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SCHOOL OF BUSINESS AND ECONOMICS

MASTER'S THESIS

**ACCEPTANCE OF CRYPTOCURRENCIES AS MEANS OF
PAYMENT: LESSONS FROM THE CASE OF SLOVENIA**

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SEBASTJAN BELE

AUTHORSHIP STATEMENT

The undersigned Sebastjan Bele, a student at the University of Ljubljana, School of Economics and Business, (hereafter: SEB LU), author of this written final work of studies with the title Acceptance of cryptocurrencies as a means of payment: lessons from the case of Slovenia, prepared under the supervision of doc. dr. Anastas Vangeli

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LIST OF ABBREVIATIONS

ATM – Automated Teller Machine
BTC – Bitcoin
CBDC – Central Bank Digital Currency

DeFi – Decentralised Finance

ETH – Ethereum

USD – The United States Dollar

EUR – The Euro

CHF – The Swiss Franc

NFT – Non-fungible Token

SEC – The U. S. Securities and Exchange Commission

UST – TerraUS stablecoin

INTRODUCTION

Today cryptocurrency payments are a global hot topic that has sparked many debates and discussions about their characteristics, legitimacy, and usage. Whether one is an advocate or a critic of cryptocurrencies, we cannot deny the fact that cryptocurrencies have had a huge impact on today's economy and society. One question that keeps repeating itself when it comes to cryptocurrencies is whether cryptocurrencies will be accepted as a payment method (Liu, Li, Karame & Asokan, 2018). This does not concern only big countries such as the United States of America or China, but also smaller countries like Slovenia. Despite Slovenia being a highly advanced and ambitious country when it comes to cryptocurrencies (Vidrih, Bivic Plankar & Blaj, 2020), a recent survey has shown that companies are not particularly keen on them. The decision of a company to accept cryptocurrencies as a form of payment can be conditioned both by prevailing trends in the industry or society and be influenced by cultural and ideological beliefs. A company's beliefs and values may play a role in its stance on cryptocurrencies and its willingness to adopt the technology. For some companies, the use of cryptocurrencies aligns with their beliefs about the importance of financial privacy, decentralization, and innovation. On the other hand, some companies may not feel comfortable using cryptocurrencies due to concerns about their stability, security, or regulatory implications. Ultimately, the choice to accept cryptocurrencies as a form of payment is a complex one, with various factors playing a role in how companies think and act on the issue.

Cryptocurrency payment in Slovenia has gained significant popularity, especially among small businesses such as bars, restaurants, galleries, optical stores, dental clinics, and sporting equipment retailers (Map.Bitcoin, 2022). As stated by GoCrypto (n.d.), over 1,300 establishments, including sports venues, bars, and shops, accept crypto payments. Slovenia has made a name for itself in the crypto industry despite its size. In 2011, Nejc Kodrič and Damijan Merlak founded Bitstamp, one of the first and oldest still active cryptocurrency exchanges (Bitcoin Magazine, 2018). As of 16 August 2022, Slovenia is considered a crypto-friendly country with no capital gains tax on cryptocurrencies (Cryptoslav, 2022) and the highest market capitalization of blockchain projects per capita. However, the government has proposed a 10% flat rate tax on converting crypto to fiat (Buckler, 2022). Ljubljana, the country's capital, ranks as the most crypto-friendly city in Europe, with over 500 venues accepting cryptocurrencies as payment (Map.Bitcoin, 2022). Despite its favorable stance on cryptocurrencies, Slovenia remains vigilant about potential risks, including tax evasion, money laundering, terrorist financing, and bypassing sanctions (Panetta, 2023). The country has implemented regulatory measures to monitor and control cryptocurrency usage, and it follows guidance from the Financial Stability Board (FSB) and the European Central Bank (ECB) on cryptocurrency regulation. While Slovenia has the highest market capitalization of blockchain projects per capita, initial coin offerings (ICOs) are still subject to taxation (Cryptoslav, 2022).

The research goals of the thesis are to assess and analyse the attitude of Slovenian companies towards cryptocurrencies as a means of payment and to explore their perceptions of these digital assets. Specifically, I aim to investigate the main reasons why companies would consider accepting cryptocurrencies and to identify the advantages and disadvantages of doing so. By conducting surveys, interviews, and case studies with a representative sample of Slovenian companies across different industries and sectors, I hope to gain insights into the factors that influence companies' attitudes towards cryptocurrencies and their potential role as payment methods in the Slovenian business environment. My research may also provide valuable information for companies, businesses, policymakers, financial institutions, and other stakeholders who are interested in the development of cryptocurrency markets in Slovenia.

