CRYPTOCURRENCY AND MONEY LAUNDERING: A LITERATURE REVIEW

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Abstract

According to previous research, cryptocurrency is a driver of money laundering and is associated with several risks (Fletcher, Larkin, & Corbet, 2021; Teichmann & Falkner, 2020; Tsuchiya & Hiramoto, 2021). As a result, the purpose of this paper is to concentrate on empirical research in the accounting and finance fields that deal with the impact of cryptocurrencies on the phenomenon of money laundering. To identify relevant literature, we use the following keywords including “cryptocurrency or digital money” and “bitcoin and money laundering”. We identify 28 research papers published between 2011 and 2021. The findings of the studies that were reviewed emphasized the importance of developing a legal framework for digital currencies. Furthermore, it was revealed that all stakeholders play an important role in lowering the risk of money laundering and illicit activities. The findings highlight the critical role that banks, regulators, and all stakeholders play in reducing money laundering risks. These findings may have policy implications for governments aiming to improve cryptocurrency laws and regulations by enforcing financial security standards and laws and monitoring individuals’ and firms’ compliance with them. The review identifies some of the literature’s limitations and suggests future research directions.

Keywords: Cryptocurrency, Bitcoin, Money Laundering, Financial Crimes

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1. INTRODUCTION

Cryptocurrencies are digital currencies that differ from traditional currencies in that they are not issued by a government’s financial authority. This implies a high level of risk associated with financial insecurity, fraud, and an increase in financial crimes. Accordingly, the International Monetary Fund (IMF) has issued a warning about the global risks posed by unregulated cryptocurrency growth (Elliott, 2021). With a total market capitalization of more than $2 trillion¹, governments should be more active, effective, and collaborative in their policies. According to new research that deals with digital currencies and money laundering, money launderers are increasingly turning to decentralized finance (DeFi) protocols. In 2021, cybercriminals laundered $8.6 billion in cryptocurrency, a 31% increase over the previous year (Greig, 2022). Based on this reasoning, China, one of the largest cryptocurrency markets in the world, has declared that all cryptocurrency transactions are illegal and prohibited. The People’s Bank of China said it “seriously endangers the safety of people’s assets” (“China Declares All Crypto-Currency Transactions Illegal”, 2021). However, some countries, such as India, are rapidly expanding their cryptocurrency markets, while others, such as Russia, Morocco, Egypt, and Bangladesh, are tightening their regulations. The growing popularity of cryptocurrencies, as well as the fact that it is unregulated or under-regulated in many jurisdictions,

¹ https://coinmarketcap.com/
means that the financial sector has a lot to worry about. Due to the high risk of this phenomenon, the following declaration is a meeting note from the G20 of the Finance Ministers and Central Bank Governors in Japan, “While crypto-assets do not pose a threat to global financial stability at this point, we remain vigilant to risks, including those related to consumer and investor protection, anti-money laundering and countering the financing of terrorism” (Helms, 2019).

In this regard, the increasing market value of cryptocurrency, the lack of regulation, and the significant risk of financial instability necessitate serious work by all speakers, including standards-setting bodies and researchers; to investigate the effect of this phenomenon on global financial stability. Consequently, over the last ten years, there has been a rapid increase in research studies dealing with cryptocurrencies and money laundering. A growing body of studies has addressed the question of the impact of the use of cryptocurrencies on money laundering as a financial crime.

Dupuis and Gleason (2021) investigated the illegitimate use of cryptocurrency using Kane’s regulatory dialectic paradigm. The authors’ methodology examines recent significant events as well as the availability of crime-fighting tools in FinTech, and they work to develop a legislative and legal framework to combat the phenomenon of money laundering using cryptocurrencies.

We try to supplement these reviews by focusing on the impact of cryptocurrency on the phenomenon of money laundering. A comprehensive review of this topic may be beneficial to bank regulators and policymakers around the world in order to gain a better understanding of the impact of this phenomenon on the rise of financial crimes and money laundering.

