopted by Pakistan initially to counter the cyber-risks coupled with its operationalization. The first account under discourse on international regime that provides insights on the regulations of cryptocurrency is United Kingdom. The societal acceptance of cryptocurrency has steadily expanded in UK since its inception in 2008. Developed nations like Japan, Australia, the United States, and the United Kingdom have enthusiastically embraced cryptocurrency, realizing how it could influence financial technologies in the future. However, the legal framework surrounding cryptocurrency taxation has become a pressing concern due to its earning potential and susceptibility to illicit activities, such as tax evasion and other financial crimes (P. M. Dinithi Nisansala Jayasena, 2023). Jayasena argues that since the UK's withdrawal from the European Union, the country has been developing its own approach to regulate cryptocurrency. A significant milestone in this journey was the Financial Services and Markets Bill, which received royal assent from King Charles III on June 29, 2023. This bill aims to strengthen crypto regulations in the UK.

The United Kingdom has formed a regulatory framework for cryptocurrencies. The government has set out plans to robustly regulate crypto-asset activities, providing clarity and protection to consumers and businesses. The UK's Crypto-assets Taskforce, established in 2018, examines when and how crypto-assets should be regulated and identifies eight specific "actors" in the markets. The taskforce consists of the Financial Conduct Authority (FCA), the Bank of England, and Her Majesty's Treasury. The FCA also requires crypto exchanges to register with them, and bitcoin ATMs are legal in the UK, provided they are licensed and regulated by the FCA. The FCA requires crypto businesses to register and implement Anti-money laundering laws (AML) and know your customer (KYC) controls, including customer due diligence, ongoing monitoring, and reporting suspicious transactions. According to the interpretation of UK Government:

> *"Crypto assets are digital representation of value where the ownership is cryptographically proven via computer code "* (Shalchi et al., 2023).

The UK's crypto market has experienced notable expansion since the bill recognizing cryptocurrency as a regulated financial activity in June 2023. The country has risen to become the world's third-largest economy in terms of raw cryptocurrency transaction volume, surpassed only by the USA and India. Prior to the regulatory changes in 2022, the UK's cryptocurrency revenue averaged $0.89 billion. However, following these changes, revenue from the crypto-assets market surged to $1.94 billion (Wronka, 2024). Projections indicate that the UK's cryptocurrency market revenue will reach $2.53 billion by the end of 2024. In terms of taxation, individuals are liable to pay capital gains tax, while businesses are liable to pay capital gains, corporation tax, income tax, national insurance contributions, stamp duty, and value-added tax (P. M. Dinithi Nisansala Jayasena, 2023). In addition to encouraging innovation and expansion in the tech sector, the UK's cryptocurrency regulations have the objective to give businesses and consumers confidence and protection.

The second account renders the regulatory efforts by the Indian government. Over the past decade, Bitcoin and cryptocurrencies have emerged as two of the most widely used terms worldwide. A significant majority (83%) of Indians are familiar with cryptocurrencies. Furthermore, about 16% of the population actually owns cryptocurrencies, indicating a notable level of adoption and interest in digital assets. Younger millionaires typically devote 15% of their portfolios to virtual currencies and digital assets (Shinde, 2023). In March 2020, the Indian Supreme Court in ***Internet and Mobile Association of India v. Reserve Bank of India, 2018*** overturned a circular issued by the Reserve

Bank of India (RBI) prohibiting banks and financial institutions from facilitating cryptocurrency transactions, thereby reopening the market. The supreme court of India tendered a progressive approach in this case while supporting the arguments of support and facilitation to crypto-traders. It was argued that since the inception, crypto entities raised reservations pertinent to the circular issued by the RBI. Their reservations marked the culmination of Articles 19 (1) (g) and 14 of the Indian Constitution and at the same time, resultant to the closure of such firms as a corollary.

