


COMPETITION LAW CONCERNS ON CRYPTOCURRENCIES

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ARTICLE INFO	<u>ABSTRACT</u>
<p><b>Article history:</b></p> <p><b>Received</b> 31 March 2023</p> <p><b>Accepted</b> 27 June 2023</p>	<p><b>Purpose:</b> The purpose of the study is to analyze the regulation of cryptocurrencies within the specific context of Competition Law. The research aims to examine the interrelationship between Competition Law and the blockchain technology that underlies cryptocurrencies.</p>
<p><b>Keywords:</b></p> <p>Cryptocurrencies; Competition Law; Challenges; Anti-Trust Issue; Enforcement Agencies.</p>	<p><b>Theoretical framework:</b> Cryptocurrencies is of concern in almost all the jurisdiction across the global and is of great challenge before all the regulators. The acceptance given to cryptocurrencies across various industries and among various countries is steadily increasing. This research paper would analyze on the regulation of cryptocurrencies in specific lines of Competition Law.</p>
	<p><b>Design/methodology/approach:</b> The research undertaken is a Doctrinal one. The study mainly depends on the collection of primary and secondary sources from books, journals, websites, case laws and such other sources. This study uses analytical, critical, comparative and other necessary methods to deduce the conclusion and to make out the findings of the study and to provide the suggestions.</p> <p><b>Findings:</b> The obtained results of the study allowed us to establish that there is a close interrelationship between Competition Law and the technology that operates the cryptocurrency which is the block chain technology. Cryptocurrencies give rise to several common and particular challenges to Competition Law enforcement agencies. They include the jurisdiction issue, market area, network effect, onus of liability, mergers and acquisitions, etc.</p> <p><b>Research, Practical &amp; Social implications:</b> The paper contributes to the understanding of the regulation of cryptocurrencies, specifically within the context of Competition Law. The paper sheds light on the legal implications of cryptocurrencies and provides insights into their impact on competition in various industries. The findings of this research can inform policymakers, regulators, and legal professionals involved in shaping the regulatory framework for cryptocurrencies. The research paper contributes to fostering a better understanding of the potential impact on market dynamics, consumer protection, and fair business practices. This understanding can promote transparency, trust, and accountability in the use of cryptocurrencies, benefiting both businesses and consumers.</p> <p><b>Originality/value:</b> The result of the research paper would give possible solutions to the problem faced by the Competition Law enforcement agencies in dealing with cases related to cryptocurrencies.</p> <p>Doi: <a href="https://doi.org/10.26668/businessreview/2023.v8i7.2774">https://doi.org/10.26668/businessreview/2023.v8i7.2774</a></p>

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## PREOCUPAÇÕES COM A LEI DE CONCORRÊNCIA SOBRE CRIPTOMOEDAS

### RESUMO

**Objetivo:** O objetivo do estudo é analisar a regulamentação das criptomoedas dentro do contexto específico do Direito da Concorrência. A pesquisa visa a examinar a inter-relação entre o Direito da Concorrência e a tecnologia blockchain que sustenta as criptomoedas.

**Estrutura teórica:** As criptomoedas são motivo de preocupação em quase todas as jurisdições do mundo e representam um grande desafio para todos os órgãos reguladores. A aceitação dada às criptomoedas em vários setores e entre vários países está aumentando constantemente. Este trabalho de pesquisa analisará a regulamentação das criptomoedas em linhas específicas do Direito da Concorrência.

**Projeto/metodologia/abordagem:** A pesquisa realizada é doutrinária. O estudo depende principalmente da coleta de fontes primárias e secundárias de livros, periódicos, sites, jurisprudências e outras fontes. Este estudo usa métodos analíticos, críticos, comparativos e outros métodos necessários para deduzir a conclusão e fazer as descobertas do estudo e fornecer sugestões.

**Resultados:** Os resultados obtidos no estudo nos permitiram estabelecer que há uma estreita inter-relação entre o Direito da Concorrência e a tecnologia que opera a criptomoeda, que é a tecnologia de cadeia de blocos. As criptomoedas dão origem a vários desafios comuns e específicos para os órgãos de aplicação da Lei de Concorrência. Eles incluem a questão da jurisdição, área de mercado, efeito de rede, ônus da responsabilidade, fusões e aquisições, etc.

