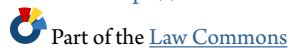


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DO CONSUMERS NEED A ‘BIT’ MORE PROTECTION UNDER AUSTRALIAN CONSUMER LAWS? THE REGULATORY RISKS AND CHALLENGES OF BITCOIN

Chinelle Van Der Westhuizen*

ABSTRACT

The creation of Bitcoin, as a digital currency, has been a significant development in the world of finance, in that it provides an alternative method of payment to consumers and businesses who use Bitcoin as a means to buy or sell goods or simply as an investment arrangement. The use of Bitcoin, as a decentralised peer-to-peer network, provides numerous benefits as a payment system, but at the same time, creates challenges for consumers due to its unregulated nature and volatile status. Therefore, when Bitcoin users enter into agreements with Initial Coin Offering (ICO) hosted companies and Bitcoin exchange platforms, the conduct by these ICOs and exchanges may be misleading and unconscionable in relation to the information they disclose to the Bitcoin user (as a consumer). This paper will consider the application of the Competition and Consumer Act 2010 (Cth) and whether the Australian Consumer Law is suited to take into consideration Bitcoin transactions under the misleading and unconscionable provisions.

I INTRODUCTION

From traditional barter to new age payment systems like Bitcoin, technology has developed over the centuries in making it possible for society now to trade in goods and services with digital currencies. The use of digital currencies, in particular Bitcoin, has provided many consumers, whether individuals or businesses, with an alternative payment method; however, the regulatory challenges associated with

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this type of payment system are still a concern. Some governments, including the Australian Government, have issued guidance notes to individual consumers and businesses relating to the use of Bitcoin as a payment system. The aims of these guidelines are to ensure that consumers and businesses are informed about the advantages and disadvantages of Bitcoin's use. Nonetheless, whether these guidance notes are sufficient to protect a consumer from unwanted failures in this payment system is still in question. Should there be 'something more' than guidelines for the use of Bitcoin and the challenges it creates for consumers? As noted by Tu and Meredith, regulation of Bitcoin 'does not fit neatly into existing models of regulation'.¹ Therefore, the challenges and need for regulation within a consumer framework will be considered in this paper in order to establish a suitable approach to regulating Bitcoin as a payment system when purchasing and trading.

The first part of this paper will consider what Bitcoin is and how this digital currency operates within the Blockchain network. Part two will be focusing on the predicaments Bitcoin raises for consumers when dealing with it as a payment system. The last part of this paper will pay attention to the Competition and Consumer Act 2010 (Cth) and how the Australian Consumer Law² regime applies to the buying, selling and/or investing of Bitcoin. This is central to the discussion on how a consumer's rights will be affected under the Australian Consumer Law (ACL), when false and misleading information is provided to the consumer (user of Bitcoin) through unconscionable conduct.³

II THE CONCEPT AND FRAMEWORK OF BITCOIN

A Introduction

Bitcoin, as a modern form of payment system, has been expressively described as 'a masterpiece of technology – a work of genius on par with the *Mona Lisa*⁴ as well as a 'phenomenal invention'.⁵ Therefore, different consumers, whether individuals

1 Kevin Tu and Michael Meredith, 'Rethinking Virtual Currency Regulation in the Bitcoin Age' (2015) 90 *Washington Law Review* 271, 271.

2 *Competition and Consumer Act 2010* (Cth) sch 2.

3 *Ibid.*

4 Joshua Doguet, 'The Nature of the Form: Legal and Regulatory Issues Surrounding the Bitcoin Digital Currency System' (2013) 73 *Louisiana Law Review* 1119, 1119.

5 Reuben Grinberg, 'Bitcoin: An Innovative Alternative Digital Currency' (2011) 4 *Hastings Science & Technology Law Journal* 159, 161.

or businesses, are able to use this technological invention as an additional form of payment system when buying or selling goods and/or investing in Bitcoin. Furthermore, Bitcoin as a 'phenomenal invention' is summarised by Tucker as follows:

There is something special about Bitcoin that makes it inherently resistant to government control. It is built on code. It lives in the cloud. It is globalised and detached from the nation state, has no own institutional owner, operates peer to peer, and its transactions are inherently pseudonymous. It cannot be regulated in the same way as the stock market, government currency markets, insurance, or other financial sectors.⁶

It is therefore considered an appealing development in the technological world for consumers, in that Bitcoin provides consumers with an alternative to purchasing goods or services instead of the use of traditional fiat such as the Australian Dollar. In this regard, it is fundamental to understand the development of Bitcoin and how consumers use Bitcoin as an alternative payment system to purchase goods or services or use it for investment purposes.

B The development of Bitcoin

Bitcoin, as a digital currency, was created and introduced in 2009 by an individual identified as Satoshi Nakamoto.⁷ Nakamoto participated in numerous technological projects with different entities; however, has been silent on Bitcoin projects since 2010.⁸ The true creator of Bitcoin remains to be seen, besides the fact that controversy was sparked in 2016 when Dr Craig Wright, an Australian technology entrepreneur, acknowledged that he was the creator of cryptocurrencies and the well-known 'Satoshi Nakamoto'.⁹ However, these claims still remain unclear. Since the creation of Bitcoin and its software, it has attracted numerous consumers and businesses to take advantage of this type of technology and the ample benefits it delivers such as privacy, anonymity and low or no transaction fee costs.