In order to better understand the attitude of Slovenian companies towards cryptocurrencies, I will focus my research questions on the key knowledge-related and sociocultural factors that influence their decision to accept or reject these digital assets. One important factor is the level of awareness and knowledge that companies have about cryptocurrencies. Therefore, I will investigate the extent to which Slovenian companies are familiar with cryptocurrencies and the level of understanding they have about their use as a means of payment. Another important research question is the main reasons why companies would consider accepting cryptocurrencies as a means of payment. This could include factors such as cost savings, faster transaction times, increased security, or simply a desire to keep up with the latest trends, or projects and the image of a futuristic-oriented company. By identifying the primary motivations for companies to accept cryptocurrencies, I hope to gain a deeper understanding of the potential benefits of this payment method.

It's also critical to investigate the perceived benefits and drawbacks of Slovenian businesses accepting cryptocurrencies from a business, technological, or other perspective. This may take into account elements like volatility and the possibility of fraud or hacking. I wish to obtain a thorough understanding of the potential dangers and advantages of taking bitcoins as payment by listing these pros and cons. Furthermore, it's crucial to think about any risks and difficulties that can arise from taking cryptocurrency and how those problems might be solved. Regulation compliance and security precautions may be among these. I intend to present suggestions for how Slovenian businesses might securely and successfully incorporate cryptocurrency into their payment systems by outlining the potential dangers and difficulties.

The data for my research was collected through both secondary research methods, such as literature review, and primary research methods, including surveys and interviews with Slovenian companies.

In the first chapter of my thesis, I provide a comprehensive overview of cryptocurrencies as a means of payment. The chapter begins by examining the history and development of

cryptocurrencies, with a particular focus on Bitcoin, the first and most well-known cryptocurrency. I then compare the characteristics of fiat money and cryptocurrencies, including their level of decentralization, security, and anonymity. I objectively provide a thorough discussion of these pros and cons, drawing on relevant literature and research.

Chapter 2 touches upon current as well as historical trends and debates on the topic of cryptocurrencies. The chapter also provides an objective comparison of the advantages and disadvantages of using cryptocurrencies as a means of payment. The chapter concludes with analysis of international and Slovenian companies which accept cryptocurrencies and potential reasons behind such decision.

In the third chapter of my thesis, I describe the methodology and research framework used to collect and analyze primary data. I describe the sampling strategy logic to select participants for the study, as well as the methods employed to collect data, which included surveys and interviews. In the end, I provide a detailed discussion of the data analysis techniques used to identify trends, patterns, and themes in the data.

The findings of my primary data collection are presented in Chapter 4 along with a discussion of them. Statistical data on Slovenian businesses' awareness and acceptance of cryptocurrencies, as well as their perspectives on the benefits and drawbacks of utilizing cryptocurrencies as a form of payment, are presented together with both quantitative and qualitative findings. I also give a thorough analysis of the topics that came out of the participant interviews.

Finally, I examine the theoretical and commercial ramifications of my results in chapter 5. This includes a discussion of how cryptocurrencies can affect the business climate in Slovenia as well as the opportunities and difficulties they may provide for businesses doing business there. I also discuss the limitations of my study, including issues related to sample size and representativeness, and suggest potential areas of interest for future research in this area.

1 CRYPTOCURRENCIES AS MEANS OF PAYMENT

Since the creation of Bitcoin in 2008, there has not been a uniform single definition of what cryptocurrencies are. Frankenfield (2022) defines cryptocurrency as a form of digital asset that is based on a distributed network across a large number of computers. These decentralized networks are powered by so-called blockchain technology — a network, which is distributed across many devices such as computers, laptops, etc. (Hayes, 2022a). The main intention of advocates of cryptocurrencies is that cryptocurrencies become accepted as a payment method that transmits value across a decentralized network (Hayes, 2022b). There are multiple ways to categorize cryptocurrencies, however, the most common approach is to divide them into two categories: mainstream cryptocurrencies (predominantly Bitcoin and sometimes Ethereum) and Altcoins (Alternative coins or in some cases “meme coins”), (Hayes, 2022b). As of June 2022, there are more than 9900 cryptocurrencies in existence, with the most recognizable being Bitcoin, Ethereum, Solana, Cardano, Ripple, and Dogecoin (CoinMarketCap, 2022).

Decentralization gives cryptocurrencies unique characteristics as they are not issued by any central authority (e.g.: central banks, governments) which in theory takes away government power of interference or manipulation (Frankenfield, 2022). The majority of cryptocurrencies are using the so-called mining process as a way of creating new coins (Hong, 2022). Mining is a process in which high-performance hardware solves extremely complex computational math problems. Besides creating new coins, mining also confirms new network transactions and is therefore critical for blockchain network development and maintenance (Hong, 2022). The supply of a certain cryptocurrency is normally capped by the limits which are pre-defined by the underlying protocol of each digital asset. This is also referred to as the maximum supply. By having pre-set maximum supply, the inflation rate of a cryptocurrency can be much more controlled, which can in the long-term has a positive effect on cryptocurrency value (Binance Academy, 2019).