**Implicações sociais, práticas e de pesquisa:** O artigo contribui para a compreensão da regulamentação das criptomoedas, especificamente no contexto do Direito da Concorrência. O documento lança luz sobre as implicações legais das criptomoedas e fornece insights sobre seu impacto na concorrência em vários setores. As conclusões desta pesquisa podem informar os formuladores de políticas, reguladores e profissionais do direito envolvidos na formação da estrutura regulatória das criptomoedas. O trabalho de pesquisa contribui para promover um melhor entendimento do possível impacto sobre a dinâmica do mercado, a proteção do consumidor e as práticas comerciais justas. Esse entendimento pode promover a transparência, a confiança e a responsabilidade no uso de criptomoedas, beneficiando tanto as empresas quanto os consumidores.

**Originalidade/valor:** O resultado do trabalho de pesquisa forneceria possíveis soluções para o problema enfrentado pelos órgãos de aplicação da Lei de Concorrência ao lidar com casos relacionados a criptomoedas.

**Palavras-chave:** Criptomoedas, Direito da Concorrência, Desafios, Questão Antitruste, Órgãos de Aplicação da Lei.

## PROBLEMAS DE LAS CRIPTOMONEDAS DESDE EL PUNTO DE VISTA DEL DERECHO DE LA COMPETENCIA

### RESUMEN

**Objetivo:** El objetivo del estudio es analizar la regulación de las criptomonedas en el contexto específico del Derecho de la Competencia. La investigación pretende examinar la interrelación entre el Derecho de la Competencia y la tecnología blockchain que sustenta las criptomonedas.

**Marco teórico:** Las criptomonedas son motivo de preocupación en casi todas las jurisdicciones del mundo y plantean un gran desafío a todos los organismos reguladores. La aceptación dada a las criptomonedas en diversos sectores y entre varios países no deja de aumentar. Este trabajo de investigación analizará la regulación de las criptomonedas siguiendo las líneas específicas del Derecho de la Competencia.

**Diseño/metodología/enfoque:** La investigación realizada es doctrinal. El estudio se basa principalmente en la recopilación de fuentes primarias y secundarias de libros, revistas, sitios web, jurisprudencia y otras fuentes. Este estudio utiliza métodos analíticos, críticos, comparativos y otros necesarios para deducir la conclusión y hacer los hallazgos del estudio y proporcionar sugerencias.

**Resultados:** Los resultados obtenidos del estudio han permitido establecer que existe una estrecha interrelación entre el derecho de la competencia y la tecnología que opera las criptomonedas, que es la tecnología blockchain. Las criptomonedas plantean varios retos comunes y específicos a los organismos encargados de la aplicación del Derecho de la Competencia. Entre ellos, la cuestión de la jurisdicción, el área de mercado, el efecto de red, la carga de la responsabilidad, las fusiones y adquisiciones, etc.

**Implicaciones sociales, prácticas y de investigación:** El documento contribuye a la comprensión de la regulación de las criptomonedas, específicamente en el contexto del Derecho de la Competencia. El documento arroja luz sobre las implicaciones legales de las criptomonedas y proporciona una visión de su impacto en la competencia en diversos sectores. Los resultados de esta investigación pueden informar a los responsables políticos, reguladores y profesionales del Derecho que participan en la configuración del marco regulador de las criptomonedas. El trabajo de investigación contribuye a promover una mejor comprensión del posible impacto sobre la dinámica del

mercado, la protección de los consumidores y las prácticas comerciales justas. Esta comprensión puede promover la transparencia, la confianza y la responsabilidad en el uso de las criptomonedas, beneficiando tanto a las empresas como a los consumidores.

**Originalidad/valor:** El resultado del trabajo de investigación proporcionaría posibles soluciones al problema al que se enfrentan los organismos encargados de la aplicación de la Ley de Competencia cuando tratan casos relacionados con las criptodivisas.

**Palabras clave:** Criptomonedas, Derecho de la Competencia, Desafíos, Cuestiones de Defensa de la Competencia, Agencias de Aplicación de la Ley.