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- 6 Jeffrey Tucker, *Should Bitcoin Be Regulated Like Dollars* (May 2013) in Daniela Sonderegger, 'A Regulatory and Economic Perplexity: Bitcoin Needs Just a Bit of Regulation' (2015) 47 *Washington University Journal of Law and Policy* 175, 175.
 - 7 Noel Yahanpath and Zeb Wilton, 'Virtual Money: Betting on Bitcoin' (2014) 17(1) *University of Auckland Business Review* 37, 38.
 - 8 Coindesk, *Who is Satoshi Nakamoto* (19 February 2016) <<https://www.coindesk.com/information/who-is-satoshi-nakamoto/>>.
 - 9 Australian Broadcasting Company, 'Bitcoin: Australian Craig Wright Confirms he is Creator of Digital Cryptocurrency in Confession to Media' ABC (online), 2 May 2016 <<http://www.abc.net.au/news/2016-05-02/bitcoin-creator-craig-wright-publicly-identified/7377554>>; *Sydney Morning Herald*, 'Australian Craig Steven Wright Reveals Himself as Bitcoin's Mysterious Mastermind Satoshi Nakamoto' *Sydney Morning Herald* (online), 2 May 2016 <<http://www.smh.com.au/technology/innovation/australian-craig-steven-wright-reveals-himself-as-bitcoins-mysterious-mastermind-satoshi-nakamoto-20160502-goke5e.html>>.

In general, Bitcoin can be labelled as a 'digital currency'.¹⁰ It is referred to as a decentralised payment system that makes use of a peer-to-peer network when making payments or transactions.¹¹ Peer-to-peer networks can be defined as 'distributed systems consisting of interconnected nodes able to self-organise into network topologies with the purpose of sharing resources...without requiring the intermediation or support of global centralised servers or authorities'.¹² Similarly, the Financial Action Task Force (FATF) defines digital currencies as 'a digital representation of value that can be digitally traded and functions as (1) a medium of exchange; and/or (2) a unit of account; and/or (3) a store of value, but does not have legal tender status'.¹³ Thus, a complex mathematical code or so-called cryptography is used to make sharing of resources, specifically trading of currencies, between users possible without the intervention of a third-party banking institution because of the lack of legal tender status.¹⁴ It is therefore an unconventional method of payment compared to other traditional payment methods such as credit cards and EFT payments used by consumers or businesses.

It is also a system that uses pseudonyms and cryptography,¹⁵ in order to make these online payments.¹⁶ In developing this system, Satoshi Nakamoto's aim, purportedly, was to remove the third party financial observer, for example the Reserve Bank of Australia, from the three-way party transaction.¹⁷ Therefore, no legal entity governs the process of Bitcoin transactions and because of the lack of government regulation, the development and nature of Bitcoin has made consumers vulnerable to numerous legal issues.

10 Grinberg, above n 5, 162.

11 Nicole Swartz, 'Bursting the Bitcoin Bubble: The Case to Regulate Digital Currency as a Security or Commodity' (2014) 17 *Tulane Journal of Technology and Intellectual Property* 319, 320.

12 Stephanos Androutsellis-Theotokis and Diomidis Spinellis, 'A Survey of Peer-to-Peer Content Distribution Technologies' (2004) 36 *ACM Computing Surveys* 335, 337.

13 Financial Action Task Force, *Virtual Currencies: Key Definitions and Potential AML/CFT Risks*, FATF Report (June 2014) <www.fatf-gafi.org>.

14 See, eg, Jeffrey Simser, 'Bitcoin and Modern Alchemy: In Code We Trust' (2015) 22 *Journal of Financial Crime* 156-169.

15 Makes use of mathematical equations to transfer money. A 64-digit algorithm needs to be solved in order to obtain at least 50 Bitcoin in a transaction.

16 Francis Mann, *The Legal Aspect of Money: With Special Reference to Comparative Private and Public International Law* (Clarendon Press, 4th ed, 1982) 8. See also Catherine Christopher, 'Why on Earth do People use Bitcoin?' (2014) 2(1) *Business & Bankruptcy Law Journal* 1-3. After 2010, the first pizza could be bought. The value was \$25 in exchange for 10,000 BTC – Loredana Maftai, 'Bitcoin – Between Legal and Informal' (Working Paper VI, University of Iasi, Romania, 2013) 53, 57.

17 Doguet, above n 4, 1122.

C The players and operation of Bitcoin

The operation and use of Bitcoin as a means of payment may seem basic; however, in order to facilitate a payment through this network, Bitcoin will need to complete a number of stages in order for a Bitcoin user to access those funds when buying or selling items. Bitcoin are not traded through traditional banking methods but through a process called ‘mining’ on the Blockchain network. This network allows users to create and open electronic wallets, on the user’s computer, to store Bitcoin, and is effectively seen as a stand-alone payment system.¹⁸ In brief, the ‘mining’ process works as follows.¹⁹ A computer with distinct and unique software will ‘mine’ or create a Bitcoin using specific mathematical calculations. Baros compares this mining process to mining gold and adds that ‘mining is a competitive process in which Bitcoin “miners” use special network processors and hardware to process transactions, secure the network, and solve algorithms that generate new Bitcoin’.²⁰ This process can further be explained as follows:

A user, wishing to make a payment, issues payment instructions that are disseminated across the network of other users. Standard cryptographic techniques [mining] make it possible for users to verify that the transaction is valid – that the would-be payer owns the currency in question. Special users in the network, known as ‘miners’, gather together blocks of transactions and compete to verify them. In return for this service, miners that successfully verify a block of transactions receive both an allocation of newly created currency and any transaction fees offered by parties to the transactions under question.²¹

Therefore, once the algorithm is solved by using the mining process, the software network will mark the transaction as a ‘block’.²² The ‘block’, also referred to as the ‘Blockchain’, is only a record-keeper of all the transactions solved. The Blockchain

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- 18 Cara R Baros, ‘Barter, Bearer, and Bitcoin: The Likely Future of Stateless Virtual Money’ (2014) 23 *University of Miami Business Law Review* 201, 212.
- 19 See Chris Rose, ‘The Evolution of Digital Currencies: Bitcoin, A Cryptocurrency Causing a Monetary Revolution’ (2015) 14(4) *International Business and Economics Research Journal* 617; Rainer Böhme, Nicolas Christin, Benjamin Edelman and Tyler Moore, ‘Bitcoin’ (2014) *Journal of Economic Perspectives* 6-7; LS, ‘How Bitcoin Mining Works’, *The Economist* (online), January 2015 <<http://www.economist.com/blogs/economist-explains/2015/01/economist-explains-11>>; Ken Tindell, ‘Geeks Love the Bitcoin Phenomenon Like They Loved the Internet in 1995’, *Business Insider Australia* (online), April 2013 <<http://www.businessinsider.com.au/how-bitcoins-are-mined-and-used-2013-4?r=US&IR=T>>.
- 20 Cara Baros, ‘Barter, Bearer, and Bitcoin: The Likely Future of Stateless Virtual Money’ (2015) 23 *Miami Business Law Review* 201, 213.
- 21 Robleh Ali, John Barrdear, Roger Clews and James Southgate, ‘Innovations in Payment Technologies and the Emergence of Digital Currencies’ (2014) 54(3) *Quarterly Bulletin* 266.
- 22 Ibid.

