

# Perception of Cryptocurrency: Adoption Challenge Among Crypto-Investors

Dr. Ghulam Mustafa<sup>1</sup> Hafiz Amaad<sup>2</sup> Dr. Naveed Jhamat <sup>3</sup>

- 1. Assistant Professor, Department of Information Technology, University of the Punjab Gujranwala Campus, Gujranwala, Punjab, Pakistan
- 2. Research Scholar, Department of Information Technology, University of the Punjab Gujranwala Campus, Gujranwala, Punjab, Pakistan
- 3. Assistant Professor, Department of Information Technology, University of the Punjab Gujranwala Campus, Gujranwala, Punjab, Pakistan

PAPER INFO	ABSTRACT			
<b>Received:</b>	This study aims to explore cryptocurrency investment			
December 02, 2019	experiences from an emerging market context. This study			
Accepted:	investigates the lived experiences of cryptocurrency investors, the potential risks and benefits of the cryptocurrency investment, and			
December 25, 2019				
Online:	the potential prospects from cryptocurrency investors'			
December 31, 2019	perspectives. The current study intends to adopt a qualitative			
Keywords:	research approach to address the phenomenon of the study. The qualitative study employs interviews as a data collection tool that allows researchers to seek people's stories from their lived			
Cryptocurrency				
Investment,				
Digital Economy,	experiences. In this regard, the interpretivism paradigm is			
Investor	employed as it indicates that people determine the reality around			
Perception,	events rather than other factors. Moreover, the purposive			
Paperless				
Economy,	sampling technique is adopted to discover and recruit the current			
Corresponding	study respondents, which were in alignment with the proposed			
Author	research questions. The interviews were terminated at the point of			
naveed.jhamat@p	saturation, where a total of twelve cryptocurrency investors			
ugc.edu.pk	participated in the survey.			

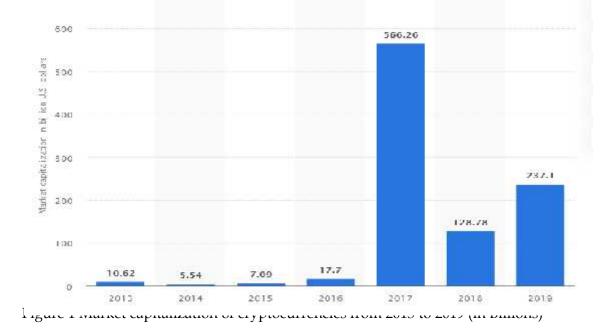
# Introduction

The current world is approaching a new economic environment stage, where digital money is beginning to get much appeal. A significant increase in the amount of trade was made possible due to the digitization of the records. Transactional and ownership revolution in digital marketing creates the ability to further deal with a virtual currency called virtual currency, which further boosts cryptocurrency's ability to morph through various asset forms(Bibi, Hussain, & Faisal, 2019). The scope for socio-economic gains is considered in the study of the digital economy. However, the digital economy is thoroughly imitating the need for incentives to stakeholders as a result of various scientific evidence (Chazhaeva, Serebryakova, Tashkulova, & Atabekova, 2019). The growing trend in the digital economy is

confirmed by the observations of economists which show that it has taken 120 years for a major innovation to spread beyond Europe.

In recent years, the cryptocurrency market and its adoption have evolved rapidly. Cryptocurrency is based on cryptographic algorithms to transfer digital information to ensure authentic and secure transactions (Farell, 2015). Cryptocurrency aims to substitute the current paper economy with the digital paperless economy to deliver peer-to-peer medium to exchange (Bohr & Bashir, 2014). It comprises the significant characteristics of money to some extent. Eikmanns and Sandner (2015) stated that Bitcoin is the best-known form of cryptocurrency and a safe exchange and store of money.

The cryptocurrency market has grown drastically, although due to the high volatility, the value of cryptocurrency fluctuates regularly, as shown in Figure 1. Only the industry's market value is greater than a few technology leading organizations and a few world's economies (Brito & Castillo, 2013). In the cryptocurrency market, Bitcoin is the market leader and the first cryptocurrency introduced by the market pseudonymous entity known as Satoshi Nakamoto in 2009 (Alzahrani & Daim, 2019; Nakamoto, 2008), although the real market of cryptocurrency started in 2013 (Galetic, Potocki, & Jakovic, 2015). Currently, there are more than 1650 various altcoins available in the market (Alzahrani & Daim, 2019). The cryptocurrency market's primary goal is to establish a currency beyond the governmental control's central authorities(Gibbs & Yordchim, 2014) and depend on cryptographic proof for successful transactions.



The use of cryptocurrencies varies between countries on the basis of technological and economic factors. Hileman (2015), proposed to measure the

probability of Bitcoin's adoption in 178 countries, a "bitcoins business opportunity map." The index contained knowledge of technology, global transfers, inflation, the level of local economies, financial control, historical economic meltdown and bitcoin adoption. The index was intended to identify countries with the highest probability of acceptance of crypto-currencies, with findings indicating that the most likely countries to take crypto-currency are Argentina, Venezuela and Zimbabwe.

A few studies assessed cryptocurrency trading and volatility considering the attention of cryptocurrency investors. For example, Urquhart (2018) examined Bitcoin investors' attention utilizing Google trend data and found that attention was not the significant predictor. On the contrary, Shen et al. (2019) used Twitter data for experimental purposes and found that attention was the significant driver of the next day's realized volatility. However, this study investigates the lived experiences of cryptocurrency investors in the market of cryptocurrency in detail.

