

BOON OR A BANE: A QUALITATIVE STUDY TO EXPLORE THE CRYPTOCURRENCY AFFECT THE TRADITIONAL FINANCIAL SYSTEM IN A DEVELOPING ECONOMY

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ABSTRACT

Cryptocurrency is the top trend of the current era. It gained popularity quickly because of its advantages, such as cost-effectiveness, convenience, and secure medium of exchange. However, it suffers from the problem of money laundering, the mining process, and the outflow of the dollar. The current study aims to find cryptocurrency's impact on the traditional financial system. For this purpose, the current research conducted interviews with ten different persons that know the use of cryptocurrency. After making different themes from transcribed data, NVivo software is used to analyze with the help of Word Tag Cloud, Word Tree Map, and Hierarchy Chart of the Word Tree. This study finds that cryptocurrency can be beneficial for the traditional financial system in case of its centralization under proper legislation to avoid money laundering and outflow of the dollar because it is more convenient, cost-effective, and secure than a traditional transaction system.

Keywords: Cryptocurrency, medium of exchange, family food environment, family mealtimes, thematic analysis, Covid-19 pandemic, Pakistan

INTRODUCTION

Money is a medium of exchange and has a long historical evolutionary process that developed from barter exchange to plastic money. Anything accepted as a medium of exchange is money and facilitates the transaction between two parties (Mishkin, 2021). In the current era, money includes conventional and modern mediums of exchange. The difference between conventional and modern mediums of exchange is that the former is used under a centralized system, backed by proper rules and regulations protected by law, and widely accepted in the formal sector. In addition, conventional mediums of exchange have their backup value. At the same time, the modern mediums of exchange are used in a decentralized system with no backup value and guarantee of acceptance (Popescu, 2021).

The modern medium of exchange includes digital currency. Cryptocurrency is a subtype of digital currency, but it has become a prevalent digital currency (Rakan Ayoub Ali, 2021). In the internet era, cryptocurrency is a natural evaluation of currency. It is considered a fast, efficient, and secure medium of exchange. (Atif Aziz, 2019). However, it does not correctly fulfill the definition of money as it is not protected by law because it does not guarantee acceptance and reversal of a transaction to its users (Alfonso et al., (2020). Many types of cryptocurrencies exist, like Bitcoin, Ethereum, Ripple, Dogecoin, etc. The most famous cryptocurrency is Bitcoin, considered the most acceptable digital currency. Bitcoin is a form of virtual currency that uses a web-based communication protocol to aid in transferring wealth from one person to another (Demur SICHINAVA 2019). In Real-world, Bitcoin is used to buy tangible goods and services and transfer wealth. Mensi et al., (2019). Satoshi Nakamoto first introduced Bitcoin in 2008. The intention behind the creation of bitcoin was to develop a digital

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currency for payments and adopt the benefits of traditional cash (Berentsen & Schär, 2018). The second famous form of cryptocurrency is Ethereum. It has a long list of founders. Like Bitcoin, Ethereum was also formed to make the most complex transaction easier. Ripple is the third type of digital currency. It is also a decentralized system in which financial transactions occur without intermediaries. Ripple is constructed upon open-source software. Dogecoin is another cryptocurrency created by a software engineer in 2013 just for the sake of fun. But soon after its creation, it attracted several investors who developed their community, and as a result, it crossed \$85 billion in market capitalization.

Cryptocurrency is based on blockchain technology and considers the public ledger record of all transactions (Demur SICHINAVA 2019). The widely accepted type of cryptocurrency is based on mining, and people involved in this process are called miners. After solving the complicated puzzle, miners are rewarded with coins Chen et al., (2018). Verifying these transactions is an important process that completes with the consent of the participants participating in this system. Segura et al. (2018) stated cryptocurrency is based on a transaction system that does not provide any backup value to its users. But the notable point is that this character becomes cryptocurrency's weak and strong. Due to its innovative features, cryptocurrency has received considerable attention (Fruehwirt et al.,2020). One of the primary reasons behind it is that all weaknesses of the traditional payment system are the strengths of this innovative payment system because it can serve an unregularized market which is not possible in the case of traditional modes of payment Kakavand et al., (2017).

Cryptocurrency is a leading digital currency and significantly impacts the traditional financial system. Although researchers have been working on its role and effect on the traditional market system for the last decade, further research is required to explore the significant linkages between the traditional market system and cryptocurrency. In addition, this impact further depends on the structure of an economy and rules and prudential regulations set by a state to govern its financial system (Neufeld, 2020). Because each country has its own set of rules and regulations, this impact may vary from country to country. Thus, the current study will find the impact of cryptocurrency on the traditional financial system in Pakistan, a developing country.