## INTRODUCTION

Cryptocurrencies in general and Bitcoin in particular are the most discussed topics of recent times. Cryptocurrencies are considered to be a subset of virtual currencies which are in electronic form; protected by cryptography and used for peer to peer transaction payment. By their very definition, crypto means, “hidden,” and “not acknowledging openly” (The Cryptocurrency Freedom Philosophy, 2022). In the words of Satoshi Nakamoto, “crypto currency is purely a peer-to-peer version of electronic cash that would allow online payments to be sent directly from one party to another without going through a financial institution” (Satoshi Nakamoto, 2022).

The acceptance given to cryptocurrencies across various industries and among various countries is steadily increasing. The survey shows that 4% of employees in United States of America quit their employment because of their gains from crypto investments (Shomik Sen Bhattacharjee, 2022). El Salvador, Central American country planned to build the world’s first Bitcoin City which is funded by bitcoin backed bonds (Caitlin Ostroff, 2021). The Time Magazine is going to hold one of the cryptocurrencies on its balance sheet (Eliza Gkritsi, 2021). There are few theatres which are ready to accept cryptocurrencies as payment for the movie tickets (AMC Theatres will now accept cryptocurrency Shiba Inu as mode of payment, 2021). Many National Football League stars made their announcements in accepting cryptocurrencies as their salary (Adam Teicher, 2021). The Crypto Market hit its highest market cup of 3 Trillion Dollars in the first half of November, 2021 (Pawan Nahar, 2021).

In India nearly 15 million to 20 million investors invested 400 billion rupees in cryptocurrencies in India in November, 2021 (India seeks to block most cryptocurrencies in new bill, government says, 2021). India ranks 2<sup>nd</sup> position in terms of Global Cryptocurrencies Adoption Index for the period from July 2020 to June 2021 from 11<sup>th</sup> position for the earlier period (Sowmya Ramasubramanian, 2021). It is evident that masses support the

cryptocurrencies. There is massive adoption of cryptocurrencies by masses due to the decentralised concept which operates free of central banks.

The advent of block chain technology, forming the foundation of cryptocurrencies into society has changed the philosophy of life and created new rights and obligations. Like the revolution created with the arrival of the Internet and World Wide Web, the block chain technology and cryptocurrencies have taken their turn in this 21<sup>st</sup> century. They have changed the way of life of many in the society, changed the ideologies, the way people are connected to each other, etc. This change in life accelerated with the arrival of cryptocurrencies also necessitates the change in law. The dawn of cryptocurrencies is considered to be disruptive because of our laws' applicability in a centralized area rather than a decentralized arena where block chain technology and cryptocurrencies function. We do not know how to handle their impact on the world economy (Chainalysis, 2020).

Despite its huge recognition, the Reserve Bank of India in 2018 had issued advisory and other official warnings to the public not to buy and sell virtual currency and further barred Indian financial institutions from dealing with cryptocurrency exchange (Prohibition on dealing in Virtual Currencies, 2018). These circulars of the RBI were set aside by a three judge bench of the Hon'ble Supreme Court of India in March, 2020 by its decision in *Internet and Mobile Association of India vs. Reserve Bank of India* (Internet and Mobile Association of India vs. Reserve Bank of India, 2020). The current stand of the Indian Government is that "Yes" to Blockchain Technology and "No" to cryptocurrencies. There exist disparities among the countries in the world towards their approach on cryptocurrencies. The legal status of the currency, which is becoming very popular among the business communities and society, remains in the dark.

## RESEARCH QUESTIONS

1. What is cryptocurrency?
2. What is the interface between Competition Law and cryptocurrency?
3. What are the Competition Law concerns on cryptocurrencies?
4. How the market is determined in case of digital economy market?
5. What are the network effects of cryptocurrencies?
6. On whom the liability rests in anti competitive practices?
7. What are the impact of mergers and acquisitions in crypto market?
8. What is the global learning from antitrust cases in cryptocurrency market?

9. What are the possible regulations of cryptocurrency through Competition Law?

### INTO THE CRYPTOVERSE

National currencies like the US Dollar, Indian Rupee, Euro, Canadian Dollars, and others are about to be replaced by cryptocurrencies. This is due to the fact that cryptocurrencies have begun to emerge as highly competitive alternatives to fiat money. Without researching the subject's historical background, a study is not comprehensive. Investigating the historical basis of crypto currencies is crucial, for this reason. Although the history of cryptocurrencies is not very old, it has been intriguing and eventful.