This study aims to investigate the lived experiences of cryptocurrency investors and their corresponding perceptions in the market of cryptocurrency in the context of UAE. The phenomenology of the study is the investment of the investors in the digital market of cryptocurrency. This research aims to perform a literature review to identify numerous variables surrounding the investment in cryptocurrency and gather qualitative data from UAE-based investors to analyse the phenomenology of this study. The main aims of the analysis, however, may be as follows:

- To investigate the lived experiences of cryptocurrency investors.
- To construct the prospects based on the interpretations of investors.
- To explore the potential risks and benefits of cryptocurrency investment.

#### Background

A paperless economy is a new approach to organizing an economic system, where innovative technologies play a significant role in processing economic operations. A paperless economy is a state-of-the-art approach, a milestone for the advanced and emerging world nations. Therefore, higher prerequisites from the investors are set to it – this approach must deliver more significant opportunities for the consistently increasing competitiveness of the economies. Furthermore, it should also create the capability to increase the effectiveness of the increasing population's economic operations and living standards (Chazhaeva et al., 2019).

The paperless economy is the 4<sup>th</sup> industrial revolution (Bogomolov & Kolodnyaya, 2019; Buevich, Karamova, & Sumarokov, 2019; Solovykh, Koroleva, Stompeleva, Terskaya, & Aliev, 2019) and is also referred to as a digital economy by various researchers (Kostakis, Roos, & Bauwens, 2016; Pradhan, Arvin, Nair, Bennett, & Bahmani, 2019; Watanabe, Naveed, Tou, & Neittaanmäki, 2018). The paperless economy provides a communication atmosphere for the economic operations over the internet and different methods, forms, tools, and results regarding its implementation (Endovitskaya, E. V. ,2019).

A digital or paperless economy has been described by the world bank as a framework for social, economic or cultural ties focused on the application of communication technology and digital knowledge. It is the most important aspect of this system and its massive contribution to the manufacture, collection, treatment and delivery of information continues to be. In addition, some scientists believe that the paperless economy is a period of modern economic system efficiency growth which is transiting further towards the sixth or fourth technological revolution(Solovykh et al., 2019).

The digital financial market is extensively based on cryptocurrency, which has played a vital role in developing the digital economy model. Since its commencement, cryptocurrency has a great history. With time, cryptocurrency evolved into different forms with different names. Firstly, in 1983, David Chaum presented the idea of anonymous cryptocurrency and named it "eCash" (Chaum, 1983; Chaum, Fiat, & Naor, 1988), and later, in 1995, he employed it via "DigiCash" (Pitta, 1999). In 1998, Wei Dai presented "B-Money", which was an anonymous distributed digital money system (Dai, 1998), while later on, Nick Szabo defined "Bit Gold" (Wiki, 2019). Afterward, in 2009, Satoshi Nakamoto created the first decentralized cryptocurrency system called "bitcoin" by employing the "SHA-256" cryptographic hash function (Brito & Castillo, 2013; Niccolai, 2013).

Attempts were made in April 2011 to create Namecoin, a decentralised DNS, to ensure greater protection online. In October 2011, Litecoin, the first popular crypto scheme, was released as its hash instead of "SHA-255" based on an SCRYPT algorithm. In the other hand, Peercoin was the first person to practise a hybrid proof of work (Steadman, 2013). The UK subsequently appointed its treasury to research Cryptocurrency and its position in the UK economy; the study was also expected to advise on whether or not crypto-currency legislation could be adopted. (The UK News, 2014).

Moreover, security is the primary concern of the digital economy as it prevents hacking and fraudulent activities over the internet. Although security can be breached at both personal and sectoral levels, which creates problems like loss of money from an exchange or a private ledger where the money was held, however, Grinberg (2012) contended that even if the hackers stole the more substantial amount of the user's funds, it would not affect the system as a whole. Later, a group of hackers tested his argument by stealing many cryptocurrencies worth of millions of US dollars (Wesley, 2018).

Around 1.7 billion USD was lost because of scams and fraudulent activities in 2018, while the average of such loss at the beginning of 2019 was 1.2 billion USD (Chavez-Dreyfuss, 2019). Moreover, there are several notable exchange thefts resulting from cryptocurrency hacks; for example, the cryptocurrency of the worth 5 million USD was stolen from Bitstamp exchange firm in 2015 (Whittaker, 2015), bitcoins of the worth of 350 million USD were stolen from a crypto-exchange firm,

Mt. Gox (McMillan, 2014), and cryptocurrency of the worth more than \$60 million was stolen from NiceHash in 2017 (Browne, 2017) though these activities affected the price instead of the cryptocurrency itself, which remained un-breached and safe (Hatmaker, 2018; Wesley, 2018).

Literature has revealed that cryptocurrency's decentralized nature provides an extra layer of protection against thefts and frauds (Wesley, 2018). In this regard, blockchain technology is used to create a significant security layer for cryptocurrencies, making today's cryptocurrencies impossible to hack. Currently, blockchain is assumed to become the most crucial technology of today's needs; some researchers consider it as necessary as the internet because of its potential influence on society (e.g., Beck, Müller-Bloch, & King, 2018). Cryptocurrencies are digital coins for which blockchain is used, such as Ripple and Ethereum (Sharov & Kolkovsky, 2019). Research has also revealed that blockchain can reduce insecurity, uncertainty, and ambiguity in the transactions of cryptocurrencies by providing complete transactional exposure (Beck et al., 2018).