The main goal of advocates of cryptocurrencies is that cryptocurrencies become accepted as real currency and potentially replace fiat as a payment method. Supporters of cryptocurrencies argue (Reiff, 2022a) that cryptocurrencies such as Bitcoin, would be a better alternative to fiat money due to several of their key features:

Lower storage and transfer cost – Cryptocurrencies can be stored on software wallets, which are often free, or on special hardware or “cold” wallets (Conway, 2021). As of 30 June 2022, the average transaction value of Bitcoin was 11 BTC (or \$211,055) (median transaction value was 0.028 BTC or (\$540.91) with an average transaction fee of only 0.000053 BTC (or \$1.02) (BitInfoCharts, 2022).

Accessibility – Cryptocurrencies offer an alternative to fiat money, without needing physical infrastructures such as banks and ATMs. For example, Bitcoin offers individuals, banks, and businesses to send and receive payments anywhere, at any given time, without a need for a bank account (Bitcoin.org, n. d.).

Scarcity – The majority of cryptocurrencies have been following Bitcoin's limited supply principle while others, like Dogecoin, do not have a cap on the amount that can be issued. (DeMatteo, 2021). When demand for a currency increases while the supply remains constant, it can lead to an increase in the value of the currency. This is because as more people want to buy the currency, the price goes up. Inflation, on the other hand, occurs when the overall level of prices for goods and services in an economy is rising. If the supply of a currency is fixed, and the demand for it increases, it can prevent inflation from occurring as the increased demand will be met by the same fixed supply, rather than by an increase in the supply of the currency. However, this doesn't necessarily mean the currency will never experience inflation. It depends on many factors such as economic conditions, government policies, and global events. Additionally, if a currency has a fixed supply and demand for it does not increase, then the value of the currency can decrease and lead to deflation, which is a decrease in the overall level of prices (Kelleher, 2022).

Possibility of a global movement of currencies without additional cost and in a short period of time – As already mentioned, users can send cryptocurrency to other wallets without geographical limitation (miners fee apply) (Reiff, 2022a). As of 16 March 2022, the average transaction fee for Bitcoin is 0.000036 BTC (or \$1.45) and the transaction takes 9m 44s (BitInfoCharts, 2022).

The inability of counterfeiting – It is technically possible to counterfeit cryptocurrency, but it is extremely difficult to do so in practice. Cryptocurrency transactions are verified and recorded on a decentralized public ledger called a blockchain. This ledger is maintained by a network of computers, known as nodes, that work together to ensure the integrity of the data. Because of this, it is very difficult to make fake transactions or counterfeit cryptocurrency without being detected. Additionally, many cryptocurrencies use advanced encryption methods to secure transactions, making it even harder to counterfeit them (Lisa, 2021).

Zero government involvement – The majority of cryptocurrencies are decentralized, which means that no government, financial body, or other institutes can control it (indirectly influencing price or supply) (Lee, 2019). The most notable exceptions are so-called Central Bank Digital Currencies (CBDC) which are a digital form of a country's fiat currency and are issued and backed by the country's central bank. In simpler terms, they are a digital version of a country's fiat currency, backed by the government (Best, 2022a).

Some notable large government and financial institutions such as the European Central Bank, International Monetary Fund, and US Securities and Exchange Commission do not recognize cryptocurrencies as money that could be used to conduct money settlements in

financial market infrastructures yet. European Central Bank defined crypto assets as: “a new type of asset recorded in digital form and enabled by the use of cryptography that is not and does not represent a financial claim on, or a liability of, any identifiable entity,” and further argues that crypto-assets do not fulfil the three main functions of money (medium of exchange, a unit of account and a store value; European Central Bank, 2019). The International Monetary Fund’s main concerns about crypto assets are its lack of operational, governance, and risk practices (Amaro, 2021). Gary Gensler, the head of the U.S. Securities and Exchange Commission (SEC), has said that cryptocurrency exchanges that do not follow the rules set by the SEC may be subject to enforcement actions. He believes that cryptocurrencies such as Bitcoin and Ethereum should be considered securities and thus fall under the jurisdiction of the SEC (Duggan, 2022).