REVIEW OF LITERATURE

This section consists of a detailed review of former studies regarding traditional and digital transaction systems. The traditional transaction system is a centralized system managed by intermediaries and a central bank. Furthermore, the record-keeping of transactions incurred under this system is manual and paper-based. This record is regulated by rules and regulations monitored by monetary authorities (Tayi & Ballou, 1998; Fuentes, 2006). However, this system is costly because of its procedure. Furthermore, this system is prolonged because of the involvement of financial intermediaries and paperwork in the lite of rules and regulations provided by the central bank. These disadvantages make it more unattractive than cryptocurrency, and its size has been shrinking over time in different countries (Sugumaran, 2018).

On the other hand, cryptocurrency is a virtual currency, and it depends on a unique combination of cryptography which ensures its protection and avoids the double recording of a transaction. One of the significant advantages of this virtual currency is people can transfer their money to others at minimal cost without involving an intermediary. Therefore, it is an easy and flexible payment mode, making the settlement of international payments convenient. The base of cryptocurrency is the mining process used to solve complex problems based on cryptography (Demur SICHINAVA 2019). There is a need to differentiate electronic money and virtual money. The latter is the digital currency, but it deals with online transactions of fiat money, which are administered by a centralized system and backed by rules and regulation, whereas the latter deals with cryptocurrency, which operates under a decentralized system and does not require any rules and regulations provided by the government. One of the significant drawbacks of cryptocurrency is that its price is determined by market forces (demand and supply). Therefore, its price suffers from fluctuations. Thus, the real value may decline when a user wants to convert it into traditional money (Segura et al.,2018). Furthermore, it is non-refundable because this transaction system does not maintain the address of its user.

It is trending and has become a demand of the current era among the international community; explained that if a person wants to hold it, they can get it in return for a service, generate it by mining, and purchase it through the exchange process. Still, people are hesitant to adopt it because of the underdeveloped technology and infrastructure considered potential threats to cryptocurrency (Demur SICHINAVA 2019). Another big hurdle in the adoption and use of cryptocurrency is the selfish

behavior of miners to enjoy a maximum share of mining (Yang et al.,2020). There is a possibility of unlawful transactions because of the absence of cross-checked and a loss of currency in the case of spontaneous and unintended transactions

The users of cryptocurrency are optimistic about its future because it provides freedom to its users. This virtual currency is relatively more secure than traditional currency because there are very few chances of scams while using cryptocurrency. Therefore, financial institutions may suffer from the decline in the number of shareholders and depositors. To fulfill the requirements of the current era, the international community has been abandoning hard currency since the arrival of cryptocurrency. Consequently, financial institutions are trying to complete it, but they are required to spend a significant amount which is responsible for the immense increase in their cost (Dorofeyev et al., 2018)

According to (Demur SICHINAVA 2019), many people still don't have access to banking facilities; therefore, they cannot use and transfer their money under the umbrella of a conventional trading system for international commerce. Therefore, cryptocurrency may become an attractive source of transfer of wealth and money within and across countries to avoid complex rules, regulations, and lengthy procedures (Alqaryouti et al.,2020)

Consequently, central banks have started their work in the last few years to develop a mechanism that helps them launch their digital currency because cryptocurrency has succeeded in grabbing traders' attention. They are working on the legal perspectives to make this payment system more strengthening and efficient (Lam, 2017). Because to overcome the problem of money laundering and make it centralized, which are significant hurdles in adopting cryptocurrency. It is necessary to develop a legal framework that regulates the use of cryptocurrency (Sarbagishev and Dyussenov,2020)

METHODOLOGY

The methodology section of this study consists of the research philosophy, approach, design, and data collection methods. Research philosophy is essential for the development of knowledge and the nature of that knowledge. It consists of the researcher's beliefs and assumptions on knowledge development. There are two common types of philosophy, ontology and epistemology, where ontology describes the nature of reality and is all about knowledge (Alharahsheh and Pius, 2020). This study used an interpretative approach that concentrates on subjective opinion and comes under the umbrella of the epistemology approach.

Two common approaches, deductive and inductive, are used to conduct research. In the deductive approach, the researcher studies theories and then develops a theoretical framework that is tested later using collected data. On the other hand, the inductive approach is the opposite of the inductive approach, where the researcher collects data with an open mind and then builds a theory (Azungah, 2018). In this study, the most critical aspect is to be able to answer the research questions and point out that cryptocurrency can affect the traditional system. This study used the inductive approach, which explores judgment from data collection and then associates it with the theory. Because for reliable and consistent results, data collection is the most critical aspect of a study. As the current research is qualitative, primary data is used to answer the research question because qualitative data provides a better explanation and understanding of this type of theme.