#### **Material and Methods**

This study aimed to adopt a qualitative research approach to address the research questions developed for this study. Qualitative research is a most adaptable unique approach as it holistically helps researchers understand the intention and context of the consumers' lived experiences. It provides a universal in-depth understanding of the investor's perceptions, inspirations, and fundamental motives behind their marketplace engagements. The qualitative approach allows researchers to understand the constructed meanings of people's lived experiences, how they perceive their world and how they describe their lived experiences (Merriam, 2009). Qualitative methodology is inductive and highly descriptive. Merriam(2009) summarised different characteristics of the qualitative approach as follows:

Firstly, employing the concepts of constructionism, symbolic interactionism, and phenomenology, qualitative researchers are concerned about how individuals interpret their lived experiences, how they observe their world, and what sense they accredit to their lived experiences. Overall, qualitative methodology assists researchers to delineate the procedure of meaning-making, how individuals make sense of their lived experiences and how they interpret them.

Secondly, similar to other research methodologies, the researcher is the fundamental instrument for data collection and analysis. Since understanding is the primary intention of this approach, an instrument that is highly responsive and adaptive is ideal for data collection and analysis.

Thirdly, qualitative researchers can expand their understanding through verbal and non-verbal communications, proceed with collected information (data) promptly, refine and summarise the material, validate the accuracy of the interpretation by respondents, and explore unexpected responses. Finally, the qualitative methodology provides highly descriptive data in sentences, diagrams, tables, or any other non-numerical form as practiced by other research methodologies.

The insights of the qualitative approach disclose the potentials and paths for the improvement of the brand. Additionally, it prevents short-term or momentary lived experiences of the investors and studies the overview and enduring influence for the brand as well as it makes understanding by realizing the background of the investors' lived experiences and the core motives for investment (Branthwaite & Patterson, 2011). Langmaid(2010) stated that the most crucial element of qualitative research in understanding is concentrating on listening out for "possibilities" as this approach plays effectively in this task and provides a wide range of methodologies to enhance listening and understanding the lived experiences of the participants. Moreover, the qualitative approach mainly concerns making a depth of understanding instead of a breadth (Statswork, 2019).

#### Population, Sample, and Sampling Technique

Purposive sampling technique was adopted to discover and recruit the respondents of the current study (J. W. Creswell & Creswell, 2018), which were in alignment with the proposed research questions. Since the aim of this study was to reveal crucial facts about cryptocurrency investment, experienced participants with prior experience with cryptocurrency investment were sought out and chosen to share their first-hand knowledge. This sample selection added value to the study and contributed to the research objectives and questions. Although, the core findings of the study were captured in conjunction with purposive sampling. In this regard, the potential cryptocurrency investors of UAE were identified who were likely to "generate rich, dense, focused information on the research question to allow the researcher to provide a convincing account of the phenomenon" (Hayter, Cleary, & Horsfall, 2014, p. 473). An interview protocol was designed, given in the appendix, to answer the research questions proposed in this study and each question was tailored to the respondents. Additionally, respondents were informed of the phenomenological objectives of the study.

When no new facts or patterns can be discerned from the data gathered from interviews, the saturation point has been reached (Guest et al., 2006). In qualitative analysis, data saturation is also a very valuable principle in terms of sample size. This means that a single interview would never be enough to create relevant themes. As a result, at least two or three interviews are needed to create appropriate themes (Statswork, 2019). The definition of continuous sampling is used to explain the use of a certain sample size in qualitative analysis before the saturation point is reached.

Furthermore, respondents were contacted online, and interviews were conducted online utilizing electronic communication media given the current pandemic and importance of social distancing. In this regard, different telecommunication mediums were used for conducting interviews of the potential cryptocurrency investors from the UAE. Although, the main and frequently used communication medium was local/landline phone calls. The permission of the respondents recorded each phone call, and field notes were made during each interview to construct themes of the phenomenon.

#### **Data Collection Tool and Procedures**

The cryptocurrency investors were determined by the purposive sampling approach based on data sources with some specific considerations. Faisal (2003) stated that the researchers set the purposive sampling approach. Thus, the criteria included by the authors of this study was to investigate cryptocurrency investors who have invested in cryptocurrency and have a conscious experience of the field.

The data collection procedure began with the determination of cryptocurrency investors to be encountered. Once the investors were identified, the authors contacted them to know about their willingness to participate in this study. Due to Covid-19, all the investors/participants were contacted online via different communication mediums, especially phone calls. Afterward, the respondents willing to participate in this study were listed out. The authors contacted the participants to conduct an in-depth interview on the study's phenomenon, which was based on the research questions. Respondents were asked open-ended questions proposed in this study, and this process was repeated until the fundamental understanding of the lived experiences of respondents was taken into account by the authors. The online interview, field notes were made by the authors to keep the description of each investor in terms of his/her lived experiences. Additionally, the authors prepared audio recordings of each session, keeping the identity of participants confidential.

