

## Conceptual Research : Sharia-Based Cryptocurrency

**R. A. E. Virgana<sup>1</sup>, Parlindungan Harahap<sup>2</sup>, and Tezza Adriansyah Anwar<sup>3</sup>**

<sup>1,2</sup>*IS Department, Faculty of Engineering, University of Widyatama, Indonesia*

<sup>3</sup>*School of Business and Management, University of Widyatama, Indonesia*

*rae.virgana@widyatama.ac.id; parlindungan.mt@widyatama.ac.id;*

*tezza.anwar@widyatama.ac.id*

**Abstract:** Islam is the religion of rahmatan lil 'alamin / Al Anbiya: 107, bringing blessings and welfare to the whole universe, all Moslem majority states, hoping its country is "thayyibatun wa rabbun ghafur [A good land [have you], and a forgiving Lord] / Saba': 15". The number of Moslems around the world is around 1.6 billion, about 24% of the world's total population, 31% are in southern asia, 22% in southeastern Asia, 47% spread around the world. The country with the world's highest gross domestic product (at purchasing power parity [PPP]) is Qatar, Brunei is the 4th, 5th place in Kuwait, 8th place in United Arab Emirates, 12th place in Saudi Arabia, and Bahrain ranks 14, 10 Countries with the largest oil reserves in the world, 9 Countries are in the majority Moslem countries, 17 Largest oil producing countries in the world, 10 Countries are in Moslem majority countries, from 228 Countries with Moslem, 76 countries has more than 10% of the population of the country. These are the facts that Allah SWT has given His mercy to us the major Moslem states, fertile lands, prosperous countries, rich countries, but why most Moslems in Moslem countries are not prosperous. There are many reasons for this, mismanagement of the land, misinformation of the economy, fragile monetary system, inexhaustible debt, those who consume interest (na'siah and fadhl) rampant, greed, corruption, wealth and uneven prosperity. The concept of sharing, wealth and prosperity among Moslem countries, not a new concept has ever been implemented by Moslem countries since then, from Andalusia-Spain to the far east, has a similar economic concept model, one of them is not consume interest. In this preliminary research the researcher proposes a conceptual research: sharia-based cryptocurrency, hopefully bring goodness of wealth and prosperity for the good of the world and the hereafter.

**Keywords :** sharia, monetary system, economic system, cryptocurrency

### INTRODUCTION

The main objective of this research is to find the best concept for sharing wealth and prosperity among moslem countries. Some of the major concepts in Islamic economics are not to consume interest on loans (whether usury na'siah and fadhl), not to hoard wealth, not to stockpile consumer goods, should not withstand production rates in bad faith, the occurrence of declining asset value sharp, prices are rising uncontrollably. Currencies of low value, unstable and very weak compared to other currencies. Sharing prosperity and justice, not to be equal but narrowing the space between the poor and the rich.

The scope of the research is how to create economic concepts and models that can maintain the value of the currency, remain stable and strong compared to other currencies. Without consuming interest rate loans (riba) both na'siah and fadhl, create a monetary system that is integrated and mutually reinforcing, not mutually dropping. This research is still a preliminary research, the research methodology used is conceptual research, will discuss various concepts and ideas, from various literature, whether ever done in past or never done, and will be synthesized into new solution with technology of mass now.

In this paper will also be described the concept of cryptocurrency technology system, the basis of information technology model is called blockchain, this technology is not a new thing has been the last few decades, a model of distributed system is reviewed and developed. In recent years this technology has begun to be used for several digital cryptocurrency assets. Security technology in the financial world today is not new, banking information technology with a variety of ways to access the bank is using cryptography technology, for data security, application security, and security of communications infrastructure.

The end result of the initial study, conceptual research: Shariah-based cryptocurency can expose the awareness of the importance of a strong economic system and beneficial to Moslem countries in particular and globally generally.

## **LITERATURE REVIEW**

Currency (from Central English: curraunt, "circulated", from Latin: currens, -entis) in the most specific use of the word refers to money in any form when using or actual circulation as a means of exchange, especially outstanding. banknotes and coins. A more general definition is that currency is a commonly used money system (monetary unit), especially in a country [1].