Furthermore, in the qualitative study, researchers mostly choose interviews as a data collection method because it gives the capability to know the arguments, attitudes, and values which can't be observed through the questionnaire (Adhabi and Mozie,2017). The current research adopted an open-ended structured interview method. The interview procedure and protocols of the current study are presented in the appendix.

Data analysis methods

This study aims to find cryptocurrency's impact on the traditional financial system. For this purpose, we conducted audio and video interviews with ten persons serving in banking and educational systems who know about cryptocurrency use. In the second stage, we transcribed all interviews in the Microsoft Word document in English. Ozkan (2004) reports that NVivo software is beneficial for analyzing transcribed data for thematic analysis in the case of a qualitative study. To analyze the transcribed data, the current study generated themes (nodes) and coded them to make a connection between themes and the objective of the study to explore consistent findings.

NVivo provides a word cloud picture which is used to analyze the interviews by measuring the frequency of the words, but before making this cloud, unrelated words were removed by this research.

RESULTS

Thematic analysis was utilized to analyze the data transcribed in the present study. The thematic analysis offers detailed information to identify the key factors that fulfill the goals of this research. Braun and Clarke (2006) presented the six steps to analyze thematics. The phases aren't linear, and researchers can move between these phases throughout the qualitative analysis of data.

Phase 1: Getting Familiar With The Data

Clarke and Braun (2006) argued it is essential to conduct thematic research when data is collected since the researcher is already familiar with data and more interactions increase knowledge of patterns in data. When transcribing the next participant's information, the researcher could discover something similar to the previously transcribed data, reinforcing the idea and allowing the researcher to become more acquainted with the information. Researchers must go through and read the data in this stage and get familiar with the information. In this study, the data were transcribed immediately following interviews (mainly on the same day). This way, the researcher was able to obtain complete data. After twelve interviews, researchers reached the saturation level without needing further interviews.

Phase 2. Generating the initial codes

Weston et al. (2001) said that coding isn't only the process of analyzing data and provides a significant connection between the growth of coding as well as the growth of understanding an event. In this study, the process involved the creation of codes from three different inquiries. The codes were then grouped following the research questions to ensure precision. Braun and Clarke (2006) stressed the importance of generating maximum codes using data to avoid all loss in the core of the research data.

Phase 3: The Search For Themes

The process moves to the next step, and codes are separated and grouped into possible topics (Braun & Clarke, 2006). In the present study, it was found that there are three different sets of codes. Code repetitions or similar codes were compiled into the appropriate topic. This required a thorough study of codes because those who participated in the current study could explain the same idea differently, and specific codes were not taken from the information. They had to be understood following a thorough description. If there was code that did not fit with any possible theme and so the term "miscellaneous topic" was created to place the codes under this theme to ensure that no data was lost and, in addition, the codes from the theme could be incorporated into a relevant theme after the careful examination (Braun and Clarke,). The software calculates a summary statistic to determine the theme's importance in how the codes changed.

Phase 4: Revision Of The Main Themes

This is the crucial phase to finishing the themes, taking a close look at the codes gathered within each theme to determine if these codes are coherent and offer a clear structure (Braun and Clarke 2006). In this study, the researcher carried out a practical validation by verifying the research participants' findings. They agreed on the various TOE factors that affected the profit of Islamic banks and organized them into suitable themes.

Phase 5: Define And Name Themes

Following phase 4, the following section continues to analyze the particulars of each theme to give an exact definition for each topic. The process of naming each theme was based on codes and information supplied by participants rather than on past literature. But, due to the nature of technology, the subjects were given technical names according to different researchers in their research. This is also a sign of the credibility of the data.

Phase 6: Writing The Report

After defining the clearly defined themes, the next step is to formalize the report. Braun and Clarke (2006) highlighted that providing sufficient evidence to back the main themes is essential. This study, the findings report will be presented in the next chapter. The participants' quotes are used in the study to provide evidence of the formulated themes and a clear understanding of the three issues posed in the current study.