#### Data analysis

Qualitative data is often considered challenging to analyze (Wesley, 2018). That is why it is inevitable to adopt a suitable framework, which leads the entire data analysis procedure in qualitative research. In this study, the authors adopted Collaizi's phenomenological descriptive method for data analysis with a minor modification based on the study's context(Morrow, Rodriguez, & King, 2015). Qualitative data acquired from the interviews in the form of investors verbatim and field notes were transcribed into Microsoft Excel format. After transcription, verbatim and notes were studied deeply to transform them into codes, which were further used to develop more simplified themes around lived experiences of cryptocurrency investors, advantages, challenges, and prospects. The step-by-step process of the application of Collaizi's phenomenological approach is given in Table 1.

Table 1				
Steps followed by the Authors for the Data Analysis				
Description				
The authors familiarised with the lived experiences of				

	cryptocurrency investors employing open-ended			
	interviews, field notes, and by reading participants'			
	verbatim several times.			
Identification of	The authors identified all the statements/descriptions that			
Significant Statements	were directly relevant to the phenomenology of the study.			
Formulation of	The authors identified all the actual meanings relevant to			
Meanings	the phenomenon, considering the significant statements			
	and reflexively bracketed the description of respondents			
	to stick closely to the phenomenon of the study.			
Clustering Themes	The authors clustered the identified meanings from the			
	descriptive statements of the respondents into themes.			
	The authors again bracketed the descriptions to prevent			
	any potential influence of existing theory.			
Development of	The authors wrote a comprehensive and inclusive			
Comprehensive	description of the phenomenon, encompassing all the			
Description	previous step's clustered themes.			
Production of Ultimate	The authors condensed the comprehensive statements			
Structure	down to the short, compact statements that bracketed			
	only those aspects that were deemed to be elemental to			
	the structure of the phenomenon.			

#### **Ethical Issues and Research Limitations**

One of the most important qualitative data collection methods is the research interview. Despite the wide application of this approach, there are several limitations associated with qualitative interviews (Qu & Dumay, 2011; Reinharz & Douglas, 1986). Ethical considerations are most important for the research process. Since the current study had human participation in the data collection process through interviews, ethical challenges were addressed carefully. Various ethical issues are bulleted as follows:

*Anonymity*: The respondents might consider how their information will be used and how their identity will be protected and anonymous. They may stop participating in the research, even if they do, they may avoid sharing any aspect about their living experiences in the cryptocurrency industry, at this point of ambiguity. As a result, they remained confidential during the analysis.

*Biasedness*: It was one of the significant ethical issues due to the nature of the study. As this study explores the phenomenon of investment in the cryptocurrency market, the respondents might be biased in expressing their financial lived experiences. They might feel unsafe in disclosing their financial conditions. Thus, this issue was handled by the authors carefully by ensuring respondents that their information will be kept confidential and will not be disclosed to any third party.

*Confidentiality*: This is another ethical issue of this study. The respondents were uncertain about their confidentiality and scared of sharing their personal details with third-party individuals. Thus, their details were kept confidential, and respondents were guaranteed that their personal details would not be published in any way.

*Sample Size and Population*: The sample size and population could be the research limitation as the population was selected from a specific region. Thus, the specificity of the region does not allow the findings of this study to be generalized to the larger population. That is why the same framework used in this study might produce a different outcome in the case of other regions and populations.

# **Results and Discussion**

Table 2 Profile of respondents				
Demographic Variable	n	%		
Gender				
Male	9	75.0%		
Female	3	25.0%		
Age				
Less than 30	2	16.7%		
30-35	5	41.7%		
36-40	3	25.0%		
More than 40	2	16.7%		
Years of experience in Cryptocurrency	investment			
Up to 1 year	4	33.3%		
2 years	2	16.7%		
3 years	4	33.3%		
4 years	2	16.7%		
Total	12	100.0%		

#### **Profile of Respondents**

The above table provides a profile description of the respondents of the study who participated in the interviews. Table 2 illustrates that out of 12 respondents, nine (75%) respondents were male, and the remaining three respondents (25%) were female crypto investors. Similarly, 41.7% of respondents were between 30-35 years old, while two times, 16.7% of respondents were above 40 years and below 30 years, respectively. On the other hand, 33.3% of respondents had four years' experience of investment in the cryptocurrency market, and two times, 16.7% of respondents had 2- and 4-years' experience of cryptocurrency investment.

# **Constructed Themes**

Figure 2 provides a summary of all themes constructed from the field notes made during the interviews. According to the perceptions of cryptocurrency investors, the below table provides an overview of cryptocurrency definition, drivers of cryptocurrency investment, transformational journey of crypto investment, challenges and prospects of crypto investment, and anti-money laundering in the cryptocurrency investment.