1.1 Bitcoin as means of payment

1.1.1 General description

Bitcoin is a virtual currency that is designed to play the role of money, which is outside the control of any individual, group, or entity (for example banks), and removes the need for an intermediary to conduct a financial transaction (Ashford, 2022). The founder under the pseudonym Satoshi Nakamoto (2008) describes Bitcoin as a purely peer-to-peer version of electronic cash that allows online payments to be sent directly from one party to another without going through a financial institution. Bitcoin network is based on so-called blockchain technology. The blockchain allows for a decentralized approach to verifying transactions and recording wealth holdings, which makes it a secure and transparent way of conducting financial transactions (Jakšič & Marinč, 2017). Nodes – a computer or hardware device which is connected to the blockchain network - are responsible for approving or rejecting a transaction that occurred on Bitcoin's network and enable Bitcoin's electronic payment system to rely on cryptographic proof instead of trust (Nakamoto, 2008). Each transaction is approved individually, and it occurs after all the transactions contained in the block are approved. After its approval transaction is added to the existing blockchain and is broadcast to other nodes (Conway, 2021). Every individual can participate in Bitcoin's network as a node (storage space is needed to download the entire blockchain and its history of transactions). As of July 2022, there are 15955 active nodes (Bitnodes, 2022). Furthermore, the more participants there are the more stable and secure the blockchain network is (Conway, 2021).

The total supply of Bitcoin is limited to 21 million coins and is expected to be reached by the year 2140 (Conway, 2021). As of July 2022, there are currently 19,086,762 Bitcoins in the circulating supply (Coinmarketcap, 2022). Bitcoin uses proof of work (POW) – a system that requires miners to prove their effort (time and energy to run the computer hardware) in the process of transaction in order to be rewarded (Conway, 2021). Bitcoin miners are solving complex mathematical equations and confirming the legitimacy of a transaction.

After successful confirmation of the transaction, the miner adds the transaction to a block (multiple blocks form the blockchain). Different miners send different transactions to the block and once it's filled, the miners get rewarded with Bitcoins (Conway, 2021). After every 210,000 blocks are mined the event so-called »halving« takes place (Tran, Graves & Hussey, 2022). Halving reduces the number of coins as a reward for each block mined by 50 % which in theory should reduce inflation and increase the demand for Bitcoin (Conway, 2021). The theory of supply and demand (Whelan, Msefer & Choge, 2001) states that when the supply of a product is low, the demand for it increases which can cause the price to rise. In the case of Bitcoin, halving events decrease the supply of new coins that are mined, which can cause an increase in demand and price. The Bitcoin mining algorithm also adjusts the difficulty rate of creating new blocks to maintain a balance between the number of miners and the time it takes to find new blocks (Cointelegraph, 2021). This ensures that the incentive for miners to continue mining remains even with a lower reward. As of July 2022, there were three halvings that occurred (Cointelegraph, 2021):

Table 1: Process of halving.

	New BTC per block before halving	New BTC per block after halving	Price on Halving day	Price after 150 days since Halving
2012 Halving	50 BTC	25 BTC	\$ 12.35	\$ 127.00
2016 Halving	25 BTC	12.5 BTC	\$ 650.53	\$ 758.81
2020 Halving	12.5 BTC	6.25 BTC	\$ 8821.42	\$ 10,943.00

Source: Cointelegraph (2021).

From the historical data, we can conclude that the halving system worked so far, however, one needs to be aware of speculations, hype, and volatility that happen in anticipation of halving (Conway, 2021).

1.1.2 The history of Bitcoin

Arguably the two most important events in the history of Bitcoin are the creation and publication of the Bitcoin white paper in 2008 by the pseudonymous creator Satoshi Nakamoto (2008), which introduced the concept of a decentralized digital currency that operates on a peer-to-peer network and the first real-world transaction using Bitcoin, where a programmer Laszlo Hanyecz bought two pizzas for 10,000 Bitcoins in 2010 (Hankin, 2019). This event

is widely considered as the day when Bitcoin's value as a medium of exchange was established. Other important events in the history of Bitcoin can be seen in the appendix. One must be aware that during a period of growth (or as it is known “bull run”), Bitcoin also had declining phases and pullbacks before reaching an all-time-high price (TradingView, n.d.).