Article 19 (1) (g) stresses that every citizen has the right to engage in any employment, trade, or business. To the concerns pertinent to cyber-security, India is committed to combating questionable and illegal activity in the cyberspace sector, which encompasses the cryptocurrency industry. On April 28, 2022, the Indian Computer Emergency Response Team was named the national cybersecurity maintenance organization (Paesano & Siron, 2022). Some observers regard cryptocurrencies as a new financial trend, others see them as a paradigm shift that challenges society's social, political, and economic foundations. Some believe that the fervor surrounding cryptocurrencies caused by speculators and computer geeks. Even while cryptocurrencies are being used frequently to purchase financial assets, goods, and services, the economic component of this phenomenon is still evolving despite the fact that cryptocurrencies are being used more often to buy financial assets, goods and services (Panigrahi, 2023).

In India, cryptocurrencies are not prohibited. Although they are not accepted as legal cash either, it is lawful to trade, invest in, and hold cryptocurrencies. One of the objectives of the 2021 Cryptocurrency and Regulation of Official Digital Currency Bill in India was to outlaw private cryptocurrencies with some limitations and to establish the framework for the official digital currency of the Reserve Bank of India (RBI). Since the bill has not been passed or implemented, its status is now unknown. The RBI has released rules that banks and other financial organizations must abide by while handling transactions using cryptocurrencies. Cryptocurrency trading and investment may be governed by the Securities and Exchange Board of India (SEBI). In India, cryptocurrency revenue is subject to a flat 30% tax rate, which is somewhat peculiar to crypto-traders (Banu & Akash, 2022).

The third account tenders the account of cryptocurrency regulations by El Salvador. It becomes the first country to accept Bitcoin as legal tender resultant to a massive decision by its government. This global event triggered many predictions and deliberations associated with the Central American country and its financial system (Brian M. McCall, 2022). On June 9, 2021, El Salvador's government published legislation allowing Bitcoin to be used as legal money in the country's official gazette. The legislation became effective on September 7, 2021. Bitcoin has been accepted as legal money in El Salvador for a number of reasons. According to the World Bank, increasing the effectiveness of international remittances which account for more than 20% of the nation's GDP render one of the primary reasons (Quirk, 2021). The considerations to advance the economic emancipation offer multiple realities by its government. The government of El Salvador introduced Bitcoin technology to ease payment processes resultant to reduce costs and improve its accessibility issues. A major target was to reduce the population percentage of underbanked populations in El Salvador, which is around 70 percent in the region (Brian M. McCall, 2022).

The government advancement offers to make it easier for more people to access financial systems by allowing the use of Bitcoin. Further, it is argued that adopting Bitcoin as a legal tender will reduce El Salvador's dependence on the United States dollar. The nation regards Bitcoin as a neutral savings vehicle and aspires to invest in its economy through the cryptocurrency space (Quirk, 2021). According to the official website of the Government of El Salvador;

> *"We will support the development of a Fintech regulatory framework to strengthen electronic financial services in the country"* (Quirk, 2021).

Article 7 of this law deals with Mandatory Acceptance, which states that all economic agents must accept Bitcoin as payment for goods and services. This suggests that companies need to accept

Bitcoin and that it can be used to pay taxes. El Salvador's Bitcoin Law, which acknowledges Bitcoin as legal cash in addition to the US dollar. Businesses are required to accept Bitcoin; however, people remain at liberty to choose whether or not to use it. The law pertinent to Bitcoin also offers incentives to the investors. Foreigners who invest in Bitcoin can also become permanent residents, and transactions using Bitcoin are not subject to capital gains tax. These clauses seek to attract international investment, expand financial inclusion, and encourage the usage of Bitcoin in El Salvador (Brian M. McCall, 2022).

3. Cryptocurrency; A Panacea to Economic Stability of Pakistan?

The cryptocurrency owing to its latest developments in the global finance offers an opportunity to provides economic stability by improving the macro-economics of a country. Its decentralized framework lowers the possibility of political control and manipulation. A country like Pakistan with its struggling economy can resort to encourage the ownership, trade and investment of cryptocurrencies. Take the instance of Indonesia; The Indonesian government does not explicitly forbid cryptocurrency ownership, trading, or investing, but it does forbid using cryptocurrencies as a form of payment. They do, however, advise that cryptocurrency-related operations be conducted cautiously and in compliance with relevant laws. More specifically, Government Regulation No. 80 of 2019 on Procedures for Reporting Financial Transactions was released by the Indonesian government in 2019. According to this regulation, service providers of cryptocurrency asset exchanges must register and notify the appropriate authorities of their transaction activity. The objective is to keep an eye on cryptocurrency transactions in order to stop illicit activities like money laundering and financing terrorism (Sukomardojo et al., 2023). One cannot be certain on the point that the use of cryptocurrency can be a panacea for all the economic instability of a country like Pakistan, however one can argue that the government can adopt progressive approach and encourage the ownership, trade and investment of cryptocurrencies to render the economic emancipation to people and that would have positive impact on the macro-economic stability.