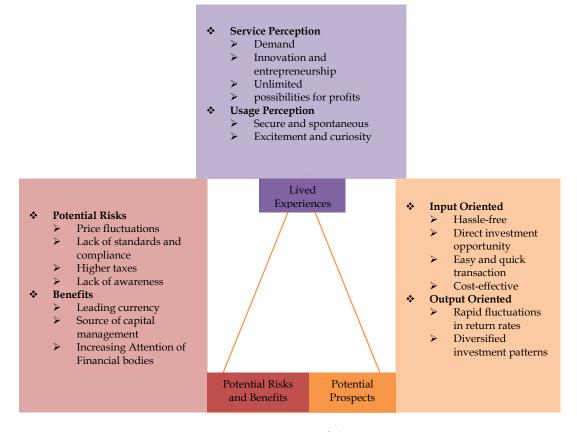


Fig 2. Summary of themes

# **Lived Experiences**

# Service Perception Demand

"Cryptocurrency platform provides a rich environment for the investment and financial management, which fosters the demand of the currency over the traditional financial platforms" (Gender: Male, Age: 35 years, experience of cryptocurrency = 1 year) Innovation and Entrepreneurship

*"Cryptocurrencies are driven by the opportunity for radical innovation and entrepreneurship" (Gender: Male, Age: 38 years, experience of cryptocurrency = 3 years)* 

# **Unlimited Possibilities for Profits**

"I believe, there are multiple reasons, but the main reason is unlimited possibilities to gain profit" (Gender: Female, Age: 32 years, experience of cryptocurrency = 3 years)

# **Usage Perception**

#### Secure and spontaneous

*"Secure and fast transaction from any corner of the world" (Gender: Male, Age: 41 years, experience of cryptocurrency = 1 year)* 

# **Excitement and Curiosity**

*"Excitement and curiosity, about the new digital currency, is the main driver of it" (Gender: Male, Age: 42 years, experience of cryptocurrency = 1 year)* 

# **Potential Prospects**

# **Input Oriented**

#### Hassle-free

"Cryptocurrency having the potential to replace paper-based currencies into digital currency and we will witness this in the coming year. Therefore, our traditional way to adopt investment method definitely going to change and it will be more transparent and handier rather than multiple hassles which because of traditional way wherein hidden charges and time limits are always the concerns" (Gender: Female, Age: 32 years, experience of cryptocurrency = 3 years)

# Direct investment opportunity

*"If you've been looking for good investment opportunities and cryptocurrency is one of the best options" (Gender: Male, Age: 32 years, experience of cryptocurrency = 3 years)* 

# Easy and quick transaction

"The biggest advantage is the speed of the transaction with bear minimum fee" (Gender: Male, Age: 35 years, experience of cryptocurrency = 1 year)

# **Cost-effective**

*"Easier and cheaper transfer of assets with transparency, accessible, lower cost and greater security" (Gender: Female, Age: 39 years, experience of cryptocurrency = 4 years)* 

# **Output-Oriented**

# **Rapid fluctuations in return rates**

*"Cryptocurrency is easy to investment platform with high return anticipation" (Gender: Male, Age: 41 years, experience of cryptocurrency = 1 year)* 

# **Diversified investment patterns**

"What is coming in digital currency, certainly the investment pattern will be change and outlook of investment prospects too" (Gender: Male, Age: 34 years, experience of cryptocurrency = 2 years)

# Potential Challenges and Benefits of Cryptocurrency Investment

#### Challenges

#### **Price fluctuations**

*"The prices are quite volatile, which means investment can be both ways" (Gender: Male, Age: 28 years, experience of cryptocurrency = 3 years)* 

#### Lack of standards and compliance

*"Education and standard compliance is still working area of the crypto platform"* (Gender: Male, Age: 41 years, experience of cryptocurrency = 1 year)

#### **Higher taxes**

"Additionally, higher taxes will also create hurdles for technological innovations" (Gender: Female, Age: 39 years, experience of cryptocurrency = 4 years)

#### Lack of awareness

"Less awareness, people should know what is to safe mode to buy/sell, where to store and suggested security feature to be always followed" (Gender: Male, Age: 30 years, experience of cryptocurrency = 1 year)

# Benefits

#### Leading currency

*"Cryptocurrency might be the leading currency for the whole world" (Gender: Male, Age: 35 years, experience of cryptocurrency = 1 year)* 

Source of capital management

*"It will also become another way of handling your capital; the market share will depend upon the promotion of the benefits by the various stakeholders" (Gender: Female, Age: 39 years, experience of cryptocurrency = 4 years)* 

#### Increasing attention of financial bodies

*"Financial bodies are closely monitoring the concept before adoption the method"* (Gender: Male, Age: 41 years, experience of cryptocurrency = 1 year)

# Main findings

- 1. The cryptocurrency provides an opportunity for lifetime investment and ease of use to its investors.
- 2. Due to modern trading, cryptocurrency investment allows investors to become financially well-being. Investors are enthusiastic about cryptocurrency investment because it is a new technology and a modern way of trade and investment in the digital economy. The conventional economies are targeting to merge the future economy in its edges.
- 3. The cryptocurrency platforms are highly user-friendly and technologyoriented for better finance management. Hence, these characteristics lead to a higher demand for cryptocurrency platforms.
- 4. Modern cryptocurrencies are based on cryptographic and blockchain technologies; thus, they open new windows for revolutionary innovations in the digital economy and extend entrepreneurship opportunities.
- 5. Cryptocurrency investment provides unlimited opportunities for profits. Thus, despite the integration of modern cryptographic technologies for transactions and finance management, higher demand in the digital market, and financial well-being, the unlimited opportunities for profit gain in the digital economic market are considered the main reason cryptocurrency investment.
- 6. Cryptocurrency provides a secure environment employing decentralized blockchain technology, which prevents unauthorized access to investors' payments. Furthermore, modern cryptographic algorithms make cryptocurrency transactions quicker and more spontaneous. Thus, cryptocurrency ensures secure and quick transactions worldwide.
- 7. The modernity and individuality of cryptocurrency are other drivers motivating cryptocurrency investors to invest in its digital financial market. It provides quick, secure, and speedy transactions in no time with comparatively less transaction fees. Thus, investors are curious and excited about knowing its functionalities, its working style, and profit gain by practical experiences.

