Digital Currency Users in Saudi Arabia

Meshal Alhusaynan
Information system department
King Saud University
Riyadh, Saudi Arabia
437106624@ksu.edu.sa

Omer Alrwais
Information system department
King Saud University
Riyadh, Saudi Arabia
oalrwais@ksu.edu.sa

Abstract

With the unprecedented increase in the value of digital currencies, they have attracted the interest of inventors, regulators and researchers. Despite the importance and potential value of digital currencies, scarce research exists about this phenomenon especially in Saudi Arabia. In this article, we seek to understand the behavior of digital currency users in Saudi Arabia. We are interested to find out if the users really understand how the underpinning technology operates, risks involved, ease of using the digital portals to manage their assets, boundary of related regulations and what derives them to use such currency?

I. *Introduction*

Digital currency is a type of intangible money that is only available in the digital form. Digital currencies can be used as a payment method that is available only in electronic form. Transferring the amount of digital currency between different entities or between different users can be done with the technology through smart phone applications, computers and the Internet in general. Digital currency facilitates the process of a borderless transfer and it allows instantaneous transactions.

One of the main uses for digital currency is the ability to purchase goods from the Internet using digital wallets but it is restricted to only some online shops that accept such payments. One of the reasons why the majority of shops still don't accept digital currencies is that they don't have a fixed exchange rate that allows the online merchant to build their revenue model based on it. Another reason why the digital currency base is limited is that the "regulatory framework as well as tax treatments of digital currencies is still evolving. The infrastructure needed to support digital currency is still being determined and developed." [1]. On the other hand, the benefits of digital currencies are numerous most notably the ability "bypass banks or clearing houses" [1], eliminating "intermediaries, process steps and costs related to infrastructure" [1] and quicker flow of funds between parties [1]. Digital currencies bring added value to support e-commerce transactions such as the possibility to transfer payments on time and with minimal transaction cost.

Nasdaq exchange hasn't included digital currencies in its trade yet and is still evaluating the benefits of such a move [8] while locally the Capital Market Authority (CMA) in Saudi Arabia has issued a press release on February 11, 2018 warning investors from investing in digital currencies due to volatility of value and lack of control [9]. Also the Saudi Arabian Monetary Authority (SAMA) issued a similar warning on July 4, 2017 [10] and central banks in the Arabian Gulf have issued similar warnings. There has been also some news that Saudi Arabia and United Arab Emirates (UAE) are thinking about lunching a joint crypto currency [11].

A. Characteristics of digital currency

The main idea of digital currency came to minds on the early 1980s and since that time the following properties have been highlighted as ideal properties of digital currency:

- Digital transactions ensure high level of security by implementing a high-quality encryption.
- Digital currencies support the portability by being independent of any physical location as well as supporting transferability through the network easily.
- Digital currency support the concept of anonymous transaction that states that a transaction is private will be accessible only by the parties involved in the transaction.
- Digital currency does not require having a third party in the payment process. It supports a fully peer-to-peer payment.

Digital currencies support the offline payment where we do not require third party authentication

B. Blockchain VS Bitcoin

Digital currencies rely on blockchain technology to manage transactions. Blockchain follow the concept of a public ledger, where all committed transactions are stored in a chain of blocks [5]. The chain is growing as blocks are continuously appended. Even though Bitcoin is the most known application that implements blockchain, blockchains can be applied into many domains far beyond the financial sector such as in land and property management, healthcare, vehicle registration, supply chain management, insurance management and certification management.

Despite the potential, applications of blockchains face many challenges. The main challenge is scalability. It will be very difficult for a blockchain to work effectively with high frequency trading systems that a currently in place for different reasons. Firstly, the block size is limited to 1MB. Secondly, committed blocks can be added only every 10 minutes. Finally, the network of the blockchain is restricted to only seven transactions per second [2].

Taking into consideration these seven transactions a second threshold in comparison to banks that use credit card transactions. Visa or master card network can processes 150 million transactions a day, on average 1,700 transactions per second. In addition, their capability far surpasses 24,000 transactions per second [4].

Notwithstanding the challenges, blockchain technology is one of the most interesting and promising technologies for the next generation of Internet interaction systems, such as smart contracts as well as public services, security services and internet of things [5].

C. *Bitcoin*

Bitcoin (BTC) is a global Peer-to-Peer currency that solves the double spending problem. In 2009, Bitcoin was launched by a person known as Satoshi Nakamoto (Nakamoto, 2008) who worked on the project alone a couple of years before publishing the code to the public. He disappeared shortly after creating it. One of the main advantages of bitcoin is the lower transaction costs and fees. [3]

II. User Analysis

We have interviewed a convenient sample (relatives, friends, colleagues and social media participants) of digital currencies users in Saudi Arabia and the following questions or concerns were discussed with them.

1- Are they investors or daily traders of digital currencies?
2- Why do they use Bitcoin?
3- What do they think about digital currencies?
4- What problems do they face with digital currencies?
5- Do they perform any mining tasks to collect monetary reward?

90% of the sample interviewed had no idea about the concept of blockchain that Bitcoin runs on. They were just following the trend of buying bitcoins and believing in the rumors that say there is a possibility of selling such currency higher than its current price by 10 or 20 times. 10% out of the sample had explained the blockchain technology correctly and this small percentage has different understanding levels but at least they know how the value of their money is created. Of the sample that understand blockchain, they think that the bitcoin will not continue in the same trend of breaking through summits, but will vibrate in between the current prices and this depends on the usability range of such technology and currency.