The papers for this study were gathered through an electronic and manual search. Keywords used to find relevant studies included “cryptocurrency and money laundering” associated with “bitcoin and financial crime”. Elsevier, Emerald, Springer, ProQuest, Sage, Taylor & Francis, Wiley-Blackwell, and e-journals are among the editorial sources used. In this research, we looked at 28 studies published in peer-reviewed scientific journals between 2011 and 2021.

We intend in this paper to conduct a literature review on money laundering and cryptocurrency. To the best of our knowledge, this is the first literature survey that has summarized the linkage between the money laundering phenomenon and cryptocurrency.

As a result, the purpose of this study is to raise awareness about the impact of cryptocurrency on the phenomenon of money laundering, which is a major threat now and may contribute to financial instability, a rises in financial crimes, and illicit activities. It should be noted that evidence of money laundering and cryptocurrency remains limited. Due to the large volume of cryptocurrency transactions, work and research on the development of legal and legislative frameworks for the use of cryptocurrencies are still ongoing.

The rest of this paper is structured as follows. Section 2 gives a brief overview of money laundering and cryptocurrency. Section 3 describes how studies synthesized in this literature review were gathered. Section 4 presents theoretical underpinnings as well as a review of the empirical literature on the impact of cryptocurrency adoption on the phenomenon of money laundering. Finally, Section 5 concludes the paper.

2. MONEY LAUNDERING VERSUS CRYPTOCURRENCY

Firstly, cryptocurrency is an unregulated currency that does not rely on banks to validate or verify transactions. Furthermore, cryptocurrencies are not issued or controlled by any government or other central monetary authority. There are many types of cryptocurrencies such as bitcoin, ethereum, litecoin, and so on. Bitcoin and the majority of other cryptocurrencies are managed by a decentralized database, which is called blockchain technology. Secondly, money laundering is a technique for concealing the identity, origin, and destination of illegally obtained funds. Tax evasion and falsified accounting records are two common types of money laundering. Criminals frequently achieve these objectives through the use of shell companies and offshore accounts.

Consequently, criminals are increasingly looking for ways to profit from cutting-edge technology. Digital currency transactions have the potential to facilitate money laundering for criminals because they are transferred through an online platform, allowing cybercriminals to move funds instantly across borders. Bitcoin and other types of cryptocurrencies can be used for legitimate transactions (investment, payment of goods or services) as well as they can be used for illegitimate and criminal acts (tax evasion, drug trafficking, and illegal arms sales).

The purpose of a vast majority of illegal acts is to make money for the person or group who commits the crime. The processing of criminal funds to conceal their illegal origin is known as money laundering. This procedure is crucial since it allows the criminal to earn without jeopardizing their source of income. Large profits can be made by embezzlement, insider trading, bribery, and computer fraud schemes. As a result, cryptocurrencies are viewed as paving the way for an increase in financial crimes. Accordingly, Foley, Karlsen, Talis, and Putinš (2019) investigated the scope of cryptocurrency use and concluded that, according to their estimates, approximately 46% of bitcoin transactions facilitate illegal activity, confirming that “cryptocurrencies are transforming the black markets by enabling black e-commerce” (p. 1798). Therefore, due to the risks associated with the use of cryptocurrencies related to money laundering, some countries have prohibited their use and imposed fines on their users. Morocco, Bolivia, Nepal, Pakistan, Vietnam, and Algeria, for example, have restricted digital coin access. For example, the Vietnamese government imposes sanctions and bans on cryptocurrency users (Fischler, 2018).
3. STUDIES INCORPORATED IN THE LITERATURE REVIEW

To gather studies on the influence of cryptocurrencies on money laundering, we consulted a variety of accounting and finance publications, including digital sources such as Emerald, Springer, ProQuest, Sage, Taylor & Francis, Wiley-Blackwell, Elsevier, and e-journals. To discover relevant papers, we used the terms “cryptocurrency or digital money” on the one hand, and “bitcoin and money laundering” on the other. We found 28 publications dealing with the impact of cryptocurrencies on money laundering that were published between 2011 and 2021 as a result of our search. Studies reviewed in this paper are presented in Table 1.