is also a public record-keeping system of all Bitcoin transactions shared between all Bitcoin miners and users. This public ledger was included into the 'mining' system in order to keep a footprint of transactions and circulation of coins in the system.²³ The Blockchain will then send the 'miner' a confirmation that the transaction occurred. This confirmation only reveals to the miner that the transaction was processed.²⁴

As soon as a confirmation is sent and confirmed, a private key will be delivered to the user's Bitcoin wallet, which is similar to a bank account but only within an online computer application.²⁵ This private key provides the Bitcoin user with an online address (similar to an account number within traditional banking) to spend and trade the Bitcoin within that account. This is a very significant feature of the Bitcoin system because the private key is sent directly to the user's wallet and not stored on the Blockchain, which indicates users are anonymous in their private dealings with one another.²⁶ However, as mentioned, Bitcoin also includes a public ledger which signifies that there is a public key available when operating Bitcoin on the Blockchain network.²⁷ Therefore, according to Luther and Olson, Bitcoin 'functions as a public record-keeping device'.²⁸

The public and private keys are different in that the public key will be displayed on the public ledger (record) whereas the private key is used to make anonymous payments using the Bitcoin wallet. Once the Bitcoin are sent to the user's wallet and the user has access with the private key, the user can make use of different Bitcoin exchange platforms to store and exchange their Bitcoin.²⁹ Once the Bitcoin are sent to a wallet, it is necessary to exchange the Bitcoin to, for example, Australian Dollars on a Bitcoin exchange platform if the user wishes to use Bitcoin as traditional fiat currency.³⁰ Although the process of 'mining' is needed to generate and trade Bitcoin, the supply and circulation of Bitcoin is limited to 21 million.³¹

23 Ibid. See also Stephen Small, 'Bitcoin: The Napster of Currency' (2015) 37 *Houston Journal of International Law* 581, 582.

24 Ibid 213. See also Larissa Lee, 'New Kids on the Blockchain: How Bitcoin's Technology Could Reinvent the Stock Market' (2016) 12 *Hastings Business Law Journal* 81, 87.

25 Ibid. See also Danton Bryans, 'Bitcoin and Money Laundering: Mining for an Effective Solution' (2014) 89 *Indiana Law Journal* 441, 443.

26 Ibid.

27 Franco Pedro, *Understanding Bitcoin* (Wiley, 2014) 56.

28 William Luther and Josiah Olson, 'Bitcoin is Memory' (2013) 3(3) *Journal of Prices and Markets* 22.

29 Some exchange platforms include Flexcoin and Mt Gox, but both these platforms have been shut down due to Bitcoin disappearing from the system as a result of online hacking.

30 See for example Coinbase.

31 The Statistics Portal, *Number of Bitcoin in Circulation 2011-2017* (2017) <<https://www.statista.com/statistics/247280/number-of-bitcoins-in-circulation/>>.

There could be a number of reasons why the number of Bitcoin is capped, but mainly it may include that Bitcoin is meant to only have value for a certain period of time before it becomes devalued.³² This is a key point to consider when taking into account regulation of Bitcoin within Australian consumer laws.

As soon as Bitcoin have been processed through the mining process, that circulation is captured onto a Blockchain system in order to trace the amount of Bitcoin in circulation. However, there is a difference between Bitcoin and Blockchain in that the Blockchain network is not dependent on Bitcoin. Therefore, Blockchain technology is readily available to any consumer to use without acknowledging Bitcoin as a payment system. According to Tyle and Kausai:

The elegance of the Blockchain is that it obviates the need for a central authority to verify trust and the transfer of value. It transfers power and control from large entities to the many, enabling safe, fast, cheaper transactions despite the fact that we may not know the entities we are dealing with.³³

Likewise, Kiviat describes Blockchain as ‘trustless technology’ simply because it is not regulated as traditional payment systems.³⁴ Therefore, as a fast and cheap method for conducting transactions, Blockchain has been in the limelight for the past couple of years and consumers have been taking advantage of using Blockchain technology as a way of doing business, which is centralised on one system.³⁵ Anyone can use Blockchain and all transactions are recorded on a public ledger, which is permanently recorded for all users to see and access.³⁶

In addition to Bitcoin miners and users operating this system, one of the crucial players in the Bitcoin system is a virtual and digital currency exchange platform, also referred to as exchanges. In order for a Bitcoin user to exchange Bitcoin to traditional fiat currency, the exchange must occur through these exchanges. Therefore, the exchanger is ‘a person or entity engaged as a business in the exchange of virtual currency for real currency, funds, or other forms of virtual currency and also precious metals, and vice versa, for a fee (commission)’.³⁷ With

32 T.S, ‘How does Bitcoin Work?’, *The Economist* (online), 11 April 2013 <<http://www.economist.com/bitcoinexplained>>.

33 Sheel Tyle and Mohit Kaushal, *The Blockchain: What It Is and Why It Matters*, (13 January 2015) Brookings <<https://www.brookings.edu/blog/techtank/2015/01/13/the-blockchain-what-it-is-and-why-it-matters/>>.

34 Trevor Kiviat, ‘Beyond Bitcoin: Issues in Regulating Blockchain Transactions’ (2016) 65 *Duke Law Journal* 569, 574.

35 Tyle and Kaushal, above n 33.

36 Kevin Petrasic and Matthew Bornfreund, *Beyond Bitcoin: The Blockchain Revolution in Financial Services* (7 March 2016) White & Case <<http://www.whitecase.com/publications/insight/beyond-bitcoin-blockchain-revolution-financial-services>>.