As of July 26, 2022, Bitcoin is trading at \$20,939 which is approximately a 70% drop from the all-time-high price of \$68,000 (TradingView, n. d.). The price rise in the period between 2020 and 2021 (the time-high price happened in November 2021), was followed by the price downfall or “bear market” as a result of numerous events that have influenced the price of Bitcoin. Like legacy markets, the cryptocurrency market has seen a big sell-off as investors are losing confidence in the market (Gura, 2022). Furthermore, the crypto crash in 2022 was boosted by the so-called “black swan event” which was caused by the loss of the peg between stable coin TerraUST and the US dollar (Sánchez, 2022). A peg is when the value of a coin is connected to the value of another coin or currency, like the US dollar. The Luna crash was caused by its connection to UST, the algorithmic stablecoin of the Terra network. A large amount of UST was unstaked and quickly sold off, causing its price to drop to \$0.91 from \$1, leading to increased purchases of Luna using UST (as traders started to change 90 cents worth of UST for \$1 of Luna). This, combined with a broader crypto market crash, caused the UST to depeg and the algorithm to fail in maintaining its \$1 price. This led to a panic sell-off of both UST and Luna, resulting in an increase in the circulating supply of Luna and a loss of confidence in the project (Q.ai - Powering a Personal Wealth Movement, 2022). As a result, Luna became worthless and was delisted from crypto exchanges, which further caused a domino effect in which Luna investors lost around \$45 billion (Gibson, 2022). Electricity blackout in the Xinjiang region (China was the largest crypto miner until late 2021) (Best, 2022b), stricter regulations (Hammond, Ehret, 2022), an overall decline in confidence in markets (Cox, 2022), rumours of MicroStrategy facing a margin call (Ng, 2022), and liquidation of Three Arrows Capital (Irwin, 2022) also heavily effected not just the price of Bitcoin but also the price of other cryptocurrencies. These developments have reinforced the critical comments on cryptocurrencies being just another financial bubble, or even some form of »Ponzi scheme « (Bariviera et al., 2017).

1.2 Cryptocurrencies vs Fiat money as means of payment

Fiat money is described as a medium of exchange that is not a commercial, consumer, or producer good (Hoppe, 1994). Today, most payment currencies are fiat currencies. Fiat money is issued by governments and its value is derived from the relationship between supply and demand and the stability of the government which is issuing it and it is not backed by a rare commodity such as gold or silver for example (Chen, 2022). In the past governments used the so-called “Gold Standard” which means government paper money’s value was directly linked to gold (Lioudis, 2022).

For fiat money to be a good currency it needs to address the nation's economic needs of its monetary unit, which can be further sub-categorized in three key characteristics (Chen, 2022):

Storing value – a store of value can be a currency, commodity, or asset, that maintains or even increases its value over time (but does not depreciate in value) (CFI Team, 2022).

Unit of account – is a common measure of value across the economy. It also provides direct information on the worth of an object/service etc. (Federal Reserve Bank of St. Louis, 2021).

Facilitating exchange – an intermediary instrument or system that is used to conduct and facilitate the sale, trade, and purchase of goods/services between parties. To function as a medium of exchange, a system/instrument must represent a standard of value and must be accepted by both parties (Chen, 2020a).

Supporters of cryptocurrencies often view traditional fiat money with scepticism and criticism, seeing it as prone to inflation, subject to centralized control, and lacking transparency, and they often criticize monetary policies and financial institutions responsible for it (Ammous, 2018). On the other hand, many well-known economists and politicians such as Christine Lagarde, President of the European Central Bank (Koc, 2022), Hillary Clinton, former First Lady and US Secretary of State (Bloomberg News, 2021), Nouriel Roubini, economist, economist consultant, and writer (Mollman, 2022) and Warren Buffet, entrepreneur and investor (Mollman, 2023), see cryptocurrencies as a failed attempt to disrupt already well-established financial systems and fiat money. Table 1 below provides a comparative analysis of the main cryptocurrencies (BTC, ETH..) and the main fiat currencies (USD, EUR, CHF) based on an overview of key literature in the field, about their three main characteristics. The period of comparison is between 2008 (the emergence of Bitcoin) and 2021.

Table 2: Characteristic comparison between cryptocurrencies and fiat money.

	Cryptocurrencies	Fiat Money
Issued by governments?	No	Yes
Limited Supply?	Depending on cryptocurrency	An unlimited supply, controlled by the Central Banks
Physical form?	Digital form only	Both digital and physical
The exchange of value?	Through blockchain	Through traditional financial systems
Need for an intermediary to conduct a digital financial transaction?	No intermediary	Intermediary
Based on commodity?	A small percentage of cryptocurrencies (stablecoins) are backed by precious metals	Fiat money is not based on commodities
Irreversibility of transactions?	No	Yes
Legal tender?	Yes - El Salvador and the Central African Republic	Yes, if declared by a domestic government
Transaction time?	Non-stop	Only during working time
Transaction fees?	Yes	Yes
Geographical limitations?	No	No

Source: Best (2022c); BitInfoCharts (2022); Browne (2022); Chen (2022); Coinbase (n.d.); CoinMarketCap (2021); CoinMarketCap (2022); Fowler (2022); Frankefield (2022); GoCardLess (2022); Kim (2022); Lee (2019); Lowry (2021); Phillips (2022)