Cryptography or cryptology (from Greek κρυπτός kryptós, "hidden, secret"; and γράφειν graphein, "writing", or -λογία -logia, "study", respectively [2]) are practices and technical studies for secure communication . [3]

Shari'a according to the language means the path to the spring. Meanwhile, according to the term sharia means the rules or laws that Allah revealed to regulate human relations with God, regulate human relationships, and the relationship between humans and the universe. Shariah, sharia law, or Islamic law (Arabic: شريعة) is a religious law that forms part of the Islamic tradition. This is derived from the teachings of Islam, especially the Qur'an and Hadith. In Arabic, the term shar'ah refers to the divine law of God which is unchanged and distinguished from fiqh.

The basis of Shari'a is the wisdom and the benefit of man in the world and the Hereafter. This welfare lies in perfect justice, mercy, happiness and wisdom. Whatever transforms justice into oppression, grace becomes difficult, prosperity becomes misery and wisdom becomes ignorance, has nothing to do with the Shari'a (Ibnul Qayyim al-Jauziyyah). The main purpose of the Shari'a is to promote the well-being of people who are in the shelter of their faith, life, mind, ancestry, and wealth. Whatever guarantees the protection of these five matters will satisfy the public interest and desires (Imam Ghazali). [4]

The stability of the currency value becomes one measure of the security of a country's economic and monetary system. A strong and stable currency makes the reference to justice and prosperity in a country, the currency should be a fair measure of scales, there is no sharp decline in value, ...And give full measure and weight in justice.../Al-An'aam:152, ..So fulfill the measure and weight and do not deprive people of their due and cause not corruption upon the earth after its reformation.../Al-A'raf:85.

Cryptocurrency (or crypto currency) is a digital asset designed to work as a medium of exchange that uses cryptography to secure transactions and control the creation of additional units of currency. [5] [6] Cryptocurrency is a digital currency scattered in peer-to-peer networks spread all over the world. This network has a large accounting book called Blockchain that can be accessed by the public, in which recorded all transactions ever made by all users Bitcoin, including balances owned by each user. Peer to Peer is a resource sharing and service technology between one computer and another.

### **METHODOLOGY**

This research is still a preliminary research, the research methodology used is conceptual research, will discuss various concepts and ideas, from various literature, whether ever done in past or never done, and will be synthesized into new solution with technology of mass now.

### **FINDINGS AND ARGUMENT**

Blockchain is an underlying technology for distributed and fully automated information technology network system. This technology offers an automated system for managing and updating data, in a wide and global infrastructure system.

Blockchain systems can form monetary systems that can be used in real in the real world, basically in the financial world of this kind of technology has been implemented for several decades in a closed system.

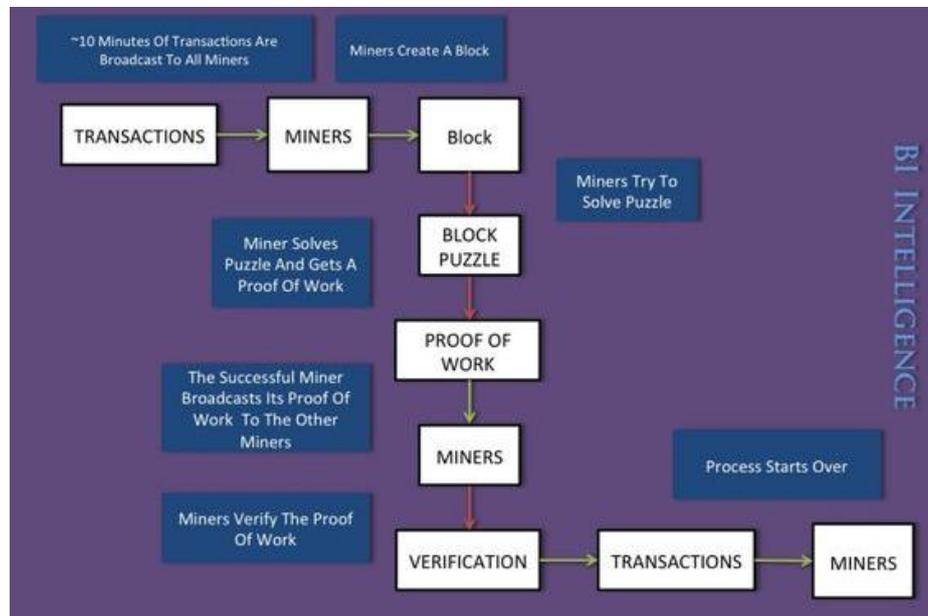
If it will be made in an open system, indeed there have been some cryptocurrencies in this world that are already in operation, almost full automatic way of cryptocurrency system based on this blockchain technology.