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<th>Sources</th>
<th>Research questions</th>
<th>Summary of the findings</th>
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<td>Byrne (2011), Han, Huang, Liu, and Towey (2020)</td>
<td>The role played by information technology (IT) auditing and artificial intelligence (AI) in fighting money laundering and terrorist financing.</td>
<td>The use of sophisticated technology and AI help to create an effective anti-money laundering program that complies with the current business environment.</td>
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<td>Stokes (2012)</td>
<td>Money laundering risks in the world of two virtual currencies: the bitcoin and the Linden dollar.</td>
<td>Virtual currencies become more popular, and the ability to launder criminal funds will increase accordingly. As a result, anti-money laundering regulations must be implemented.</td>
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<td>Choo (2015), Kfir (2020), Kethini and Cao (2020)</td>
<td>The general risk factors associated with the use of cryptocurrency in terms of money laundering and terrorism financing risk.</td>
<td>Individuals involved in bribery and corruption will commonly seek to use cryptocurrencies to offend and launder their corrupt activities.</td>
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<td>Campbell-Verduyn (2018), González- Gallego and Pérez-Cárceles (2021)</td>
<td>The role of anti-money laundering regime as a tool of governance.</td>
<td>Anti-money laundering regime is effective in balancing the challenges and opportunities presented by digital currencies.</td>
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<td>Albrecht, Duffin, Hawkins, and Morales Rocha (2019)</td>
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<td>Barone and Masciadaro (2019), Foley et al. (2019)</td>
<td>Cryptocurrencies are associated with several risks.</td>
<td>The higher the risk, the greater the impact on the criminal organization’s proceeds.</td>
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<td>Butler (2019)</td>
<td>The impact of academic research on the bitcoin blockchain to determine whether cryptocurrencies are suitable for money laundering.</td>
<td>Cryptocurrencies are currently used for a very small percentage of crimes and are not the primary future threat that many claims. Cash is the real enemy in the fight against crime, and it continues to dominate.</td>
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<td>Inci and Lagasse (2019)</td>
<td>The advantages of adopting cryptocurrency over traditional currencies.</td>
<td>Lowering transaction costs, increasing transaction speed, and expanding investment opportunities are some of the benefits of using cryptocurrencies.</td>
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<td>Jacquez (2016), Bennett et al. (2021), El Maknouzi and Sadok (2021)</td>
<td>How can financial institutions, consultants, leaders, auditors, researchers, accountants, and regulators help with blockchain and crypto-asset issues?</td>
<td>All stakeholders should work together to create an appropriate regulatory framework and secure cryptocurrency transactions.</td>
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<tr>
<td>Dupuis and Gleason (2021)</td>
<td>The illegitimate use of cryptocurrency using Kane’s regulatory dialectic paradigm.</td>
<td>Strengthening the legal framework is the best alternative to combat the phenomenon of money laundering.</td>
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<td>Kankanam Pathiramage Xiao, and Li (2021)</td>
<td>The inefficiencies of bitcoins in developing countries.</td>
<td>Bitcoin’s efficiency will improve over time due to the complication of the process and the high level of uncertainty in emerging economies with high rates of inflation and governments with varying regulatory policies.</td>
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<td>Nadeem, Liu, Pitafl, Younis, and Xu (2021)</td>
<td>The factors influencing bitcoin adoption in the Chinese context.</td>
<td>There is a positive relationship between perceived ease of use and perceived usefulness and the intention to use bitcoin. The relationship between perceived ease of use and intention to use bitcoins is mediated by a perceived benefit.</td>
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4. A SURVEY OF EMPIRICAL RESEARCH

The studies reviewed look at the effects of cryptocurrency adoption on money laundering risks, the efforts of regulators in developing a regulatory framework to reduce money laundering risks, and the role of artificial intelligence and technology in combating the phenomenon of money laundering.

The empirical evidence for the association between cryptocurrency and the phenomenon of money laundering is presented in this section. Barone and Masciadaro (2019) highlighted that cryptocurrencies are associated with several risks and are used as a tool for money launderers to clean up their illicit revenue; the higher the risk, the greater the impact on the criminal organization’s proceeds. Brenig et al. (2015) conducted an economic analysis of money laundering schemes that employ cryptocurrencies, which are convertible decentralized...
virtual currencies based on cryptographic operations. The authors’ goal is to answer the unanswered question of whether cryptocurrencies are a driver of money laundering. Choo (2015) and Fletcher et al. (2021) investigated the general risk factors associated with the use of cryptocurrency in terms of money laundering and terrorism financing risk. More recent evidence (Tschiya & Hiramoto, 2021) focused on how cryptocurrency is laundered. The authors analyzed January 26, 2018, Coincheck exchange hacking incident that happened in Japan.