The economic instability in Pakistan remains perpetual owing to its macro-economic instability coupled with political instability that has exacerbated the economic conditions in Pakistan. Recent World Bank Report titled as; "Pakistan Development Update, 2024" provides the glimpse of struggling economy of Pakistan. The report provides that at the start of fiscal year (FY) 24, Pakistan was dealing with an economic crisis that increased the likelihood of debt default. Pressures on domestic prices and foreign reserves were caused by political instability, fiscal and external imbalances, and global monetary tightening. Measures to control capital withdrawals and imports were implemented in order to conserve reserves; these increased inflationary pressures and disrupted local supply networks and economic activity. In July 2023, the International Monetary Fund (IMF) approved the Stand-By Arrangement (SBA), which led to the introduction of fiscal consolidation measures, the relaxation of import limitations, and the restoration of exchange rate flexibility (The World Bank, 2024). The situation of economy in Pakistan always gets better owing to the external factors like friendly handouts and an IMF agreement. All these are short-term measures and cannot have longstanding impact to the economic stability unless bold measures are not taken by the government. The digital currency provides those potentials that can ameliorate the economic stability while considering the cyber-risks that can be mitigated through its rational regulation by the government of Pakistan. However, the recent encounter of state with the operationalization of cryptocurrency in recent past reflected the shortsightedness of the stakeholders and judiciary.

In recent case ***Waqar Zaka v. Federation of Pakistan & Others (C.P.No. D-7146 of 2019),*** On January 13, 2020, the State Bank of Pakistan stated that it had never deemed bitcoin to be unlawful. Despite this assertion, Pakistani banks, both domestic and foreign, continue to impede cryptocurrency dealers (Bilal, 2021). Contrarily, the constitution of Pakistan provides freedom of trade to its people and obstructs the state for the creation of any impediment that thwarts this fundamental right. Every citizen of Pakistan has the freedom to trade and conduct any business as long as it complies with the law, as stated in Article 18 of the 1973 Constitution. Article 8 of the same Constitution states;

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> *"…the State shall not make any law which takes away or abridges the rights so conferred and any law made in contravention of this clause shall, to the extent of such contravention, be void."*

As (Bilal, 2021) provides an argument that people should be allowed to trade in cryptocurrencies and they may be held accountable for taking on the risks themselves if they suffer losses as a corollary of using bitcoin. Nonetheless, the government must establish regulatory agencies to handle any frauds or contraventions resulting resultant to the usage of this technology.

In ***Waqar Zaka v. Federation of Pakistan & Others (C.P.No. D-7146 of 2019),*** the Sindh High Court provided a restrictive approach (Sukomardojo et al., 2023) by imposing strict restrictions on its use, exchange and ownership. The decision provided a discouragement to crypto-traders operating individually and a halt to their operations. In the same case the Federal Investigation Agency (FIA) determined that the entire trading technology was electronic fraud by invoking section 14 of the Prevention of Electronic Crimes Act, 2016 (PECA). Furthermore, the FIA apprehended cryptocurrency miners and sellers under the Pakistan Penal Code, 1860 (PPC), particularly sections 419 (cheating), 420 (fraud), 471 (passing fake documents as legitimate), and 109 (conspiracy, assisting, and abating). The FIA also remained accused of extorting money from detained crypto-miners and traders by their own sub-inspector, even in cases when no illicit activity was discovered as a corollary to this restrictive approach by the judiciary (Bilal, 2021). The court should have applied the progressive approach as applied by certain countries to allow its citizens to trade and have ownership at their own risk as protected by the constitution of Pakistan under Article 18. Waqar Zaka's efforts to promote cryptocurrency in Pakistan have been instrumental in increasing awareness and adoption. His social media platform, Bit Landers, has provided a community for cryptocurrency enthusiasts to connect and learn more about cryptocurrency. The launch of Ten Up, a local, regulated exchange in Pakistan, has provided a safe and secure way for users to buy and sell cryptocurrency. Ten Up has also partnered with local banks to provide a fiat on-ramp, making it easier for users to enter the cryptocurrency market. The growth of cryptocurrency adoption in Pakistan despite regulatory challenges is a testament to the potential of cryptocurrency for financial inclusion and economic growth. Despite the lack of clear regulations and guidelines, cryptocurrency has continued to grow in popularity, with many users seeing it as a way to access financial services and invest in a new asset class.