# **Research Limitations and Future Recommendations**

This study is based on the qualitative research approach, which employs interviews as a data collection tool, and despite the broad application of this approach, there are several limitations associated with qualitative interviews (Qu & Dumay, 2011; Reinharz & Douglas, 1986). As this study explores the phenomenon of investment in the cryptocurrency market, the respondents might be biased in expressing their financial lived experiences. Despite the ethical considerations in this regard, the possibility of biasedness is still there. Another limitation of this study is the sample size and population, as the population was selected from a specific region. Thus, the specificity of the region does not allow the findings of this study to be generalized to the larger population. That is why the same framework of this study might produce different outcomes if practiced in other regions and populations. This study provides a detailed understanding of the phenomenon being address and opens various research paths for the researchers. The scope of this study can be expanded by addressing more questions in the respective field of interest.

Moreover, the current study's interviews were conducted online via phone calls due to current pandemic situation; face-to-face interviews might unlock more themes for discussion. Additionally, respondents from different ethnicities should also be included in the future study to explore the cryptocurrency investment's internation perception. In future research, researchers are encouraged to investigate the objective evidence along with the perception of the cryptocurrency investors. In this regard, researchers might use the hybrid research approach, which comprises qualitative and quantitative approaches. The qualitative approach would allow understanding the perception of the cryptocurrency investors, while the quantitative approach would provide statistical foundations of the real-world data of the cryptocurrency investment. In this way, a comparative study can be done.

#### Conclusion

The current study aimed to investigate the lived experiences and perceptions of cryptocurrency investors towards cryptocurrency investment. To achieve the study objectives, the current study employed a qualitative research approach, which is most adaptable in such studies where researchers are striving to investigate the respondents' lived experiences. Moreover, to collect information about the lived experiences of the respondents, the qualitative research approach employs openended interviews. In this regard, the authors selected cryptocurrency investors from the UAE to participate in the interviews. At the point of saturation, the interviewing process was terminated, and the collected information was analyzed according to the guidelines of the qualitative information assessment. The results of the qualitative analysis revealed that cryptocurrency is among the fastest-growing digital currencies. It is playing a vital role in the digital economy and provides disruptive payment methods. It provides various features to its users, including lifetime investment, financial well-being, easy and quick access to money. Furthermore, the investors perceive that it provides unlimited possibilities for profit, it is secure and spontaneous, and it increases the excitement and curiosity among cryptocurrency investors. They also reveal that it is hassle-free and provides direct investment opportunities, easy and quick transactions; additionally, it is costeffective. However, there are some challenges associated with cryptocurrency investment, such as rapid fluctuations in return rates, diversified investment patterns, price fluctuations, lack of standards, lack of compliance, higher taxations, and lack of awareness. Thus, cryptocurrency investors highly suggested overcoming these challenges.

#### References

- ABEYRATNE, S.A MONFARED, R.P. (2016). Blockchain ready manufacturing supply chain using distributed ledger. *International Journal of Research in Engineering and Technology*, 5(9), 1–10.
- Alzahrani, S., & Daim, T. U. (2019). Analysis of the cryptocurrency adoption decision: Literature review. PICMET 2019 - Portland International Conference on Management of Engineering and Technology: Technology Management in the World of Intelligent Systems, Proceedings.
- Beck, R., Müller-Bloch, C., & King, J. L. (2018). Governance in the blockchain economy: A framework and research agenda. *Journal of the Association for Information Systems*, 19(10), 1020–1034.
- Bibi, S., Hussain, S., & Faisal, M. I. (2019). Public Perception Based Recommendation System for Cryptocurrency. *Proceedings of 2019 16th International Bhurban Conference on Applied Sciences and Technology, IBCAST 2019, 661–665.*
- Bogomolov, E., & Kolodnyaya, G. (2019). Digital transformation: The practice of using industrial internet of things. *Studies in Computational Intelligence*, 826, 589–598.
- Bohr, J., & Bashir, M. (2014). Who Uses Bitcoin? An exploration of the Bitcoin community. 2014 12th Annual Conference on Privacy, Security and Trust, PST 2014, 94–101.
- Branthwaite, A., & Patterson, S. (2011). The power of qualitative research in the era of social media. *Qualitative Market Research*, 14(4), 430–440.
- Brito, J., & Castillo, A. (2013). Bitcoin: A Primer for Policymakers. *Mercatus Center: Geroge Mason University.*, 29(4), 3–12.
- Brown, A. (2019). Respectful Research With and About Young Families. *Respectful Research With and About Young Families*.
- Brown, A., Teach, D., Ed, B., & Ed, M. (2012). *The new frontier : A social ecological exploration of factors impacting on parental support for the active play of young children A Dissertation submitted by For the award of.* University of Southern Queensland, Toowoomba, QLD.
- Browne, R. (2017). More than \$60 million worth of bitcoin potentially stolen after hack on cryptocurrency site. Retrieved September 30, 2019, from THE FINTECH EFFECT - CNBC website: https://www.cnbc.com/2017/12/07/bitcoin-stolenin-hack-on-nicehash-cryptocurrency-mining-marketplace.html