Cryptocurrency is a digital asset built to work as a medium of trade. It is based on the cryptography technology to safeguard the transactional flow and to limit the formation of new currency units (Usman Chohan, 2022). Cryptocurrencies encrypt sensitive data transfers using incredibly complicated code systems or algorithms. As opposed to coins or paper money, cryptocurrencies have no physical form. Although we cannot physically hold them, we can use them to make purchases (So what is the history of cryptocurrency, 2021). These new kinds of cryptocurrency are decentralised in nature, as opposed to earlier iterations of digital currencies, which were rigorously centralised (The History of Cryptocurrency, 2022). Since the majority of cryptocurrencies are not governed by national governments, they are referred to as alternative currencies (Brian Martucci, 2021), or means of payment that operate outside of governmental monetary policy.

Most people agree that Bitcoin was the first contemporary cryptocurrency. The Bitcoin idea was first developed in 2007 by Satoshi Nakamoto, an eponymous individual or group (Bernard Marr, 2017). He published his white paper titled "Bitcoin: A Peer-to-Peer Electronic Cash System" on October 31st, 2008 (Satoshi Nakamoto, 2022). At first, Nakamoto was primarily interested in developing an electronic peer-to-peer payment system. Nakamoto made Bitcoin available to the public in early 2009, which kicked off the societal adoption of cryptocurrencies. In 2010, two pizzas were purchased for 10,000 Bitcoin in the first transaction to be conducted using Bitcoin. For the first time, this gave bitcoin a monetary worth (Bitcoin Was First Used To Buy Pizza, 2021).

Since then, other parties have released further decentralised coins. Numerous cryptocurrencies, such as Bitcoin, Ethereum, Primecoin, and many others that are only theoretical, are present in the world. There are thousands of crypto currencies, and new ones appear each month. There were 1614 different types of cryptocurrencies in circulation as of

April 2018, but by November 2021, that number has increased to 14933 (Coinmarketcap, 2022). The globe is now becoming a world of coins as a result of this massive influx of cryptocurrencies. All forms of central authority must be replaced by a decentralised, peer-to-peer, and open source trust protocol, which is a challenge posed by blockchain technology. Because there are constantly new advancements to coming, the history of digital currency is still being written as we speak (Team Koinex, 2017).

One should consider the distinctive characteristics of cryptocurrencies in order to comprehend how they differ from conventional currencies. Cryptocurrencies' primary attributes are their volatility, security, non-repudiability, user anonymity, speed and global reach, transparency, managed supply cap, etc.

Decentralisation sums up the cryptocurrency movement's guiding principle. Decentralisation refers to the idea that people or groups of people can communicate, cooperate, and conduct business without the intervention of third parties who must also approve, supervise, police, or otherwise regulate such interactions. A cryptocurrency network is one that, in the words of Satoshi Nakamoto, "timestamps transactions by hashing them into an ongoing chain of hash-based proof of work, forming a record that cannot be changed without redoing the proof of work." He summarised the structure and functioning of the system that came to be known as "block chain," which is essential to bitcoin and other cryptocurrencies. A decentralised ledger is what Bitcoin's block chain technology actually is. Consequently, it is the shift from a paperless to a humanless system. Although all blockchains are crypto currencies, not all crypto currencies are blockchains (Sanjay Mehta, 2018).

The block chain is a peer-to-peer distributed database ledger technology that may manage and record transactions without the need for centralised ownership or regulation. It is transparent to both parties in a transaction, much like an online bank ledger. Cryptocurrency transactions are all encrypted. This encrypted transaction is added as a "block" once it has finished. The block chain has complete data on all users. A block chain is a growing collection of information known as blocks that are connected and encrypted using cryptography. Block chain is a distributed ledger system that is spread across numerous computers. cryptocurrencies mining, a process in which transactions for different types of cryptocurrencies are confirmed and added to the block chain digital ledger, is used to validate transactions in the network. In the digital age, a cryptocurrency wallet serves as a secure digital wallet for receiving, sending, and storing digital currency.