Supporters of cryptocurrencies often argue that cryptocurrencies are a better alternative to fiat money due to these characteristics:

Limited supply and anti-inflation protocols – With its unlimited supply, fiat money has a high probability of creating so-called bubbles – Dow and Gorton (1993) argue that money is valuable in equilibrium despite not having no intrinsic value. Hyperinflation (rapid, out-of-control general price increases in the economy) is another disadvantage of fiat money, resulting from excessive money supply and loss of confidence in the economy or monetary system (Kenton, 2022). Most cryptocurrencies have limited supply, but those that have an infinite total supply like Ethereum have different anti-inflation protocols in place. For example, Ethereum has a cap of a maximum of 18 million new Ethereum tokens per year and a process called »burning tokens« – an act of sending tokens to an account that stores them and never puts them back into circulation (Barsby, 2022). Furthermore, Bitcoin also got the nickname »digital gold« due to similarities with gold (a hedge against inflation, finite amount, low correlations to equities, and store of value outside of traditional financial systems) (Eckert 2022). Ammous (2018) defines scarcity as one of the fundamentals of all economies and furthermore argues that for money to address all nation's economic needs, it needs to be scarce, durable, and difficult to produce – all characteristics of some cryptocurrencies (e.g. Bitcoin).

Store of value – The purchasing power of traditional fiat currencies, such as the US dollar, Euro, and Swiss franc, has decreased over time, with the dollar experiencing a 27.5% decrease (Webster, 2022a), the Euro experiencing a 22.5% decrease (Webster, 2022b), and the Swiss franc experiencing roughly 3% decrease (Webster, 2022c) from 2008 to 2022. Meanwhile, the Turkish lira saw a significant drop in purchasing power at 75% (Webster, 2022d). Ammous (2018) argues that Bitcoin in particular can be a better store of value than traditional fiat as it has a high degree of credibility, predictability of supply and it is resilient to manipulation.

Decentralization – Cryptocurrencies represent a new, decentralized paradigm for money since they are not issued by governments and do not require intermediaries for their transactions. This decentralized system operates without centralized intermediaries such as banks and monetary institutions, making it possible for parties to conduct transactions directly without the need for a trusted third party. This creates a new level of financial freedom, giving people greater control over their own finances and enabling them to transact with others without the need for permission from a centralized authority (Frankfield, 2022).

Security and privacy – One of the most significant benefits is their resistance to counterfeiting due to the use of cryptography (Lisa, 2021). Additionally, the decentralized nature of cryptocurrencies provides greater security and privacy for transactions, making them less susceptible to fraud (Frankfield, 2022). These features make cryptocurrencies an attractive option for those who value decentralization, privacy, and security in their financial transactions.

Access to financial services – Cryptocurrencies can be useful in developing countries with unstable local currencies, corruption, and a lack of traditional financial infrastructure (ResearchFDI, 2022).

When faced with the criticism of high volatility, supporters of cryptocurrencies argue that the most important cryptocurrency Bitcoin tends to be rather volatile in the short run but fluctuates less compared to other cryptocurrencies over a slightly longer period of time. Furthermore, Bitcoin is showing a tendency to stabilize, and its current average monthly fluctuations are similar to fluctuations of currencies of developing countries. Additionally, the price movements in the cryptocurrency market may be predictable based on the movements in fiat currency markets (Levulytė & Šapkauskienė, 2021).

Despite the technological advancements made with blockchain and cryptocurrencies, there are still several drawbacks and disadvantages to these digital assets. Many established economists and finance experts are critical of cryptocurrencies for various reasons. Some of the most common criticisms include:

Lack of intrinsic value – Cryptocurrencies have no intrinsic value, which makes their worth solely dependent on market supply and demand. This lack of intrinsic value leads to significant price volatility, hindering their ability to compete with established global currencies such as the U.S. dollar, euro, British pound, and Japanese yen (Lapin, 2021).

High volatility – The high volatility of cryptocurrencies makes them unable to compete with other global currencies currently in use, such as the U.S. dollar, euro, British pound, and Japanese yen. Price volatility also makes it harder for market participants to know the value of goods and services, which partly contradicts one of the three key characteristics of a good currency, a unit of account (Ciaian et al., 2016).