37 FATF, above n 13, 7.

the increase and popularity of Bitcoin in some communities, it is essential for consumers, whether individuals or businesses, to make use of these exchanges in order to receive traditional fiat currency or invest their Bitcoin with other Bitcoin users. The use of exchanges is therefore a vital player that enables individuals or businesses to buy or invest in Bitcoin.³⁸

Furthermore, digital currencies like Bitcoin, and to some extent other digital currencies or so-called coins such as Ethereum, Neo, Litecoin and Ripple,³⁹ are used to trade for investment purposes. Therefore, platforms are created for each of these digital coins where consumers may enter the virtual and digital currency market and trade or invest their digital coins. In a similar fashion to traditional Initial Public Offerings (IPOs) where individuals or businesses invest in public listed exchanges, digital coins like Bitcoin, Ethereum and Neo run on an Initial Coin Offering (ICO) network where consumers may invest and/or trade their traditional currency for these digital coins in order to get a return on investment. However, unlike IPOs that are regulated through the Australian Securities and Investment Commission (ASIC) standards,⁴⁰ ICOs are not regulated due to their decentralised nature. The unregulated nature of ICOs, as vital players in the decentralised network, may cause concern for some consumers because of possible misleading and unconscionable conduct by these ICOs, and further conduct by exchanges. Therefore, it is essential to focus on the predicaments Bitcoin as a payment system may cause when buying, selling or investing in digital currencies without the suitable regulatory measures in place.

III THE PREDICAMENTS WITH THE USE OF BITCOIN

A *Irreversibility of Bitcoin transactions*

One of the primary concerns with the use of Bitcoin is the limited protection to consumers because of its irreversibility characteristic.⁴¹ Due to the anonymity and privacy of Bitcoin, the transactions are irreversible, which indicates that once

38 Chris Pash, 'Here's Where You Can Spend Bitcoin in Australia, And What You Can Buy', *Business Insider Australia* (online), July 2014 <<http://www.businessinsider.com.au/where-to-spend-bitcoin-in-australia-2014-7>>. Some of the businesses include Forsyth Real Estate, Hero Subs and The Little Mule. Some businesses have also offered to pay their employees in Bitcoin and accordingly get taxed as set out by the Australian Tax Office.

39 More recent digital currencies include Iota, OmiseGo and Bitcoin Cash.

40 John Price, 'Going Public' *Australian Securities and Investment Commission* (May 2015) <<http://asic.gov.au/regulatory-resources/corporate-governance/corporate-governance-articles/going-public/>>.

41 See Primavera De Filippi, 'Bitcoin: A Regulatory Nightmare to a Libertarian Dream' (2014) 3(2) *Internet Policy Review* 286.

a payment has been made into an incorrect Bitcoin wallet account, there will be no charge back as with traditional banking transactions such as credit card transactions. Moore and Christin explain that ‘irrevocability makes any Bitcoin transaction involving one or more intermediaries subject to added risk, such as if the intermediary becomes insolvent or absconds with customer deposits’.⁴² This is an important aspect to consider as many individuals and businesses use Bitcoin as a form of payment and need to be made aware of the risks and consequences relating to this issue. In this regard, the Financial System Inquiry made the following observation:

Technological innovation has the potential to improve financial system efficiency. It is a powerful force for competition, driving the development of products that better meet consumer needs and improve access. Firms can harness technologies to improve risk management and other internal processes. Although innovation has many benefits, it may also bring risks. Government must manage these risks, while enabling the benefits of innovation to flow through the system.⁴³

Therefore, consumer protection plays a vital role when dealing with Bitcoin transactions and making consumers aware of the risks, such as irreversibility, when using this type of payment system. Information regarding consumer and business protection and the use of Bitcoin as an alternative method of payment to buy and sell goods or of use for investment purposes, should be provided through agencies such as ASIC and the Australian Competition and Consumer Commission (ACCC).

One concern in relation to the use and acceptance of Bitcoin through exchanges or ICOs is whether consumers have some recourse against misleading and unconscionable behaviour by the exchanges and/or ICOs due to the lack of charge-back activities. This was one of many concerns relating to the Mt. Gox collapse in 2014–2015. Mt. Gox was one of the largest exchange platforms before its collapse and dealt with 80 per cent of the Bitcoin transactions globally.⁴⁴ However, Mt. Gox, which was operated and owned by Mark Karpeles, filed for bankruptcy in 2014 because of an alleged hacking incident within Mt. Gox.⁴⁵ This incident caused

42 Derek Dion, ‘I’ll Gladly Trade You Two Bits on Tuesday for a Byte Today: Bitcoin, Regulating Fraud in the E-Economy of Hacker-Cash’ (2013) *University of Illinois Journal of Law Technology and Policy* 165, 168. See also Matt Rosoff, ‘This Investor Thinks Bitcoin Will Change EVERYTHING-Not Just Finance’, *Business Insider Australia* (online), December 2014 <<http://www.businessinsider.com.au/how-bitcoin-could-change-everything-not-just-finance-2014-12>>.

43 Financial System Inquiry, *Regulation in a Digital Environment* (2014) <<http://fsi.gov.au/publications/interim-report/09-technology/regulation-digital-environment/>>.

44 Aaron Lindquist, ‘Funny Money: Why Bitcoin does not Warrant Increased Governmental Regulation’ (2015) 1 *Regent Journal of Global Justice and Public Policy* 79, 83.

45 Brett Wolf and Emily Flitter, Mt Gox: *The Brief Reign of Bitcoin’s Top Exchange* (28 February 2014) Reuters <<http://www.reuters.com/article/us-bitcoin-mtgox-insight-idUSBREA1R06C20140228>>.

Mt. Gox to lose approximately 750 000 Bitcoin, amounting to more than \$450 million.⁴⁶ The impact on Bitcoin users, as consumers buying and selling Bitcoin on this platform, was immense because, as mentioned, one of the disadvantages of using Bitcoin is that these transactions are irreversible and cannot be refunded. Therefore, the risks and consequences associated with using exchanges and ICOs as a means to facilitate transactions between Bitcoin and traditional currency need to be scrutinised.