Figure 1 is the Word Tree Map which shows the impact of cryptocurrency on different dimensions of a traditional financial system. Figure 2 shows the hierarchy chart. The size of the rectangular box represents the significance, power or importance of a particular aspect or dimension of cryptocurrency and its impact on the traditional financial system. In other words, the larger the size of a box particular box implies that the theme contained by that particular box is more important than

others. According to figure 3, cost-effectiveness is the leading characteristic of cryptocurrency, which is the primary reason for its identity and popularity. Furthermore, cryptocurrency can be used as a medium exchange, and it is the second significant aspect highlighted by interviewees. But cryptocurrency requires proper legislation to avoid money laundering and dollar outflow. Secrecy, security, and convenience are also significant characteristics of cryptocurrency, due to which investors prefer cryptocurrency to the traditional financial system, and it has become a top trend nowadays. On the other hand, a decentralized system, money laundering, dollar outflow, and volatility in the price of cryptocurrency are the drawbacks of cryptocurrency and make it inferior to the traditional financial system. Therefore, cryptocurrency benefits the traditional financial system because of its positive aspects, such as cost-effectiveness, medium of exchange, convenience, secrecy, and security. On the other hand, it is adverse for the traditional financial system because of money laundering and dollar outflow from a country. According to the findings of this study, cryptocurrency should be centralized after proper legislation, which makes possible the imposition of taxes and minimizes the money laundering and outflow of dollars from a country.