Lack of mass adoption – Fiat money, or government-issued currency, remains the dominant form of currency worldwide, widely accepted and used as a medium of exchange and unit of account (Chen, 2020a; Mesk, n.d.). While cryptocurrencies have gained in popularity and adoption over the past decade, they still lag behind fiat money in terms of global acceptance (Chen, 2022). Currently, every country in the world has a legal tender which is fiat money, while cryptocurrencies are still not universally recognized as legal tender (Browne, 2022). This lack of widespread acceptance and regulation presents a significant challenge for the further adoption of cryptocurrencies and highlights the need for continued development and innovation in the crypto industry.

Speculative nature of assets – The time at which a cryptocurrency is acquired can significantly impact its value, potentially leading to bigger losses in the short to medium term compared to the slow and steady loss of purchasing power in fiat currencies (Reiff, 2022b). The predictability of price movements in the cryptocurrency market based on fiat currency fluctuations further highlights the speculative nature of these assets.

Lack of historical data – cryptocurrencies are relatively new and have not yet experienced significant macro-economic events such as the global financial crisis of 2008, which was marked by the collapse of Lehman Brothers and resulted in widespread financial market turmoil, caused significant economic damage and loss of confidence in financial systems (Singh, 2022).

Trustworthiness and transparency of exchanges – There have been concerns about the trustworthiness and transparency of exchanges, with some high-profile cases highlighting the risk of cryptocurrencies (Reiff, 2023).

Need for infrastructure – Cryptocurrencies require an internet connection to facilitate transactions, and there have been security concerns related to software exploits, leading to the theft of billions of dollars worth of assets (Kubinec, 2022), which can be problematic in some countries.

The debate over whether cryptocurrencies can serve as a viable alternative to fiat money is not just a pros and cons debate; it also represents a battle of ideology and beliefs. Supporters of cryptocurrencies often hold libertarian views, emphasizing decentralization, privacy, and the removal of centralized control as key advantages of digital assets. On the other hand, opponents of cryptocurrencies often hold more traditional views, emphasizing the importance of government-backed currencies, stability, and regulation as key components of a functioning financial system (Wash, 2022). These opposing views reflect fundamental differences in how people perceive the role of money and finance in society. Nevertheless, cryptocurrencies remain a hot topic of discussion in the financial world, and their potential role in the future of money continues to be debated.

2 CURRENT TRENDS AND DEBATES

2.1 Historical events and trends

Despite being relatively young, the crypto space has seen a lot of different trends and innovations due to the quickly evolving technology and low cost of entry. The history of cryptocurrencies starts in 2008, when the author under the pseudonym Satoshi Nakamoto posted a whitepaper which describes Bitcoin, its features, and its purpose (Nakamoto, 2008). The last big event that happened in the crypto industry was the collapse of one of the biggest crypto exchanges FTX, which caused great losses for the whole crypto industry. Table 3 represents different trends and events up to 31.12.2022.

Table 3: Events and trends in crypto space until 31.12.2022.

Year	Events and Trends
2009	– The first platform for Bitcoin transactions. – First Bitcoin transaction.
2010	– The first purchase using Bitcoin (10,000 Bitcoins for two pizzas. At the time 10.000 Bitcoins were worth approximately 41\$). – The appearance of first cryptocurrency exchanges.
2011	– The Silk Road (an online marketplace for illegal drugs) was launched, and it used Bitcoin as a means of payment due to its characteristic of anonymity of the owner. – Bitcoin reached a milestone price of 1\$ per 1 Bitcoin. – Satoshi Nakamoto mysteriously disappeared and has not been found since.
2012	– Hacking scandals, however the popularity and price of Bitcoin kept rising. – WordPress becomes the first major company to accept Bitcoin as payment. – First halving (reward went from 50 Bitcoins to 25; this boosted the price, going from \$ 12,07 in November 2012 to over \$ 1.012 a year later (return of more than 8.000 %).
2013	– Bitpay announces that it surpassed 10,000 Bitcoin merchant transactions without a single report of payment fraud (BitPay, 2013). – Price moves above \$100. – The people of China can freely participate in the Bitcoin market; however, this decision is soon revoked. Throughout the entire history of Bitcoins and cryptocurrencies, the Chinese government has been banning and unbanning cryptocurrencies and their usage due to different reasons. – By May, there were 10 different cryptocurrencies available on the market including Litecoin and Ripple.
2014	– The bankruptcy of the biggest Bitcoin exchange at the time Mt. Gox. – Bitcoin is considered as a property in the United States property (subject to capital gains tax). – Retailers getting on board (Dell, Microsoft, Paypal subsidiary Braintree and Overstock).

Table continues

Table 4: Events and trends in crypto space until 31.12.2022 (continuing).