After the failure of Mt. Gox, numerous other exchange platforms started making their announcement to the Bitcoin community, especially in releasing information about exchange rates. These exchanges include, but are not limited to, Bitcoin Watch, which provides information on currency exchange values on Bitcoin; Bitcoin Block Explorer, which enables the user to search transactions used for a certain address; and Bitcoin Mail, which allows users to send Bitcoin via email.⁴⁷ These exchanges, and in a similar limelight ICOs, are increasing in number and providing consumers with insufficient information on chargeback of transactions. This may raise some concern as to the nature of the information provided to consumers and the protection afforded under Australian law.

B Ebb and flow of bitcoin transactions

One distinctive feature of Bitcoin transactions is the ebb and flow of rates and valuations on a day-to-day basis. Unlike the value of an AUD \$10 note, Bitcoin do not have a set currency value assigned to them as a payment system. This means that Bitcoin exchange rates have an ebb and flow cycle.⁴⁸ This potentially becomes difficult when a consumer aims to store or invest Bitcoin, as the exchange rates fluctuate due to the volatility of the Bitcoin markets.⁴⁹ This further raises concerns for consumers and whether Bitcoin should be specifically regulated.⁵⁰ Even though Bitcoin payments are being used more because of their private and anonymous characteristics, the ebb and flow of the value attached to Bitcoin is considered a vulnerability when compared to traditional payment systems such as credit card payments.⁵¹

46 David Chuen, *Handbook of Digital Currency: Bitcoin, Innovation, Financial Instruments and Big Data* (Academic Press, 2015) 263.

47 Grinberg, above n 5, 167. See also Virtual Currency Exchange <<http://virtual-currency-exchange.com/virtual-currency-exchange/>>.

48 Jeremy Papp, 'A Medium of Exchange for an Internet Age: How to Regulate Bitcoin for the Growth of E-Commerce' (2015) 15 *Pittsburg Journal of Technology Law and Policy* 33, 38-39.

49 See Joon Wong, China's Market Dominance Poses Questions About Global Bitcoin Trading Flows (2014) Coindesk <<http://www.coindesk.com/chinese-markets-dominance-poses-questions-global-bitcoin-trading-flows/>>.

50 See also Bob Swarup, *Why Bitcoin is Fated for Boom and Bust* (2014) Coindesk <<http://www.coindesk.com/bitcoin-fated-boom-bust/>>.

51 Kaye Scholer, *An Introduction to Bitcoin and Blockchain Technology* (February 2016) <<http://www.kayescholer.com/docs/IntrotoBitcoinandBlockchainTechnology.pdf>>

Even though Bitcoin has been increasingly used by businesses and consumers as a payment method,⁵² the fact that Bitcoin is not accepted as legal tender by governments indicates that not all consumers are in a position to put their trust in these transactions, which can lead to it being a poor and unstable currency.⁵³ The main issue with acceptability of Bitcoin is that the identities of the users are not made known, which means that traditional banking institutions still remain the most preferred avenue through which transactions are done.⁵⁴ Therefore, businesses and consumers who do not have Bitcoin accounts are not obliged to accept it as payment from someone who is using it as an alternative payment method.

It is worthwhile to note, as mentioned above, that Bitcoin is also popular as an investment type scheme, despite it being used in daily activities; however, investors should be aware of the changing nature of Bitcoin's exchange rate.⁵⁵ Furthermore, the Finance Discipline Group at the University of Technology in Sydney indicated that Bitcoin is more appreciated within an investment sphere rather than a currency or 'medium of exchange'.⁵⁶ Therefore, selected Bitcoin advocates, like the Finance Discipline Group, argue that Bitcoin is not a threat because it is used as an investment rather than a means of payment. However, the volatile status of Bitcoin may influence the stability of Bitcoin as a regulated legal currency when focusing on consumer laws.

IV AUSTRALIAN CONSUMER PROTECTION WITHIN BITCOIN TRANSACTIONS

A Overview

Virtual and digital currencies (Bitcoin), as mentioned, have unique characteristics, such as being private, anonymous and decentralised, which indicates the complexities these currencies may present for regulatory purposes. Furthermore, decentralised Bitcoin currencies may present some difficulty under the ACL when buying, selling or investing Bitcoin through online exchanges or ICOs. Therefore,

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- 52 Stanford University, Disadvantages of Bitcoin: Decentralized, Peer-to-Peer, Cryptocurrency (November 2010) <<http://cs.stanford.edu/people/eroberts/cs201/projects/2010-11/DigitalCurrencies/disadvantages/index.html>>.
- 53 Ibid. See also Tyler Durden, *Bitcoin Crashes, Loses Half of its Value in Two Days* (7 December 2013) Zero Hedge <<http://www.zerohedge.com/news/2013-12-07/bitcoin-crashes-loses-half-its-value-two-days>>.
- 54 Olujoke Akindemowo, 'The Fading Rustle, Chink and Jingle: Electronic Value and the Concept of Money' (1998) 21 *University of New South Wales Law Journal* 466, 481.
- 55 Catherine Martin Christopher, 'Why on Earth do People Use Bitcoin?' (2015) 2 *Business and Bankruptcy Law Journal* 1, 3-4.
- 56 Finance Discipline Group, Submission 7 to the Senate Economics References Committee, *Inquiry into Digital Currency*, December 2014, 12 <http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Economics/Digital_currency/Submissions>.

this part will focus on whether the ACL under the Competition and Consumer Act 2010 (Cth) is formulated in a way that may apply to Bitcoin transactions. This section will specifically pay attention to false and misleading information as well as unconscionable conduct by exchanges and ICOs to consumers who purchase or exchange their Bitcoin, whether for investment purposes or traditional buying or selling of Bitcoin as a ‘good’.