80% percent of the investors agreed that process of transacting a bitcoin is complicated. They highlighted that they have spent a long time to find a trading platform. After finding the trading platform there are many steps that you need to follow in order to authenticate as well as validate your account. Those users have clarified that these trading platforms are working together and cheating the traders by not allowing them to deposit money by most of these trading platforms. Let us assume that we have the following two trading platforms A and B. In order to trade in both platforms you have to register in everyone separately (with the necessary fees and authentication process). After the registration you will face a complicated validation process. The investor will be asked to share many formal documents (such as a passport) for this authentication process. A has different set of crypto-currencies than B. A will accept receiving USD from your Visa to buy Bitcoin while B will not allow that. In order to trade in B platform you have to do certain processes :

1- Deposit USD in the first trading platform A
2- Buy Bitcoin against dollar in portfolio A
3- Withdrawal from A platform
4- Copy the address
5- Open the second platform B
6- Click on deposit.
7- Paste the address
8- The currency will be transferred.

One of the main concerns that they highlighted is the security of their personal and financial information in the trading platforms. It is common that in order to buy a bitcoin you need to place your VISA information along with your portfolio in the trading platform, after that you will be able to buy Bitcoin against USD.

Another concern is that there are no Saudi online shops that accept Bitcoin currently. Also no local banks in Saudi Arabia accept or exchange crypto-currencies for Saudi Rial. Majority of the sample agree that the reasons of not using Bitcoin or the other digital currencies by these online merchants is the high level of volatility in the currency.

Based on our investigation, we couldn't locate any company in Saudi Arabia that mines bitcoins (validates transactions for the network by running complicated mathematical calculations in exchange for money). Also none of the individuals in our sample indicated that they performed any mining tasks. Although, there are some individuals in Saudi Arabia who have installed the miner software on their machine and started competing and mining bitcoins, these efforts are only exploratory and to the best of our knowledge no coordinated and professional organizations exists in this business.

Too many countries announced that dealing with digital currency is prohibited, and accordingly banks in these counties stopped transacting with any digital currency. This policy can be seen as a barrier one from one side, but from the other side it is positive to all e-merchants who will get the advantage of such policy because the easiest way for individuals to liquidate their digital currency will be through the e-merchants' goods. Thus there could be an increase in e-commerce transactions purchased by digital currencies for a short period.

The value of digital currencies has a high level of volatility and people are not sure about the future of their investment in digital currency. Therefore, it is logical that when the value of digital currency goes up, investors will try to get out with their earned profit and liquidate their digital assets through many forms some of which is through e-commerce transactions to avoid fees for converting digital currencies to hard currencies (USD or Euros).

One of the advantages of digital currencies is that they follow the peer-to-peer paradigm, which means there is no need to transfer money through a third party (who usually take commission to provide such reconciliation service) thus digital currencies lend them self logically to e-commerce and specifically small merchants.

If digital currencies still remain truly peer-to-peer, then we expect that the number of digital currency transactions will increase as the sellers (e-merchants) will continue providing different discounts for those customers who are not using the third party's reconciliation engine (which usually require an average commission rate up to 2.5% for VISA or MASTERCARD).

III. Conclusion

Crypto-currencies are rarely used in Saudi Arabia. The general feeling of the population in Saudi Arabia towards such currencies is mainly negative (connotated with crimes and criminals). However, that is changing as the value of digital currencies surpasses oil and gold and people start reading about such currencies. Majority of digital currency users in Saudi Arabia are investors seeking to multiply their investment in short periods. Some Saudi's are thinking and considering starting a mining company but they are still analyzing the feasibility of such investment.

References

[1]DigitalCurrency,https://www.techopedia.com/definition/6702/digital-currency, accessed online on November 2017.

[2] Zibin Zheng, Hong-Ning Dai, Block chain challenges and opportunities December 2017

[3] Benjamin Fabian, Tatiana Ermakova , Ulrike Sander , Anonymity in Bitcoin, The user perspective , 2017 research in progress.

[4] Bitcoin vs. Bitcoin Cash: What's the Difference? | Investopedia https://www.investopedia.com, accessed online on November 2017

[5] Marcel Morisse , Cryptocurrencies and Bitcoin: Charting the Research Landscape. 2015

[6] Corina Sas, Design for Trust: An Exploration of the Challenges and Opportunities of Bitcoin Users, Recently published

[7] Evander Smart. Top 10 Countries in which bitcoin is banned. Retrieved 10 June 2016 from https://www.cryptocoinsnews.com/top-10-countries-bitcoin-banned/

[8] Massa, A., Schatzker, E., Nasdaq CEO Says Exchange Is Still Evaluating Bitcoin Futures, Bloomberg Technology, https://www.bloomberg.com/news/articles/2018-01-24/nasdaq-ceo-says-exchange-is-still-evaluating-bitcoin-futures [Accessed February 15, 2018]

[9] CMA press release, https://cma.org.sa/en/MediaCenter/PR/Pages/DC1.aspx [Accessed February 15, 2018]

[10] Saudi Arabian Monetary Authority (SAMA) Twiiter account ,https://twitter.com/SAMA_GOV/status/882190896967692288

[11] Al-Zayani, M., UAE, KSA Consider Issuing Joint Digital Currency, Asharq AlAwsat Newspaper, https://aawsat.com/english/home/article/1112826/uae-ksa-consider-issuing-joint-digital-currency, , December 14, 2017.