## **EXISTING STATUS OF CRYPTOCURRENCIES IN INDIA**

The current position of the Indian government on this matter seems neutral and vague. The then-finance minister stated in his announcement on the Union Budget for 2018 that "the government does not consider crypto currencies as legal tender or coin and will take all measures to eliminate use of these crypto-assets in financing illegitimate activities or as part of the payment system" (Vivina Vishwanathan, 2018). A nine-person interdepartmental committee was established by the government in April 2017 with Dinesh Sharma, the department's special secretary for economic affairs, serving as its chairman. The State Bank of India, the Reserve Bank of India, the NITI Aayog, the Department of Economic Affairs, the Department of Financial Services, the Department of Revenue, the Ministry of Home Affairs, and the Ministry of Information Technology all sent representatives to the Committee. The Committee was tasked with assessing the state of virtual currencies both domestically and internationally, looking into the global regulatory and legal frameworks that govern them, suggesting ways to address issues like consumer protection and money laundering, among others, and looking into other pertinent virtual currency-related issues. (Government to ban cryptocurrencies from its payments system, 2018). The Committee sent in its findings to the Department of Economic Affairs on August 2, 2017. The Committee had suggested that bitcoin be banned and outlawed.

Evidently dissatisfied with the findings, the high-level Inter-Ministerial Committee was established by the Government on November 2, 2017, with Subash Chandra Garg as its chairman, with the goal of researching cryptocurrencies on a worldwide scale and making suggestions and recommendation for their regulation. In n July 2019 this committee along with a draught bill titled the Banning of Cryptocurrency and Regulation of Official Digital Currency Bill, 2019 filed a report advocating a complete ban on cryptocurrencies in India. The Central Bank of India (Rajeev Kumar, 2021) will issue Central Bank Digital Currencies as the Official Digital Currency, and all private cryptocurrencies will be outlawed in India. The Government of India had remained silent regarding this Committee's recommendation until it introduced The Cryptocurrency and Regulation of Official Digital Currency Bill, 2021, in February 2021. But during the Winter Session, this Bill was unable to be approved by the Parliament. (Sneha Kulkarni, 2022).

In the meantime, the Reserve Bank of India warned the general public not to buy and sell Bitcoins in 2013 and 2018. (RBI cautions users of Virtual Currencies, 2017). Official bitcoin warnings have been issued by the Indian central bank on a few occasions (RBI cautions

users of Virtual Currencies, 2017). The Central Bank has nevertheless forbade Indian financial institutions from doing business with cryptocurrency exchanges and other like services. The country's High Courts have received a number of Writ Petitions requesting the issuance of a writ of mandamus directing the pertinent parties to declare all virtual currencies, websites, and mobile applications that support and deal with virtual currencies as illegal and to ban them (Siddharth Dalmia vs Union Of India, 2017). They also ask for the establishment of an expert committee to consider the prohibition and regulation of cryptocurrencies (Dwaipayan Bhowmick vs Union Of India, 2017). By ruling in Internet and Mobile Association of India v. Reserve Bank of India in March 2020, a three-judge bench of the Apex Court overturned the RBI circular prohibiting any entity from offering banking services to anyone dealing with virtual or cryptocurrency currencies.

The Indian Government's current position is "Yes" to blockchain technology and "No" to cryptocurrency. The Indian government continues to monitor how virtual currencies operate. As a result, there is a trichotomy on the regulation of cryptocurrencies between the Reserve Bank of India, the Indian Government, and the Indian Judiciary. There is a significant degree of uncertainty in the determination of the characteristics of cryptocurrencies in India. This is due to the lack of clear regulations and guidelines from the Indian Government regarding the classification and treatment of cryptocurrencies.

## **WHAT IS THE INTERFACE BETWEEN COMPETITION LAW AND CRYPTOCURRENCY?**

G7 Report issued in the year 2020 dealing with the regulation of cryptocurrencies said that the “technology –neutral, functions-based” regulatory approach which ensures a level playing field and fair competition is necessary to promote the cryptocurrencies. Competition law deals with competition between the players in a market. The primary field is the study of market, product and its player, therefore cryptocurrencies should be seen as platform products that compete to attract both users and validators. The success of cryptocurrencies will depend on its ability to attract users on both ends. From the competition law’s perspective, it will set up a framework to ensure no anti-competitive activities take place in the market that can cause harm to its players and end-users. How the market is determined in case of digital economy market? Since India lacks law in the domain of digital markets and data protection, it is difficult to determine the market in the digital economy. (Viktor Savin, 2023) As on date, we have the Consumer Protection Rules and Information Technology Act that deals with few regulations



governing e-commerce in India. In US, the economic based approach is followed to determine the market that is rather to apply upward pricing pressure and group upward price pressure analysis.