B Australian Consumer Law (ACL)

The ACL is a subdivision of the *Competition and Consumer Act 2010* (Cth) and the key consumer protection regime across Australia.⁵⁷ The ACL was introduced in order to regulate major prohibitions such as misleading and deceptive conduct,⁵⁸ unconscionable conduct⁵⁹ as well as unfair contract regimes⁶⁰ between businesses and consumers.⁶¹ These provisions specifically deal with prohibiting established financial providers from dealing with consumers in a misleading and unconscionable way. When applying the ACL provisions to everyday transactions and investment arrangements, it can be applied positively in order to prohibit misleading and unconscionable behaviour towards consumers. Therefore, the question is whether the ACL applies to consumers who buy and sell Bitcoin as a ‘good’ as well as for trading or investment purposes.

As indicated earlier, Bitcoin present distinct characteristics and features as a payment system and therefore considered a digital asset controlled by the Bitcoin user through their private key. In 2014, the Australian Taxation Office (ATO) characterised Bitcoin as an asset and property but not money for tax purposes.⁶² This description of Bitcoin will apply throughout this section as a digital asset and property of the consumer. As a result of the nature of Bitcoin as a digital asset, the players within the Bitcoin system are not bound by express terms in a contract, as with traditional bank-customer contractual relationships, but rather rules and procedures agreed upon by the parties in a Bitcoin transaction.⁶³ Moreover, traditional financing

57 *Competition and Consumer Act 2010* (Cth) sch 2.

58 *Ibid* s 18.

59 *Ibid* s 21.

60 *Ibid* s 23.

61 Australian Commonwealth Government, ‘The Australian Consumer Law: A Framework Overview’ (July 2013) <http://consumerlaw.gov.au/files/2015/06/ACL_framework_overview.pdf>.

62 Australian Taxation Office, ‘Tax Treatment of Crypto-currencies in Australia – Specifically Bitcoin’ (18 December 2014) <<https://www.ato.gov.au/General/Gen/Tax-treatment-of-crypto-currencies-in-Australia---specifically-bitcoin/>>.

63 Rhys Bollen, Submission 46 to the Senate Economics References Committee, *Inquiry into Digital Currency*, November 2014 <http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Economics/Digital_currency/Submission>. In addition, see Russ Marshall, ‘Bitcoin: Where Two Worlds Collide’ (2015) *Bond Law Review* 89.

companies (who are in the business of exchanging money) perform on the basis of a contractual relationship expressing the rights and responsibilities between the parties and are dependent upon this.⁶⁴ Specifically, legislation provides that finance companies are prohibited from displaying misleading and unconscionable behaviour towards consumers.⁶⁵ Despite this, it is arguable that the law applying to finance companies and consumers may be applicable to the conduct of exchanges or ICOs towards Bitcoin users (as consumers). This application of the law and the regulation thereof is a good example of the relationship between ASIC and the ACCC in relation to regulating behaviour of companies, in particular finance companies, towards consumers. Therefore, ASIC and the ACCC will play a fundamental role in the management of behaviour and prohibited conduct by exchanges and ICOs.

The operation of Bitcoin networks and the parties involved are valuable considerations for consumer law purposes because, even though there is no third-party issuer (bank) issuing the value between the Bitcoin user and exchanges, it is not necessary for these exchanges and/or ICOs to have 'consumer product disclosures' when buying or selling Bitcoin or any other coins associated with digital currencies.⁶⁶ Therefore, exchanges and ICOs are in a position to provide consumers with as much information, at their discretion, without detailing the risks and charges for a Bitcoin transaction or investment.⁶⁷ This discretion is what may possibly lead to misleading and unconscionable behaviour by exchanges and ICOs in their dealings with Bitcoin consumers.

When ICOs or exchanges accept and take control of a user's Bitcoin, consumer protection provisions such as misleading and deceptive behaviour as well as unconscionable conduct under the ACL play an important role within this agreement. The challenge with identifying this behaviour by exchanges and ICOs towards Bitcoin consumers is whether all Bitcoin transactions will be caught under the ACL provisions.

64 *Australian Securities and Investment Commission Act 2001* (Cth).

65 *Ibid* ss12CA, 12CB, 12DJ.

66 See specifically *Corporations Act 2001* (Cth) pt 7.6.

67 Additionally, see Lynden Griggs, 'Consumer Protection and Stored Value Facilities' (2009) 9 *Queensland University of Technology Law and Justice Journal* 198.

C Bitcoin and consumer regulation in Australia

Currently, there is no specific legislation dealing with the use of Bitcoin and its effects on consumers when buying, selling or investing Bitcoin. In 2015, the Federal Government considered the nature and impact of digital currencies on transactions in Australia and only made proposals to possible regulation in future.⁶⁸ Therefore, it is required to consider the possible effects of misleading and unconscionable conduct by exchanges and ICOs when Bitcoin consumers purchase, sell or invest with digital currencies.

As a result of the lack of legislation dealing with Bitcoin under consumer laws, it is essential to consider whether Bitcoin is considered a ‘good’ under the ACL, and if so, whether misleading and unconscionable behaviour by exchanges and ICOs fall within the statutory provisions of the ACL. Section 2 of the ACL defines a ‘good’ as:⁶⁹

- (i) ships, aircraft and other vehicles; and
- (ii) animals, including fish; and
- (iii) minerals, trees and crops, whether on, under or attached to land or not; and
- (iv) gas and electricity; and
- (v) computer software; and
- (vi) second-hand goods; and
- (vii) any component part of, or accessory to, goods.

Taking into account the items mentioned under s 2 of the ACL, it is broad enough to include Bitcoin and other digital currencies, through Blockchain software, to be considered a ‘good’. Furthermore, the definition of ‘consumer goods’ should also be taken into account and provides that it includes ‘goods that are intended to be used, or are of a kind likely to be used, for personal, domestic or household use or consumption’.⁷⁰ Applying this definition to Bitcoin consumers, the types of goods should include personal, domestic and household goods when using Bitcoin as a method of payment. Therefore, most goods will fall within this definition, but consumers who use Bitcoin for trading purposes, should be alerted that trading may fall outside this definition if it is used for business purposes.