The relation between digital currencies and macro-economic stability in the first section has provided the scholarship that supports the argument that it has potential to ameliorate economic emancipation by offering innovative financial structure. The recourse to cryptocurrencies and its features like decentralized financial apparatus, a hedge against inflation owing to its limited supply and in case of allowing investment can have this potential to improve the economic stability of any country. However, the recourse to these features can only be possible if a country resorts to the effective regulation of its operationalization in country. Pakistan can procure this potential to improve its economy by rendering the conducive environment for the development of cryptocurrency industry. The first obstacle for Pakistan could be to comprehend the realization that; how the state can effectively allow its advancement? This inquisition can be solved if the state provides exertions to the effect of its regulation. The state can follow the variable-sum approach to consider the case studies of developed countries like South Korea, UK and El Salvador. The second section provides instances of international regime that how they countered the concern of its advancement in their countries. The Pakistan can follow the same trends by considering to its socio-economic limitations.

The argument to consider the positive boom in the macro-economic stability in Pakistan through the relevance of cryptocurrency remains weak without the possible considerations of its cyber-risks. The assertions regarding to its possible disadvantages prevail in the contemporary scholarships that can be problematic in case of Pakistan if authors try to neglect this trend. Although cryptocurrencies offer numerous advantages, including reduced transaction costs, quicker cross-border payments, and financial services accessibility for underbanked individuals, regulatory uncertainty, market volatility, and public skepticism are some of the problems preventing their widespread adoption (Khichi, 2024). Take the case study of Indonesia, in recent years, there have been several changes to government laws and regulations pertaining to cryptocurrency. At first, there were no explicit rules when cryptocurrencies like Bitcoin were first introduced in Indonesia. The nation's central bank, Bank Indonesia, did, however, publish a rule in 2017 that forbade the use of cryptocurrencies as payment methods. According to Bank Indonesia, using cryptocurrency in transactions has the potential to be exploited for money laundering and terrorism financing, as well as jeopardize the stability of the nation's financial system. Consequently, the usage of cryptocurrency as a payment method was immediately discontinued (Sukomardojo et al., 2023).

The primary obstacles impeding the adoption of cryptocurrencies involve persistent worries about security and fraud vulnerabilities that prevent its widespread use in developing countries. Customers demands certainty that fraud and hacks would not affect their transactions or assets and this predicament can not be resolved without the intervention of government (Kartono et al., 2024). Acquiescing to the fact that they are anonymous, they are attractive for illicit uses, such financing terrorists. In case of Pakistan this concern has more significant as the country remains the victim of commercialization of terrorism. The terrorism remains prevalent in Pakistan and continues to resurfacing again and again. Their legalization and regulation are requisite with possible consideration of this impression that the government will recourse to avoid this trend. Another concern is the absence of centralized authority or mediator, tracking down and identifying cryptocurrency transactions can be difficult in the absence of mediator. This anonymity and the lack of effective oversight make it challenging for authorities to monitor and halt illicit activities (Kartono et al., 2024).