### **WHAT ARE THE COMPETITION LAW CONCERNS ON CRYPTOCURRENCIES?**

The most common regulatory concerns on cryptocurrencies is the jurisdiction and market area. Firstly, since the Cryptocurrencies model is based on block chain and block chains are decentralized distributed ledgers. The nodes of the block chain are spread across the world and pin pointing anyone in engaging the disputes for regulating Cryptocurrencies is very challenging (Adam Hayes, 2022). The anonymous and pseudo-anonymous nature of Cryptocurrencies makes it very more difficult to ascertain the jurisdiction of Cryptocurrencies.

The second issue is the market area. Since, the Cryptocurrencies expands all over the world covering different exchanges and market area. There is no specific uniformity in the regulation of Cryptocurrencies across the globe. (Kevin George, 2022) Different countries are following their own protocols or guidelines for regulation or dealing with Cryptocurrencies as a whole. The market is specially volatile and erratic. The market capital keeps fluctuating which forms the main factor for the tractions existing in Cryptocurrencies. Cryptocurrencies apart from Bitcoin and few other popular Cryptocurrencies are not exclusively servicing as Cryptocurrencies but they are also used as Crypto Asset like Eutherfordium block chain is used to purchase applications or services so that it adds extra layer of regulatory measures. (Jeffrey Mazer, 2022):

### **WHAT ARE THE NETWORK EFFECTS OF CRYPTOCURRENCIES?**

The first and foremost regulatory concern on Cryptocurrencies from Competition Law point of view is the network effects of Cryptocurrencies. Tech giants and existing enterprises with huge share in the digital marketplace have unfair advantage and stifle competition. Value increases with the number of users (Fan Fang,2022). The capitalist nature of our market economy is taking an oligopolistic view. There are selected field players or enterprises to take major share of the market economy. The way these enterprises are designed that the larger area or the number of services they provide or the number of users they have, it keeps increasing their value. In short, this is called the network effect. If for example, all my contacts are on WhatsApp, unless and until similar social media platform is there in which all my contacts might did, there is no incentive for me to use that alternative social media platform. (Christophe

Samuel Hutchinson, Maria A. Egorova, 2022) So, the more people come on WhatsApp, the more value of WhatsApp keeps increasing. And similarly there was one more concern with this platform that Facebook is developing their own cryptocurrency called Libra and they own crypto wallet called Caliber. The plan on integrating this caliber crypto wallet to their Facebook messenger and WhatsApp messenger in that effect even if they I do not have any crypto wallet with me right now. But when I am given the opportunity to have one with an App that I am already using and sooner or later I will be bound to use the App or say someone is trying to pay me some money in cryptocurrency (Facebook developing cryptocurrency for WhatsApp transfers, 2018). I will just open this wallet in my existing social media App and transfer the money. So this is the network effect in play, and this provides an unfair advantage to the existing players, and is harmful to other players and plan on competing in the same market. This in essence does not provide an even level playing field for all the different cryptocurrencies. The main Facebook Libra project was supposed to launch in 2020 but there has been some regulatory measures and it was stopped. The main issue with it was that it gained critical mass, very fast. It is perhaps the most popular social media platform right now. And if it launched its own cryptocurrency, it was geared to be the most challenging things to all existing cryptocurrency. (WhatsApp to launch cryptocurrency targeting NRIs sending money home, 2019).

### **ON WHOM THE LIABILITY RESTS IN ANTI COMPETITIVE PRACTICES?**

The second concern from the point of competition law lies in the liability. What are the liabilities of the miners? Miners are the people who perform the calculations in the blockchain and as a reward, they get a small transaction fee or get paid in the cryptocurrencies itself. Now, if the theory of cryptocurrency is the cryptocurrencies are here to supplant the traditional fiat currencies (Cameron Harwick, 2016) · So are the miners, the new Bankers, or the new accountants of this new financial regime which is being envisioned by the cryptocurrency makers. Mechanism works is that all the miners compete to perform the solve the cryptographic solve and the one who solves the puzzle, the fastest manner gets to vote on what the next block would be. So they are not essentially competing for a lower transaction whereas people just competing to perform the calculation faster. It has been discussed quite heavily that mining takes a very energy intensive task. It is to make the task more efficient with there is a natural tendency for the creation of mining pools. (Mehmet Hasan Eken, Erkut Baloğlu, 2017). A lot of miners come together and pool their resources to perform the mining process more

effectively. This in essence appears to be the form of a natural cartel. They are performing to restrict competition in the mining pools and to perform their job effectively. But from competition point of view, this does not necessarily harm the competition. It in fact, enables them to mine more effectively and is somewhat more efficient for the entire crypto economy. (Eitan Altman,2020)