Furthermore, ICOs and exchanges may exploit and take advantage of Bitcoin users by providing Bitcoin consumers with misleading and deceptive information under the ACL which is prohibited. Misleading and deceptive conduct provides

68 Parliament of Australia, The Senate, Economics References Committee Report, *Digital Currency – Game Changer or Bit Player* (August 2015) <http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Economics/Digital_currency/Report>.

69 *Competition and Consumer Act 2010* (Cth) sch 2 s 2.

70 *Ibid.*

that ‘a person must not, in trade or commerce, engage in conduct that is misleading or deceptive or likely to mislead or deceive’.⁷¹ This is an important aspect to consider because Bitcoin users may be seriously influenced by the advertisements and information offered by ICOs and exchanges as a means to invest or purchase Bitcoin. Once the ICO or exchange has control of a user’s Bitcoin, their conduct may lead to misleading the Bitcoin consumer of the risks and consequences of investing or purchasing of Bitcoin that, in turn, may lead to unrealistic expectations and ultimately circumstances of financial detriment.⁷² This may result in considerable damage to the Bitcoin user because digital currencies, like Bitcoin, may be lost as in the case of the Mt. Gox debacle.⁷³

On the other hand, the ACCC warned that Bitcoin users who choose to use Bitcoin as a form of payment, whether for purchasing or investment purposes, are taking a risk and forming agreements on a ‘buyer’s risk’ basis. The ACCC stated that ‘we cannot wrap people up in cottonwool. They may be taking risks with the full knowledge that what they are doing has risk associated with it’.⁷⁴ Therefore, Bitcoin consumers should be mindful of warnings, disclosures and qualifications that provide information on the risks and consequences of using Bitcoin to purchase goods or services as well as for investment purposes. However, if there are no warnings and disclosures present on the website or advertisements of the ICO or exchange, it is possible that Bitcoin users may be misled as to the information provided when dealing with digital currencies. In *Australian Competition and Consumer Commission v TPG Internet Pty Ltd*,⁷⁵ it was stated that a business referring the consumer to another website to receive further information is not sufficient to defeat a misleading and deceptive claim.⁷⁶ This is supported by other industry-led leaders who submit that ‘online exchanges and ATMs should be required to issue warnings about the risks involved in the digital currency space, including the potential for scams and financial loss and the irreversibility of transactions’.⁷⁷

71 Ibid sch 2 s 18(1).

72 See, eg, Lawrence Trautman and Alvin Harrell, ‘Bitcoin versus Regulated Payment Systems: What Gives?’ (2017) *Cardozo Law Review* 1041.

73 See also Patrick Collins, ‘Bitcoin Investors Could Lose all their Money, FCA Warns’ *The Guardian* (online), 12 September 2017 <<https://www.theguardian.com/business/2017/sep/12/cryptocurrency-investors-bitcoin-could-lose-money-fca-warns>>; Nicholas Giurietto, Launch of Australian Digital Currency Industry Code of Conduct (24 February 2016) *Coindesk* <<https://www.coindesk.com/press-releases/launch-australian-digital-currency-industry-code-conduct/>>.

74 Senate Report, above n 68, 42.

75 [2011] FCA 1254.

76 Ibid [108].

77 Senate Report, above n 68, 42.

In order to fulfil requirements under the ACL, in relation to misleading and deceptive behaviour, ASIC provides some guidance to businesses in reducing misleading conduct towards consumers.⁷⁸ These guidelines apply similarly to ICOs and exchanges entering into agreements with Bitcoin consumers. They include:

- (i) consistency of use of certain terms relating to Bitcoin transactions;
- (ii) clarity of warnings and disclosures on websites and advertisements;
- (iii) realistic figures of fees and/or costs associated with Bitcoin transactions; and
- (iv) transparency of terms, conditions and risks.⁷⁹

These guidelines form an important part in the control of ICOs and exchanges, especially in circumstances where a statement was made that the Bitcoin consumer will not receive a refund under any circumstances.⁸⁰

In a similar light, it is possible that ICOs and exchanges are prohibited under the ACL to act unconscionably towards Bitcoin consumers when receiving Bitcoin as a payment for goods or services as well as keeping Bitcoin as an investment for that particular user. Under the ACL, unconscionable conduct refers to where ‘a person must not, in trade or commerce, engage in conduct that is unconscionable, within the meaning of the unwritten law from time to time’.⁸¹ This is an important consideration within Bitcoin transactions as ICOs and exchanges may cause an imbalance in the relationship when Bitcoin is used as a method of payment. In order to invest, trade or buy in Bitcoin or other digital currencies, ICOs and exchanges do provide ‘white papers’ or ‘terms of service’ when purchasing, selling or investing in these digital currencies.⁸²

In order to consider whether unconscionable conduct has taken place between a business and consumer based on the information provided in the ‘white paper’ or ‘terms of service’, the court may take the following factors into account under the ACL:

78 Australian Securities Investment Commission, ‘Advertising Financial Products and Services (including credit): Good Practice Guidance’ (November 2012) <<http://download.asic.gov.au/media/4496584/rg234-published-27-september-2017.pdf>>.

79 Ibid 7-8.

80 Similar circumstances were found in the case of *TPC v Radio World Pty Ltd* (1989) ASC 55-929.

81 Competition and Consumer Act 2010 (Cth) sch 2 s 21.

82 See Laura Shin, *Bitcoin White Paper By Consumers’ Research Explores Blockchain Opportunities And Obstacles* (22 January 2016) Forbes <<https://www.forbes.com/sites/laurashin/2016/01/22/bitcoin-white-paper-by-consumers-research-explores-blockchain-opportunities-and-obstacles/#3e2f6b9f68d8>>; Benjamin Vitaris, *Joint Report by Stellar and Luxembourg Fintech Platform: Approach ICOs with Caution* (20 September 2017) Bitcoin Magazine <<https://bitcoinmagazine.com/articles/joint-report-stellar-and-luxembourg-fintech-platform-approach-icos-caution/>>.