- Buevich, A., Karamova, O., & Sumarokov, E. (2019). Improvement of the institutional structure of the real sector under the conditions of the digital economy. *Studies in Computational Intelligence*, 826, 675–686.
- Chaum, D. (1983). Blind Signatures for Untraceable Payments. *Advances in Cryptology*, 199–203.
- Chaum, D., Fiat, A., & Naor, M. (1988). Untraceable electronic cash. Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 403 LNCS, 319–327.
- Chavez-Dreyfuss, G. (2019). Cryptocurrency thefts, fraud hit \$1.2 billion in first quarter: report. Retrieved September 30, 2019, from Cyber Risk - Reuters website: https://www.reuters.com/article/us-crypto-currency-fraud/cryptocurrencythefts-fraud-hit-1-2-billion-in-first-quarter-report-idUSKCN1S62P3
- Chazhaeva, M. M., Serebryakova, A. A., Tashkulova, G. K., & Atabekova, N. K. (2019, April). Sustainable Development of the Digital Economy on the Basis of Managing Social and Technological Threats. In Institute of Scientific Communications Conference (pp. 49-56). Springer, Cham.
- Creswell, J. (2013). Qualitative inquiry and research design: Choosing among five approaches. *Thousand Oaks, CA: Sage*.
- Creswell, J. W., & Creswell, J. D. (2018). Research Design. Qualitative, and Mixed Methods Approaches. *Journal of Chemical Information and Modeling*.
- Dai, W. (1998). B-Money. Retrieved September 29, 2019, from http://www.weidai.com/bmoney.txt
- Dworkin, S. L. (2012). Sample size policy for qualitative studies using in-depth interviews. *Archives of Sexual Behavior*, 41(6), 1319–1320.
- Eikmanns, B. C., & Sandner, P. G. (2015). Bitcoin: The Next Revolution in International Payment Processing? An Empirical Analysis of Potential Use Cases. *SSRN Electronic*
- Endovitskaya, E. V. (2019, April). Assessment of the Company's Staff Creativity as the Basis for Their Adjustment to the Terms of the Digital Economy. In Institute of Scientific Communications Conference (pp. 489-498). Springer, Cham.
- Ertz, M., & Boily, É. (2019). The Rise of the Digital Economy: Thoughts on Blockchain Technology and Cryptocurrencies for the Collaborative Economy. *International Journal of Innovation Studies*.

- Farell, R. (2015). An Analysis of the Cryptocurrency Industry. Wharton Research Scholars Journal. Paper, 130(5), 1–23. Retrieved from http://repository.upenn.edu/wharton\_research\_scholars%0Ahttp://repository. upenn.edu/wharton\_research\_scholars/130
- G. Popkova, E., & Sergi, B. S. (2018). Will Industry 4.0 and Other Innovations Impact Russia's Development? *Exploring the Future of Russia's Economy and Markets*, 51– 68.
- Galetic, F., Potocki, I., & Jakovic, B. (2015). Virtual Currencies as Payment Method of Contemporary Economy. International OFEL Conference on Governance, Management and Entrepreneurship, 1109–1127.
- Gibbs, T., & Yordchim, S. (2014). Thai perception on litecoin value. *International Journal of Social, Education, Economics and Management Engineering*, 8(8), 2589–2591.
- Grinberg, R. (2012). Bitcoin: An Innovative Alternative Digital Currency. *Hastings* Science and Technology Law Journal, 4(1), 159.
- Guest, G., Bunce, A., & Johnson, L. (2006). How Many Interviews Are Enough?: An Experiment with Data Saturation and Variability. *Field Methods*, *18*(1), 59–82.
- Hatmaker, T. (2018). Italian cryptocurrency exchange gets hacked for \$170 million in Nano. Retrieved September 30, 2019, from Techchrunch website: https://techcrunch.com/2018/02/12/bitgrail-hack-nano/
- Hayter, M., Cleary, M., & Horsfall, J. (2014). Data collection and sampling in qualitative research: does size matter? *Journal of Advanced Nursing*, 70(473–475), 2012–2014.
- Hileman, G. (2015). The bitcoin market potential index. *Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 8976, 92–93.
- Iphofen, R., & Tolich, M. (2019). The SAGE Handbook of Qualitative Research Ethics. *The SAGE Handbook of Qualitative Research Ethics*.
- Johnson, P., & Duberley, J. (2013). Understanding management research An introduction to epistemology. *SAGE Publications*, 53(9), 1689–1699.
- Kostakis, V., Roos, A., & Bauwens, M. (2016). Towards a political ecology of the digital economy: Socio-environmental implications of two competing value models. *Environmental Innovation and Societal Transitions*, *18*, 82–100.
- Langmaid, R. (2010). Co-creating the future. *International Journal of Market Research*, 52(1), 131–135.