Frick (2019) addressed the issue of cryptocurrencies from a legislative standpoint as well as the European Union and Switzerland’s efforts to develop a legislative framework to combat money laundering. Furthermore, Edwards et al. (2019) highlighted that financial regulators must work collaboratively to develop a coordinated international regulatory response to violations in crypto-asset markets. For example, the Financial Economist Roundtable (FER), at its annual meeting on July 16, 2018, discussed the potential benefits and risks associated with crypto-asset markets. The FER members agreed on the enormous responsibility of financial regulators in reducing the risks of fraud, money laundering, and price manipulation that can result from the use of cryptocurrency. Moreover, González-Gallego and Pérez-Cárceles (2021) investigated the role of national institutions in cryptocurrency adoption. On a sample of 33 countries, the authors use the partial least squares structural equation modeling (PLS-SEM) method to test the potential causal effect of three governance constructs based on the World Bank’s Worldwide Governance Indicators. They discovered that the primary deterrent to citizens using cryptocurrencies is the dimension that includes government efficiency and regulation quality. This demonstrates that a strong welfare state is the most effective factor in discouraging citizens from using digital assets, whereas high-quality law enforcement and financial checks, which are typically used in ordinary transactions, encourage cryptocurrency adoption. In the study, Jacquez (2016) revealed the issue of enforcing banking laws in order to avoid the risk of illicit transactions and the ability to launder illicit gains as a result of the decentralized nature of the digital currency. In their analysis, the authors ask what law enforcement must do to track down illicit funds.

Kankanam Pathiranage et al. (2021) studied the inefficiencies of bitcoins in developing countries for six years to determine the market efficiency of blockchain. The authors concluded that bitcoin's efficiency will improve over time due to the complication of the process and the high level of uncertainty in emerging economies with high rates of inflation and governments with varying regulatory policies.

Stokes (2012) investigated the money laundering risks associated with two virtual currencies, the linden dollar and bitcoin. The author revealed that, while these virtual currencies have a benefit in money laundering, they are not currently suitable for large-scale money laundering. The current legal framework, however, is incapable of dealing with these new money transfer technologies. Furthermore, in order to counteract these digital developments and reduce the risk of money laundering, traditional financial infrastructure must become more sophisticated and effective. For example, El Maknouzi and Sadok (2021) discussed the importance of the development of an appropriate regulatory framework for virtual currencies in the United Arab Emirates (UAE) to reduce the risks connected to money laundering and the financing of terrorism. Silva Ramalho and Igreja Matos (2021) exposed the issues raised by bitcoin in terms of money laundering. The authors examined the legal framework applicable to bitcoin in light of money laundering prevention and repression provisions.

Abrecht et al. (2019) questioned how cryptocurrencies have been integrated into the money laundering process and how government regulations have taken this new form of currency into consideration. The authors conducted a theoretical analysis on strengthening financial regulations in order to reduce the risk of money laundering and corruption as a result of the adoption of digital currencies.

Teichmann et al. (2020) investigated how cryptocurrencies are used to launder money and what solutions can be implemented to address this issue. The authors conclude that money launderers continue to use cryptocurrencies like bitcoin as vehicles for financial crime. Furthermore, they have suggested that the Liechtenstein Blockchain Act could serve as a model for regulators around the world attempting to address the issue. Accordingly, Butler (2019) analyzed academic research on the bitcoin blockchain to determine whether it is true that cryptocurrencies are ideal for money laundering. According to the author, cryptocurrencies are currently used for a very small percentage of crimes and are not the primary future threat that many claim. Cash is the real enemy in the fight against crime, and it continues to dominate. Because it is anonymous, it is more useful to criminals than cryptocurrency. The future of money, however, is uncertain, and policymakers must recognize that cryptocurrency is surrounded by more controversy than the headlines suggest.