Figure 1: Word Tree Map

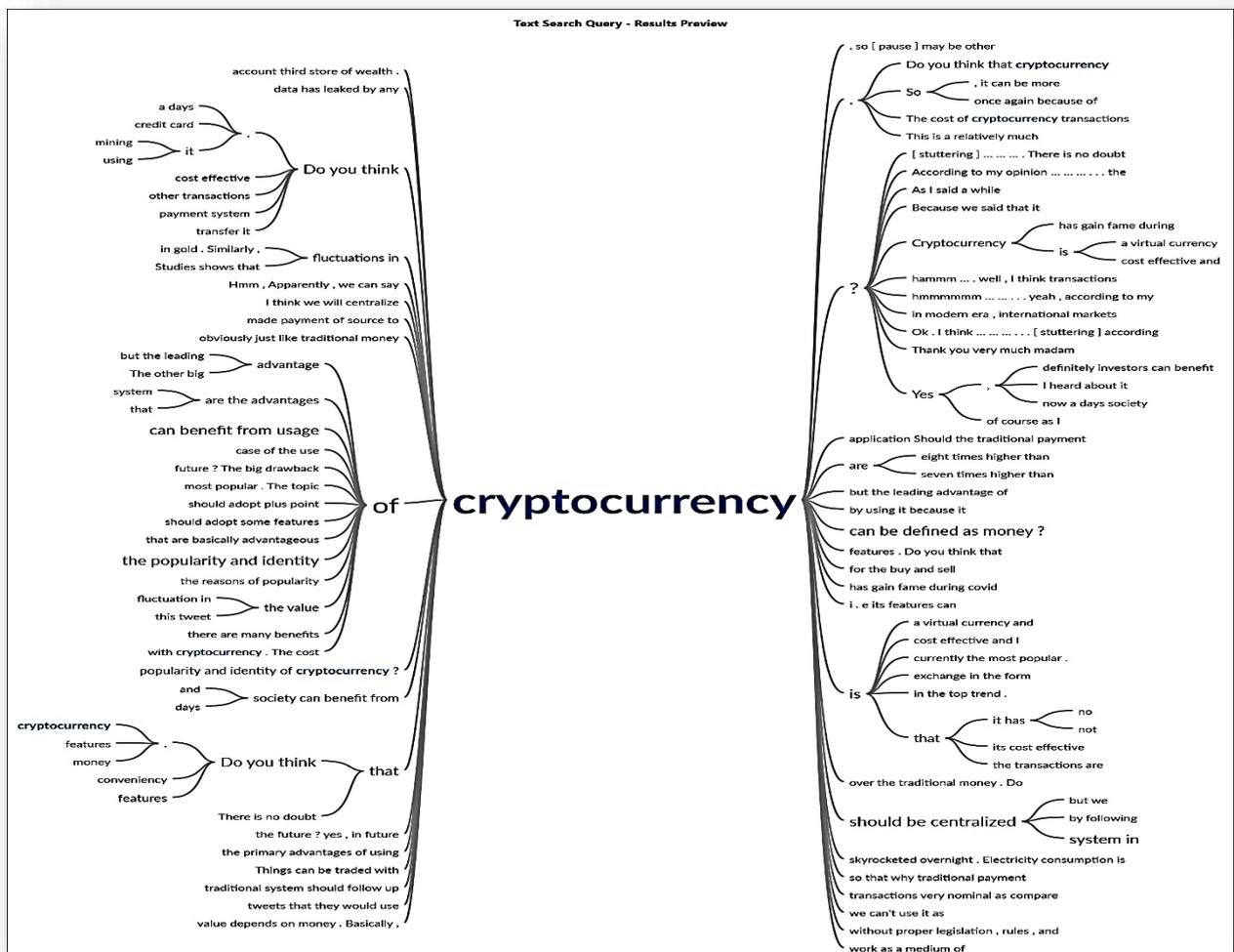
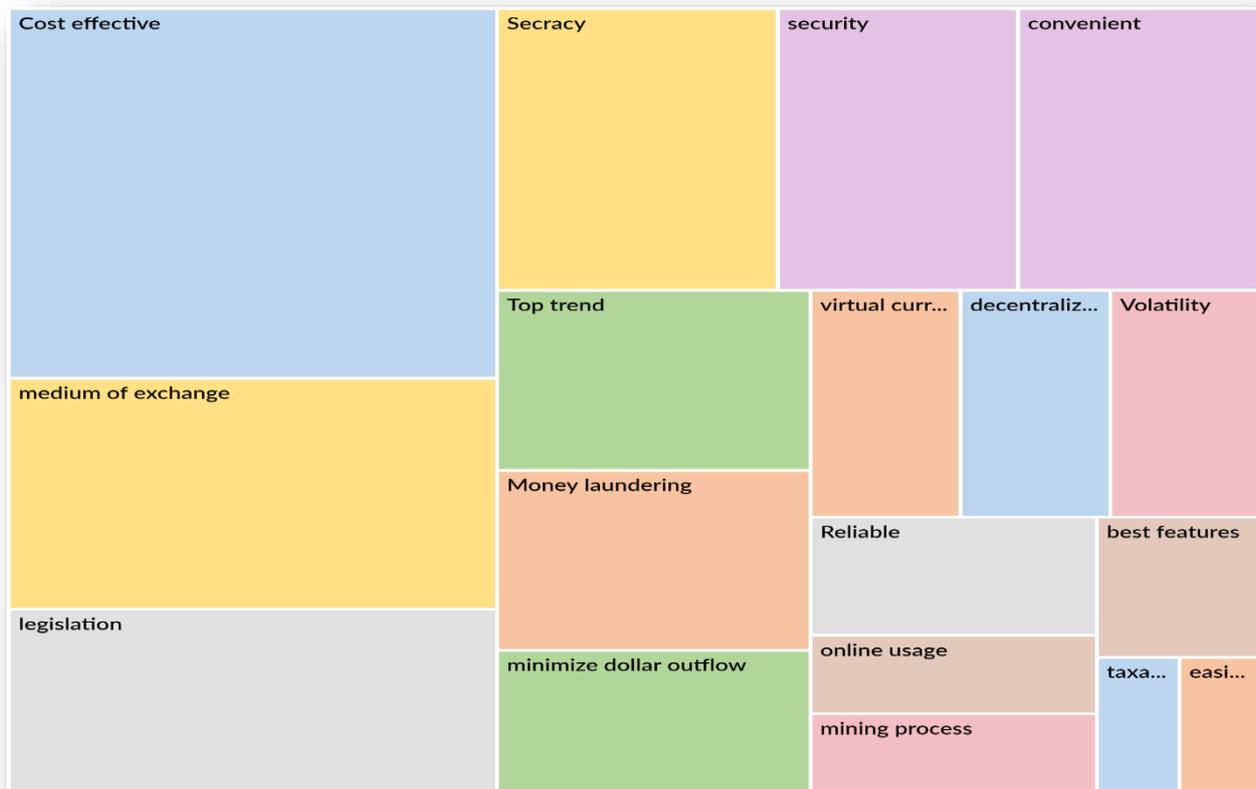


Figure 2: Hierarchy Chart

CONCLUSION

The objective of this research is to find the impact of cryptocurrency on the traditional financial system. The current research adopted a narrative-based approach and conducted ten interviews with other persons who belong to financial institutions and know about cryptocurrency usage. The Word Tag Cloud, Word Tree, and Chart Hierarchy methods were used to analyze the transcribed data in NVivo. According to the findings of this study, cryptocurrency has both positive and negative impacts on the traditional financial system. The positive impact is associated with the cryptocurrency's cost-effective medium of exchange, convenience, secrecy, and security features. However, the adverse impact is associated with money laundering, dollar outflow, and decentralization aspects of cryptocurrency. In addition, to fully enjoy positive effects, cryptocurrency should be centralized after proper legislation and the introduction of an effective tax structure to avoid money laundering and revenue earning for a government, respectively.

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