Indeed, this technology has two blades, on the one hand, there are parties in this cryptocurrency technology is not willing to be regulated by the state or anyone else in this world, the currency price moves following the direction of demand and supply, it has been 7 years since 2010 the first cryptocurrency bitcoin, noted the price and introduced in the market, the price is no one can control, although literally there are parties with large capitalization can raise and drop the price of one of the oldest cryptocurrency, speculation has occurred many, in 2009 the price is still \$ 0, year 2010 to \$ 0.39, now as of this writing has become \$ 11,738.84 about 156 million rupiah, and at one time in 2017 the price was above 260 million rupiah.

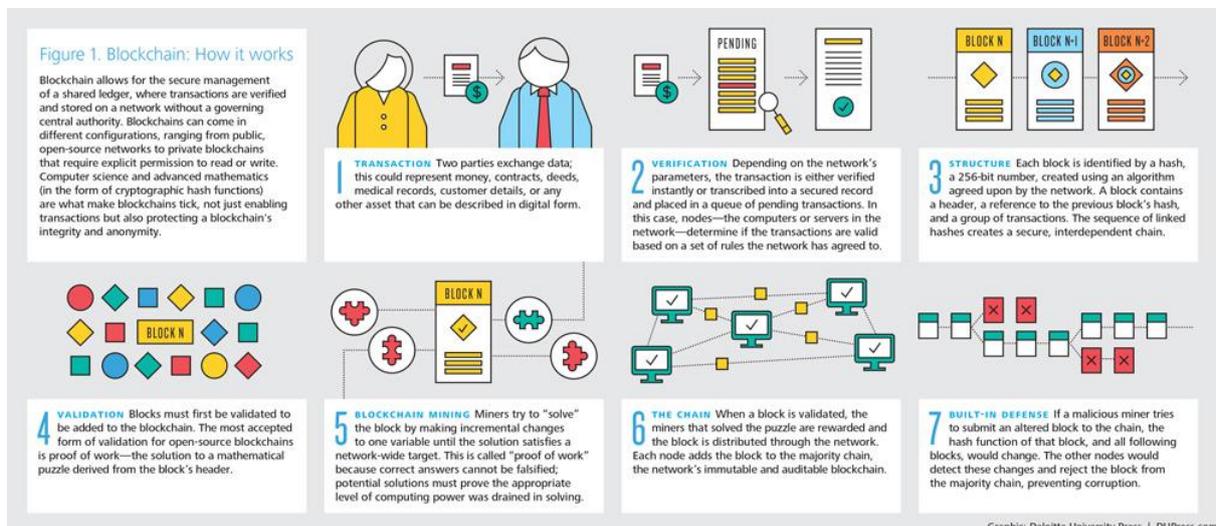
On the other hand, as discussed in the literature, in the Shariah system, justice becomes the main benchmark, proposed in this research, moslem countries remain present in the syariah-based cryptocurrenncy monetary system. State is present in determining the rules in Shariah-based system of cryptocurrency automatically in determining the rules of sharia in it, and

distributed globally within the scope of moslem countries. To protect the parties who will raise or drop the system sharply.