## **WHAT ARE THE IMPACT OF MERGERS AND ACQUISITIONS IN CRYPTO MARKET?**

The next point of issue for the competition law concern would be the issue of mergers and Acquisitions. It is common phenomena in today's digital data driven economy that a new startup is coming and the existing startups will see them as a threat for a potentially interest by that innovation. They acquire them and merge the resources. So in that manner, where our crypto exchanges that are coming up to provide services of crypto currency exchange and their mergers and acquisitions are envisioned to be working in the similar way. (Chetan Thathoo,2022). We regulate the financial exchanges and the crypto wallets provide the same services as payment service providers. So merger and acquisition of these with lack of regulatory framework, it is speculated that if and when the regulation is in place to function in a similar wall manner as the existing payment service providers are regulated. Then, there is the issue of merger between exchange and wallet which are so called as vertical mergers (Andres Guadamuz, Chris Marsden, 2015). The exchange and a wallet can merge their services and bundle their services and provided to the user at a better cost or lower transaction fee.

## **WHAT IS THE GLOBAL LEARNING FROM ANTITRUST CASES IN CRYPTOCURRENCY MARKET?**

The market power enjoyed by BTC is has made VTC, the vehicle currency for all cryptocurrencies. BTC always has same side inception, the most market share and market capital. This is for the major part attributed to its benefit of being the first mover. It is famously known as the first cryptocurrency and it is what laid the groundwork for the Block Chain mechanism to take off in the current economy (Tobias Adrian,2022). So BTC has begun to cryptocurrencies what USD is to fiat currency. If we want to convert Indian Rupee (INR) to Great Britain Pound (GBP), the version is actually executed like, INR is first converted to USD exchange rates and then the USD exchange into GBP. Similarly BTC is the vehicle of conversions of cryptocurrencies. If one wants to convert Ether to Ripple currency the Ether gets

converted to Bitcoin and then the Bitcoin gets converted to Ripple currency. (Steve Hucle, 2017) In India, as in June 2021, 1 billion USD worth of cryptocurrencies speculated to be held by Indian Citizens. 7 million users in India and 800% increase in volume of trading and investing in cryptocurrencies since the covid-19 Pandemic. (India among the global leaders for crypto adoption, 2021)

In *United American v. Bitmain Inc* (United Am. Corp. v. Bitmain, Inc, 2021), is the dubious claim of being the first case dealing with anti-trust issue. The fact of the case is that Bitcoin Cash which was a cryptocurrency was scheduled for an upgrade of software in November 2018. There arose a dispute between the programmers and the discussion was whether to proceed with Bitcoin ABC update or Bitcoin SB Software update. So, as per the groundwork laid by Satoshi Nakomoto in his Blockchain White Paper, these kinds of issues should be solved in the democratic process. All the miners will compete with their computing power and vote for which node, they want to be implemented. And the node with the most number of votes will win the hash war and it will get implemented in the blockchain. So a similar dispute arose between Bitcoin ABC and Bitcoin SP (Joe Liebkind, 2022). The conspirators in this case, primarily were Bitmain. Bitmain is also a very dominant player in the cryptocurrency market simply because Bitmain technologies is 75% market shareholder of manufacturing is ASIC machine. ASIC stands for application specific integrated circuits. They are designed to perform a specific task which is the task of mining capabilities. Bitmain is the largest manufacturer of these products (Blake Schmidt, 2018). Since it is in the business of manufacturing, it also controls over 60%. of mine pools including the largest pools like Antpool are controlled by Bitmain Technologies.