Nadeem et al. (2021) investigated the factors influencing bitcoin adoption in the Chinese context. A survey questionnaire was used to collect data from 385 Chinese respondents. The authors discovered a positive relationship between perceived ease of use and perceived usefulness and the intention to use bitcoin. The relationship between perceived ease of use and intention to use bitcoin is mediated by a perceived benefit.

Furthermore, through six currently available “open doors”, Dupuis and Gleason (2021) described the limitations and opportunities of cryptocurrencies as a tool for money laundering. The authors’ methodology includes events and the availability of FinTech crime-fighting tools as well as a literature review focused on the application of the regulatory dialectic to crypto-asset markets.

In their study, Kethineni and Cao (2020) posed four research questions: 1) What role do cryptocurrencies like bitcoin play in criminal activities? 2) What are the factors that facilitate cryptocurrency-related criminal activity? 3) What role does politics play in cryptocurrency regulation? 4) What challenges do they present to regulators and
law enforcement? The authors conducted a systematic content review of new reports, court cases, scholarly articles, and commentaries relevant to regulation and reforms in order to answer their questions. Their findings contribute to a better understanding of the virtual currency climate and its use in criminal activities.

Bennett et al. (2020) highlighted the importance of using technology and IT auditing in fighting the money-laundering phenomenon. He concludes that IT auditing is effective in reducing the risk of money laundering. The author also mentioned the importance of working on the development of IT auditing regulations to reduce the phenomenon of money laundering, which has a negative impact on the organization’s reputation.

Furthermore, Han et al. (2020) conducted a literature review on the significance of artificial intelligence in anti-money laundering. The authors described how financial institutions, such as banks, are using artificial intelligence to combat money laundering and identify money-laundering risks. The authors conducted a systematic review of artificial intelligence methods for anti-money laundering in their methodology.

Campbell-Verduyn (2018) evaluated the global anti-money laundering regime’s effectiveness in balancing the challenges and opportunities presented by digital currencies. The author discussed the issue of bitcoin in terms of anti-money laundering governance.

Bennett et al. (2020) asked how consultants, leaders, auditors, researchers, accountants, and regulators can assist in addressing blockchain and crypto-asset challenges. The authors emphasize that traditional market rules do not apply in the context of blockchain and crypto-asset groups. As a result, new challenges necessitate a new way of thinking. According to the authors, all stakeholders should collaborate to develop an appropriate regulatory framework to reduce the impact of cryptocurrency on money laundering.

5. CONCLUSION

With respect to the association between cryptocurrency adoption and money laundering risks, we identify three main limitations, which can be summarized as follows. The first limitation is that all previous studies have focused on cryptocurrency's negative aspects and how it contributes to financial insecurity. However, there are numerous advantages to adopting cryptocurrency over traditional currencies. For example, lowering transaction costs, increasing transaction speed, expanding investment opportunities, and so on (Inci & Lagasse, 2019). Second, the lack of accounting standards and laws that govern such transactions may pose a serious limitation for previous research studies to understand the new form of crimes caused by digital currencies (Kfir, 2020). Finally, the majority of previous studies are qualitative research that focuses on the phenomenon of cryptocurrency and its effects from a theoretical standpoint. As a result, quantitative research could be very useful for thoroughly investigating the effects of cryptocurrency. The study of the effect of cryptocurrency on money laundering represents an important issue for policymakers that may affect financial and economic stability, and more specifically, regulators should be aware of the financial crime risks associated with digital currencies.

Given its significance, the purpose of this paper is to review this empirical stream of research and provide a timely discussion about the impact of cryptocurrency adoption on increasing money laundering risks in particular and contributing to financial and economic instability in general.

Most studies, according to the reviews, look at the impact of cryptocurrency on money laundering risks, the need for a regulatory framework to reduce the risk of financial crime caused by digital currencies, and finally, the role of banks, auditors, consultants, and academics in educating the community about the risks associated with digital currencies.

In future studies, the accounting treatment of cryptocurrencies can be addressed, on the one hand. On the other hand, there is a need for interesting research avenues related to cryptocurrencies and the strength of auditing and reporting standards.

REFERENCES