This how The Cryptocurrency Blockchain Works :



How The Cryptocurrency Blockchain Works [7]



How The Cryptocurrency Blockchain Works [8]

Shariah Review - Exchange of commodities [9]. In the hadith of Ubadah bin Shamit radhiyallahu 'anhu, the Prophet sallallahu 'alaihi wa sallam said,

والملاح بالتمر والتمر بالشعير والشعير بالبر والبر بالفضة والفضة بالذهب  
كان إذا شئت تم كيف بيعوا الأصدناف هذه أخذت فإذا يديدا بسواء سواء بمثل مثلاً بالمالح  
ب يديدا

"If gold is bartered with gold, silver is exchanged for silver, the wheat bur (wheat) is exchanged for the wheat bur, the wheat is roughly exchanged for the wheat of the verse, the korma is exchanged with the korma, salt bartered with salt, then the dosage must be the same and cash. If the goods are different dibarterkan then the dosage may be as you please as long as cash "(HR Muslim 4147).

Sharia Review - Exchange of commodities. Of the six objects above ribawi, scholars agree, the goods are divided into two groups:

[1] Group 1: Gold and Silver

[2] Group 2: al-qut al-muddakhar (food that can be stored), Bur, Sha'ir, Dates, & Salt.

Sharia Review - Gold and Silver as currency. We focus more on gold and silver, because this is something to do with the currency.

According to the majority of scholars, Maliki, Shafi'i and Hambali, asserted that the reason for the application of usury to gold and silver because both status as a medium of exchange (tsamaniyah), and as a measure of the value of other properties (qawam al-Amwal). Thus, the use of gold and silver (dinars and dirhams) lies in this function, not only in the intrinsic value of the object. (al-Mughi, Ibn Qudamah, 4/135, as-Syarhul Kabir, Ibn Qudamah, 4/126).

Therefore, affixed with gold and silver, all agreed objects act as currency and exchange instruments. Although the material is not gold and silver. In Tarikh al-Baladziri mentioned,

الآن قرأ من البعير على خشيعة إلا ذلك من منعه وما البعير جلد من النقود

That Umar bin Khattab wanted to make money from camel's skin. But this plan is undone for fear, the camel will become extinct. (Futuh al-Buldan, al-Baladziri)

This is the basis of the scholars, that the currency does not have to be made of gold and silver. Imam Malik once said,

نظرة والورق بالذهب باع أن لكرهتها وعين سكة لهم تكون حتى الجلود ينهم أجازوا الناس أن لو

"Suppose people make money from their skins and are used as a medium of exchange for them, so I forbid the money to be exchanged for gold and silver in a non-cash manner". (Al-Mudawwanah Al-Kubra, 3/90).

Therefore, Shaykh al-Islam says, some scholars say, "Money is an object agreed upon by its users as a means of exchange, even if it is made of a piece of stone or wood". (Majmu' Fatawa, 19/251).

In conclusion, up to this point, the use of shari'a-based cryptocurrencies is permissible, there is no side to the breach, as long as it is legally owned and not through piracy or fraud.

Shariah Review - Cryptocurrency Currency Fatwa. Fatwa may use cryptocurrency such as bitcoin also delivered Fatwa Syabakah Islamiyah - Qatar,

أو، الورقي الشكل غير إلكتروني شكل في عملات الإك ترونية النقود أو، الرقمية فالعملة  
صرفا يعدم تلفة أو الجنس. المع تاد المعندي

Electronic currency is the currency in digital form, unlike paper currency or mine metal currencies, as is commonly circulated. Therefore, buy digital currencies with other different currencies, including sharf transactions (currency transactions). (Fatawa Syabakah Islamiyah no 191641)

Shariah Review - Different Commodity Exchange Tradition. The Prophet sallallahu 'alaihi wa sallam gave the rule for money transactions with money,

هذه اخ تلفة ف إذا ... ب يد يدا ب سواء سواء بم ثل م ثلا ... بال فضة وال فضة بال الذهب  
ب يد يدا كان إذا شد تم ك يف ف ب يعوا الأ صناف

If gold is bartered with gold, silver is exchanged for silver, the quantity must be the same and cash ... If the goods are different dibarterkan then the dosage may be as you please as long as cash. (Muslim 4147)

Sharia Review - Crypto Currency Fatwa. In Fatwa Syabakah Islamiyah, this rule is mentioned,

عند ال تماثل دون وال تقابض، الجنس ات حد عند وال تماثل، ال تقابض من ال صرف في ب د ولا  
حكم ياي كون وقد، حقيقي ياي كون قد وال قبض، الجنس اخ تلاف