Another aspect of this is the predominance of Bitmain is that it is based in China. Chinese Government provides Bitmain Technologies electricity at a subsidized rate. The electricity rates for Bitmain Technologies is much cheaper than any other there in the market. (Zheping Huang, 2018) So, Bitmain enjoys an unfair advantage in its own country and provides its services to its users. Bitcoin.com wallet and bit cash exchange wallet are also controlled by Bitmain. In November 2018, the Bitmain and Bitcoin ABC colluded together and bought in additional mercenary miners from the Bitcoin main server and increases the hashing power of Bitcoin.com by 4,000 percent. This type of fluctuation was never seen before in the crypto rising method. (Syed Mohammad Yawar, Rahul Shaw, 2022)

After the hashing war, the voting was manipulated by the conspirators. The rented miners were successful in collecting Bitcoin ABC as the new software update. The miners were

moved from Bitmain servers to sabotage the democratic voting process. The existing miners were selecting Bitcoin SV which was leading with 70% nodes in the nodes but after the hostile takeover, Bitcoin ABC won the voting process and subsequently, it became implemented in software update. The story did not end there, Bitcoin ABC implemented some tactics in the social media and spread the news that Bitcoin SV is unreliable. It has much risk in the environment and thus, the user sentiment was heavily manipulated and the investments in the Bitcoin SV started dropping and pooling into the Bitcoin ABC. In Kraken which is the largest cryptocurrency exchange took the ticker of BCH Bitcoin Cash and applied it to Bitcoin ABC thereby signifying to the users that Bitcoin SV is unreliable. This collision process estimated a loss of 4 billion US Dollars in the global cryptocurrency capital. The case was registered in the US. United American is the plaintiff in this case and he was based in United States. The case was dismissed in April 2021 on the grounds that factual evidence does not support the prosecution of Bitmain Technologies and the polluters. Thus, we can see that even though on paper all the facts point to an obvious delusion and violation of the Bitcoin white paper protocols and tampering and un-tampering ready process in the crypto market. Still due to lack of regulation and proposed framework it is hard to prosecute the offender under the competition law.

### **WHAT ARE THE POSSIBLE REGULATIONS OF CRYPTOCURRENCY THROUGH COMPETITION LAW?**

The case before US court was prima facie very interestingly able to provide all this details that there was an obvious conclusion, the facts speak for themselves. Even though due to the lack of proper framework, they were able to get away with this and the faith in Bitcoin has been fallen. These kind of acts damage the reputation of cryptocurrencies, which is not all that good. But they also provide further harm to the user sentiment and faith in cryptocurrencies. So, what the competition authorities specifically in India and around the world do for this. Well, in the digital economy, there is one silver lining in all the problems that the same person who is offenders in a different jurisdiction and the same people are the offenders, in the Indian jurisdiction. (Umawadee Detthamrong, 2023) If Facebook, Google, Apple, Amazon, etc they are the big giant are the offenders in US and they are the same deacon, they commit, the same offenses, the same interaction in the EU and the same interactions in the Indian Country. So to ensure the fair competitive ground for the cryptocurrency economy , the probable cause of action for Indian competition authorities is to keep a close, watch on the mining pool and mining

farms. Mining farms and pools as a natural tendency to appear as cartels so a close monitoring would help a long way in ensuring the fair competitive process. Regulating the ASIC protocols, which application specific integrated circuits are made, would also help to make the mining process, more energy-efficient. Self-governance of the block chain technologies is the preferred way since the block chain technology is designed to be decentralized.

So, it should be allowed to keep them and enjoy them with full degree of self-governance and comply with the statutory laws. Evaluation of the network effects, like strict monitoring of the Facebook cryptocurrency and proper appraisal of the effect if it was allowed to launch should be done or specialized team of lawyers, economists, data scientists and computer science experts need to be kept in place as a standing committee to observe all the progress we made in the crypto economy and since there are the same offenders and the same class of offenses, there should be increased International cooperation between the legislator and competition authorities of different countries. A multilateral initiative at this level is very daunting but we can work on it and the last but most important point would be to appraise the Central Bank Digital Currency and the private cryptocurrencies in the same manner. In the draft regulation of Official Digital Currency Bill, it was quite heavily stressed that private cryptocurrencies are harmful to the economy. But RBI and Government is seriously contemplating into introducing our own Central Bank Digital Currency. Since the cryptocurrencies are in essence competing with the fiat currencies, the currency of the sovereign state, it is particularly necessary to judge them in an unbiased manner.

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