The legalization and efficient regulation of cryptocurrencies are complicated by the dearth of tech-savvy lawmakers in many developing countries. The operationalization and regulation of cryptocurrency is contingent upon the certain laws and regulations. In case of Pakistan, the lawmakers are mostly oblivion to the innovative technologies and remain outdated to consider its effective realization. Several well-known instances from Indonesia serve as a warning of the detrimental consequences of ambiguous regulations governing virtual currency. For instance, one Bitcoin investment scam promised thousands of people abnormally high returns by taking advantage of the lack of clear laws on cryptocurrency investments. Many victims were unable to recover their losses since it was hard to find the missing assets (Kartono et al., 2024). Another challenge for law enforcement agencies of a country could be to capture digital assets linked to money laundering offenses. The procedure of confiscation remains complicated by the lack of clarity surrounding the admissibility of cryptocurrency as evidence (Khichi, 2024).

4. Policy Recommendations for Pakistan

- **i.** The government should adopt a two-pronged strategy to promote a flourishing cryptocurrency economy. First of all, it ought to create a regulatory environment where companies may develop and test out cryptocurrency solutions without worrying about facing legal ramifications. Strong laws should be included of this structure in order to stop illegal activity, safeguard users, and guarantee accountability and transparency. The government may use cryptocurrencies to promote financial inclusion and economic prosperity by finding a balance between innovation and regulation.
- **ii.** In order to create a favorable climate for the growth of cryptocurrencies, the government ought to think about providing tax breaks to entice companies and investors to do business there. Adopting a tax system akin to that of other nations, like India's 30% tax on cryptocurrency transactions, could not only bring in money but also boost the nation's economy.
- **iii.** To guarantee continued adherence to regulations, the regulatory body should have the authority to keep an eye on and conduct inspections of enterprises that hold licenses. Any

company that violates the rules should face fines, penalties, or other disciplinary measures. Additionally, the regulatory framework should incorporate the UK government's enacted measures to stop terrorist funding and money laundering, like the Know-Your-Customer (KYC) and Anti-Money Laundering (AML) laws. Infractions of crypto regulations should be dealt strictly and result in administrative sanctions.

iv. A flourishing digital economy depends on local cryptocurrency and exchanges, that must be being supported the government of Pakistan. Workshops and campaigns that inform the public about the advantages of local cryptocurrency and exchanges are essential to achieving this target and resultantly that will render the conducive environment for its advancement.

v. Working together with local fintech and startup businesses can also aid in creating cutting-edge solutions that are suited to the demands of our community. We can draw in worldwide investment by collaborating with global organizations to advertise local cryptocurrencies and exchanges. The ultimate goal of this assistance would be to enable people to use digital currencies, foster innovation, and help Pakistan's economic development.

vi. The government should opt for progressive and variable-sum approach while considering the successful accounts of international regime in regulating the digital currencies resultant to the economic dispensation for a country.

5. Conclusion

In conclusion, the legalization of cryptocurrency has the potential to contribute significantly to the macro-economic stability and economic emancipation for Pakistan. A country like Pakistan with its struggling economy can resort to encourage the ownership, trade and investment of cryptocurrencies. By providing a regulatory framework for cryptocurrency transactions, Pakistan can harness the benefits of block chain technology, increase financial inclusion, and attract foreign investment. The findings of this research suggest that cryptocurrency legalization can lead to increased economic growth, namely propriety, or the macro-economic stability, improved tax collection, and reduced corruption. Furthermore, it can render a safe and secure means of transactions, reducing the risk of fraud and money laundering. The research has culminated the account of international regimes in which most of the countries like UK, El Salvador and Indonesia applied the progressive approach while dealing with digital currencies. However, the approach in Pakistan to the concern of digital currencies remained restrictive that is resultant to the abandonment of innovation and economic dispensation. The corollary of that approach could have dire consequences to the impression that digital currencies and with its effective regulation and realization have potential to ameliorate the macro-economic stability of Pakistan.

However, it is important to address the challenges and risks associated with cryptocurrency, such as market volatility, security concerns, and potential illicit activities. To mitigate these risks, the government must establish a clear and consistent legal framework, implement robust regulatory measures, and provide education and awareness programs for citizens. In light of these findings, this research recommends that the government of Pakistan consider legalizing cryptocurrency and implementing a comprehensive regulatory framework to ensure its safe and secure use. By doing so, Pakistan can position itself as a leader in the digital economy, promote financial stability, and drive economic growth. The future of cryptocurrency holds immense promise, and Pakistan must seize this opportunity to reap its benefits.

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