In currency transactions, there must be a handover (taqabudh) and the same quantity if the same type. And required to be taqabudh, although may not equal quantity, if different kind. And taqabudh can be done haqiqi (there is money, there is bitcoin that can be held), can also status (hukmi). (Fatawa Syabakah Islamiyah no 251170)

## CONCLUSIONS

In sharia system, justice becomes the main benchmark, proposed in this research, moslem countries remain present in syari'ah-based cryptocurrenncy monetary system. The State is present in setting the rules in the Shariah-based system of cryptocurrency, automatically in determining the rules of sharia within it, and is globally distributed within the scope of the Moslem countries. To protect the parties who will raise or drop the system sharply.

With all the advantages, disadvantages, and sophistication of cryptocurrency technology with its blockchain, it does not diminish the spirit of nationalism of each muslim country. Each holds firmly to the constitution of their respective countries. As has been the case in the past of the glory and prosperity of the Muslim lands, from western Andalusia in Spain to lands in the far east, each caliph or kingdom holds over the control of his own country. But sharing the Shariah economic system among Muslim countries, for the welfare and prosperity together, will never consume interest on loans (whether usury na'siah or fadh1), will never raise and lower prices sharply, will not stop the means of production for bad intentions, will not owe for the unbeneficial to the world and the hereafter, while maintaining the value of the currency at a stable value, there is no loss of decline in the value of the currency in vain and sharp.

Currency cryptocurrency according to the researcher's opinion can be used in the activity muamallah (sell / buy) in sharia, as long as the currency is no element of usury, make buying and selling with ridha and voluntary, without any coercion, object sale (either in the form of goods sale or price / money) is a sacred and useful item, not an unclean item or an unlawful item, because the goods which are forbidden are forbidden for sale, the object of sale and purchase is the right of full property, one can sell goods that are not hers if the permission of the owner of goods, the object of sale and purchase may be handed over, so it is illegal to sell birds flying in the air, selling camels or the like that escape from the enclosure and semisalnya. The object of sale and purchase and the amount of payment is clearly known by both parties so avoid the gharar (fraud and do not know something that is inadmissible in it is not expected there is an element of willingness)

## REFERENCES

- [1] Bernstein, Peter (2008) [1965]. "4-5". A Primer on Money, Banking and Gold (3rd ed.). Hoboken, NJ: Wiley. ISBN 978-0-470-28758-3. OCLC 233484849
- [2] Liddell, Henry George ; Scott, Robert; Jones, Henry Stuart ; McKenzie, Roderick (1984). Leksikon Yunani-Inggris . Oxford University Press.
- [3] Bellare, Mihir; Rogaway, Phillip (21 September 2005). "Pengantar". Pengantar Kriptografi Modern . hal. 10.
- [4] Andy Greenberg (20 April 2011). "Crypto Currency". Forbes.com. Retrieved 8 August 2014.
- [5] Dr. M. Umer Chapra. Sistem Moneter Islam. Gema Insani Press: 2000
- [6] Cryptocurrencies: A Brief Thematic Review. Social Science Research Network. Date accessed 28 august 2017.
- [7] Ustadz Ammi Nur Baits (2016) . Tinjauan Syariah Mata Uang Digital. Dewan Pembina. <https://konsultasisyariah.com/28435-hukum-bitcoin.html>
- [8] How to cryptocurrency blockchain works. <https://i.pining.com/564x/ba/53/85/ba5385c186c0a1f27435cb7dcc3f547c.jpg>
- [9] How to cryptocurrency blockhain works. [https://dupress.deloitte.com/content/dam/dup-us-en/articles/blockchain-applications-and-trust-in-a-global-economy/DUP3039\\_TT16Blockchain\\_Figure1.jpg](https://dupress.deloitte.com/content/dam/dup-us-en/articles/blockchain-applications-and-trust-in-a-global-economy/DUP3039_TT16Blockchain_Figure1.jpg)
- [10] Muhammad Nur Ichwan Moslem (2017). Jual Beli Syariah. <https://Moslem.or.id/222-jual-beli-dan-syarat-syaratnya.html>