- Makarov, E. I., Polyansky, K. K., Makarov, M. E., Nikolaeva, Y. R., & Shubina, E. A. (2019). Conceptual approaches to the quality system of dairy products based on the blockchain technology. *Studies in Computational Intelligence*, *826*, 1059–1069.
- Mannion, G. (2007). Going Spatial, Going Relational: Why "listening to children" and children's participation needs reframing. *Discourse*, 28(3), 405–420.
- McMillan, R. (2014). Bitcoin Exchange Mt. Gox Goes Offline Amid Allegations of \$350 Million Hack | Wired Enterprise | Wired.com. Retrieved September 30, 2019, from Wired website: http://archive.wired.com/wiredenterprise/2014/02/bitcoins-mt-goximplodes/
- Merriam, S. B. (2009). Qualitative research: A guide to design and implementation. In *The JosseyBass higher and adult education series* (4th ed., Vol. 2nd).
- Morrow, R., Rodriguez, A., & King, N. (2015). Colaizzi's descriptive phenomenological method. *The Psychologist*, *28*(8), 643–644.

Nakamoto, S. (2008). Bitcoin: A peer-to-peer electronic cash system.

- Niccolai, J. (2013, May 19). Bitcoin developer talks regulation, open source and the elusive Satoshi Nakamoto. Retrieved September 29, 2019, from PC Advisor website: https://www.pcworld.com/article/2039184/bitcoin-developer-talks-regulation-open-source-and-the-elusive-satoshi-nakamoto.html
- Onwuegbuzie, A., & Leech, N. (2005). The Role of Sampling in Qualitative Research. *Academic Exchange Quarterly*, 9(3), 280.
- Pitta, J. (1999). Requiem for a bright idea. In *Forbes*. Retrieved from https://web.archive.org/web/20170830214226/https://www.forbes.com/forbe s/1999/1101/6411390a.html
- Pradhan, R. P., Arvin, M. B., Nair, M., Bennett, S. E., & Bahmani, S. (2019). Shortterm and long-term dynamics of venture capital and economic growth in a digital economy: A study of European countries. *Technology in Society*, 57, 125– 134. https://doi.org/10.1016/j.techsoc.2018.11.002
- Qu, S. Q., & Dumay, J. (2011). The qualitative research interview. *Qualitative Research in Accounting and Management*, 8(3), 238–264.
- Rauchs, M., & Hileman, G. (2017). Global Cryptocurrency Benchmarking Study. *Cambridge Centre for Alternative Finance*.
- Reinharz, S., & Douglas, J. D. (1986). Creative Interviewing. *Contemporary Sociology*, 15(1), 124.

Sanafiah Faisal. (2003). Format Penelitian Sosial. Jakarta: PT RajaGrafindo Persada.

- Saunders, M., Lewis, P., & Thornhill, A. (2015). *Research Methods for Business Students* (7th ed.; N. Y. Pearson, Ed.). Pearson, New York.
- Schwab, K. (2017). The fourth industrial revolution.
- Sharov, M., & Kolkovsky, M. (2019). Blockchain and future monetary system. *Studies in Computational Intelligence*, *826*, 733–740.
- Shen, D., Urquhart, A., & Wang, P. (2019). Does twitter predict Bitcoin? *Economics Letters*, 174, 118–122.
- Solovykh, N. N., Koroleva, I. V., Stompeleva, E. S., Terskaya, G. A., & Aliev, V. M. (2019). Digital economy and socio-economic contradictions of information society. *Studies in Computational Intelligence*, 826, 655–662.
- Statswork. (2019). Sample size for qualitative research. *Marketing Research Review*, 3. Retrieved from http://www.quirks.com/articles/a2000/20001202.aspx%0Ahttp://www.statsw ork.com/services/data-analysis/qualitative-data-analysis/sample-sizequalitative-study/
- Steadman, I. (2013, May 11). Wary of Bitcoin? A guide to some other cryptocurrencies | Ars Technica. Retrieved September 29, 2019, from ARS Technica website: https://arstechnica.com/informationtechnology/2013/05/wary-of-bitcoin-a-guide-to-some-other-cryptocurrencies/
- Synergy of Blockchain Technologies and "Big Data" in Business Process Management of Economic Systems. (n.d.).
- The UK News. (2014, August 7). UK launches initiative to explore potential of virtual currencies. Retrieved September 29, 2019, from The UK News website: https://www.theuknews.com/news/224504231/uk-launches-initiative-to-explore-potential-of-virtual-currencies
- Thornhill, A., Saunders, M., and Lewis, P. (2009). Research methods for business students. *Prentice Hall, London*.
- Urquhart, A. mname. (2018). What Causes the Attention of Bitcoin? SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3097153
- Watanabe, C., Naveed, K., Tou, Y., & Neittaanmäki, P. (2018). Measuring GDP in the digital economy: Increasing dependence on uncaptured GDP. *Technological Forecasting and Social Change*, 137, 226–240.
- Wesley, M. (2018). An investigation into the diffusion of the cryptocurrency innovation (Jyväskylä University). Retrieved from https://jyx.jyu.fi/handle/123456789/58774

- Whittaker, Z. (2015). Bitstamp exchange hacked, \$5M worth of bitcoin stolen. Retrieved September 30, 2019, from ZDNet website: http://www.zdnet.com/article/bitstamp-bitcoin-exchange-suspended-amidhack-concerns-heres-what-we-know/
- Wiki, P. (2019). Cryptocurrency. Retrieved September 29, 2019, from Wikipedia website: https://en.wikipedia.org/wiki/Cryptocurrency#History
- Wulandari, D., & Subagio, A. (2015). Consumer Decision Making in Conventional Banks and Islamic Bank based on Quality of Service Perception. *Procedia - Social* and Behavioral Sciences, 211, 471–475.