- (i) the bargaining strengths of the parties;⁸³
- (ii) consumer complying with conditions not necessary for the transaction;⁸⁴
- (iii) whether the consumer was made aware of the terms in the contract;⁸⁵ and
- (iv) whether undue influence was exerted upon the consumer to enter into a transaction.⁸⁶

Therefore, the unconscionability provisions under the ACL may assist a Bitcoin consumer in identifying whether advantage was taken by the ICO or exchange in providing agreements that set out unfair terms and conditions.⁸⁷

However, it is possible for the ICO or exchange to argue that a particular term or condition was implied within the ‘white paper’ or ‘terms of service’ as a result of the type of agreement between the parties. In order to claim that implied terms did exist, *BP Refinery (Westernport) Pty Ltd v Shire of Hastings*⁸⁸ found that for a term to be implied it must:

- (i) be reasonable and equitable;
- (ii) give business efficacy to the contract;
- (iii) be obvious that ‘it goes without saying’;
- (iv) be clearly expressed; and
- (v) not contradict any express terms in the contract.⁸⁹

These requirements apply rigidly when the document represents all of the terms within an agreement.⁹⁰ These elements may similarly apply to agreements between ICO, exchanges and Bitcoin consumers.

Taking into account the factors under s 21 of the ACL as well as other relevant considerations by the court and applying it to a Bitcoin transaction scenario, it may be hard for the court to consider the bargaining strengths of the parties because there is no or limited information between the ICO or exchange and the Bitcoin user because of its online nature. Also, as mentioned above, the making available of information through ‘white papers’, ‘terms of service’ or ‘consumer product disclosers’ is subject to the ICO or exchange.

As a result of the distinct characteristics of Bitcoin and its volatile status as a payment method, regulation thereof is unclear. The unregulated nature of digital currencies makes it difficult for Bitcoin consumers to be protected under specific

83 Ibid s 21(2)(a).

84 Ibid s 21(2)(b).

85 Ibid s 21(2)(c). See also Euripides Rizos, ‘The Consumer’s Right of Withdrawal in case of Payment with Bitcoins’ (2016) 1 *Oslo Law Review* 1.

86 Ibid s 21(2)(d).

87 *Australian Competition and Consumer Commission v Lux Distributors Pty Ltd* [2013] FCAFC 90.

88 (1977) 180 CLR 266.

89 Ibid 283.

90 See, eg, *Codelfa Construction Pty Ltd v State Rail Authority of NSW* (1982) 149 CLR 337.

legislation, including the *Sale of Goods Act 1895* (WA) and other financial system legislation.⁹¹ However, the Competition and Consumer Act may be available to Bitcoin consumers when claiming misleading and unconscionable conduct by ICOs and exchanges.⁹² The applicable provisions for misleading and unconscionable conduct is broad enough to include protection to Bitcoin consumers; however, this may be limited where Bitcoin is used for purposes other than those made provision for under the ACL. This article argues that with applicable amendments to the ACL, users of Bitcoin can be provided protection when entering into Bitcoin transactions with ICOs and exchanges. This will ensure development of Bitcoin as an alternative method of payment in this digital age and the benefits it provides to consumers and businesses while protected under the ACL.⁹³

V CONCLUSION

Virtual and digital currencies such as Bitcoin have gained popularity and are viewed as a 'revolutionary payment system' for consumers and businesses.⁹⁴ However, as discussed in this paper, and agreeing with Grimmelmann, the development of technology, and in particular Bitcoin, has given rise to legal challenges of such a payment system in relation to protection for consumers and businesses using Bitcoin for buying, selling, or investment purposes.⁹⁵ Bitcoin has developed into an alternative method of payment that has shown many benefits as a payment system for consumers, but it is also challenging because of its unregulated status, as legal tender. Furthermore, the fact that Bitcoin consumers elect to use Bitcoin as a means to buy or sell goods or services, or simply to invest, should not preclude parties in a Bitcoin agreement from using appropriate measures to deal with conduct under the terms and conditions set out by this agreement.

This paper further examined the legal status of misleading and deceptive conduct as well as unconscionable conduct by ICOs and exchanges towards Bitcoin consumers. Although there is no specific legislation dealing with this type of behaviour towards Bitcoin consumers when using Bitcoin as a method of payment

91 This may include protection to consumers under the ePayments Code and Financial Ombudsman Services.

92 *Competition and Consumer Act 2010* (Cth) sch 2.

93 See Louise Parsons, 'Bitcoin: Consumer Protection and Regulatory Challenges' (2016) 27(3) *Journal of Banking and Finance Law and Practice* 184.

94 Stephan Small, 'Bitcoin: The Napster of Currency' (2015) 37 *Houston Journal of International Law* 581, 640.

95 James Grimmelmann, 'Anarchy, Status Updates, and Utopia' (2014) 35(1) *Pace Law Review* 135, 135.

or investment, the ACL makes provision for Bitcoin consumers to bring a claim under ss 18 and 21 of the ACL. Therefore, even though there is no existing authority for the operation of misleading and unconscionable conduct within Bitcoin transactions, it does not preclude these types of agreements from falling within the ambit of the ACL.

ICOs and exchanges who deal with Bitcoin users need to be aware of their conduct when entering into an agreement with the user as they may be subject to the provisions under the ACL. Therefore, ICOs and exchanges are advised to follow the guidelines set out by ASIC when disclosing important information to Bitcoin consumers on the use of Bitcoin within the transaction. In conclusion, the use of Bitcoin as a digital asset in transactions for buying, selling and investing should be clearly publicised by governmental agencies like the ACCC, ASIC and ATO through guiding principles on their websites and other resources such as training and education on the use of digital currencies as a payment method and the risks it involves. Specific legislation in consumer protection is not necessary; however, the adaptable nature of Bitcoin makes it possible that the *Competition and Consumer Act 2010* (Cth)⁹⁶ be amended to include Bitcoin transactions as a consumer transaction in order to narrow the scope of misleading and unconscionable conduct by ICOs and exchanges.

96 *Competition and Consumer Act 2010* (Cth) sch 2.