Year	Events and trends
2015	– The number of retailers who accept Bitcoin surpassed 100.000. – The EU High Court decided that Bitcoin is not subject to value-added sales tax. – The Ethereum network was launched, which set foundations for development of smart contracts and decentralized finance (DeFi).
2016	– The approval of the Japanese government which put cryptocurrencies alongside real money (able to make payments and transfers). – Second halving. – The hacking attack on Bitfinex (exchange platform) which heisted almost 120.000 Bitcoins. – Emergence of Initial Coin Offerings (ICOs).
2017	– The criticism from the world's biggest banks such as JP Morgan Chase (Son, Levitt & Louis, 2017) and Goldman Sachs (Monaghan, 2017), – Bitcoin reaches a price of \$ 20.089. – The cryptocurrency market accounts for over 2000 digital currencies with new ones being invented everyday.
2018	– Bitcoin's price fell to \$ 5.880 by August 2018 because of different events such as the advertisement ban of cryptocurrencies from Facebook, Google, and Twitter, disabling usage of credit cards for Bitcoin purchasing from Lloyds Banking Group and Virgin Money. – Fidelity Investments announced its own institutional platform BlackRock also revealing plans for a cryptocurrency working group.
2019	– The former president of the United States of America, Donald Trump, announced additional tariffs on goods and products that originate from China which pushed the price up by 9% in two days as Bitcoin is seen as potential disaster hedge.
2020	– The covid-19 pandemic drastically infected everyday lives and stock, crypto, and other markets were no exception. On March 12 Bitcoin's price dropped by 50 % in two days, from \$ 9.000 to \$ 4.000. – Big companies such as MicroStrategy, Galaxy Digital Holdings, Block Inc., and Coinbase Global buying and adding Bitcoin to their portfolios.

Table continues

Table 5: Events and trends in crypto space until 31.12.2022 (continuing).

Year	Events and trends
2020	– A \$2 trillion coronavirus stimulus package was distributed in the United States of America. – The third halving. – Jack Dorsey now former CEO of Twitter announcing »<i>Bitcoin is the future of Twitter</i>«. – PayPal launches a new service that allows its 346 million customers to buy/hold/sell cryptocurrencies through PayPal accounts. The “DeFi” Summer – period of exponential growth of infrastructure which transformed the DeFi sector.
2021	– Bitcoin went on a bull run to reach its current all-time-high price of over \$ 68.000 in November 2021. – Tesla announces its investment of \$1.5 billion into Bitcoin and in March Tesla announces the option of buying a Tesla car with Bitcoins. – Morgan Stanley became the first big U.S. bank to offer Bitcoin funds to its clients. – El Salvador recognizes Bitcoin as a legal tender and buys the first 200 Bitcoins. – Germany announces plans for greater mainstream crypto adoption, allowing institutional funds to hold up to 20 % of crypto assets on their balance sheet. - Many altcoins reach their all-time highs (which have not been broken since), due to the favourable conditions.
2022	– In January 2022, the Bitcoin price fell below \$40.000 for the first time in five months. – KPMG Canada added Bitcoin and Ethereum to its corporate treasury. – In March, the U.S. president Biden signed an executive order to examine the pros and cons of crypto and to regulate the industry regarding illicit activity, financial stability, consumer protection, and the environment. – On April 28th, The Central African Republic announces Bitcoin as a legal tender.

Table continues

Table 6: Events and trends in crypto space until 31.12.2022 (continuing).

Year	Events and trends
2022	- In June, Gary Gensler, the chairman of the SEC, categorizes Bitcoin as a commodity. - In November, Bitcoin reaches the lowest price point in two years. - In early November 2022, FTX suffered a liquidity crisis due to potential leverage and solvency concerns related to affiliated trading firm Alameda Research, as reported by CoinDesk. FTX's search for bailout funds was unsuccessful, and Binance, a rival exchange, considered buying portions of the company but later backed out. FTX's collapse caused the volatile crypto market to lose billions and fall below a \$1 trillion valuation. On November 11, 2022, FTX's CEO resigned, and the company filed for bankruptcy.

Source: Bambrough (2020); BitPay (2013); Bitcurate (2018); Bloomberg News (2013); Bovaird (2019); Browne & Imbert (2018); Castillo (2018); Chohan (2022); Cointelegraph (2021); De & Nelson (2022); DeMatteo (2022); Drawbaugh & Tample-West (2014); Farivar (2012); Farmbrough (2018); FinTech Futures (2015); Graves & Phillips (2022); Hankin (2019); Herrera (2022); Hristov (2023); Kaaru (2022); Kahl (2021); Kalla & Chwierut (2021); Kay (2021); KPMG (2022); Lee (2013); Lee (2020); Lopez & Livni (2021); Monaghan (2017); Moreland (2019); Morris (2017); Nagarajan (2020); Nemoto & Sako (2016); PayPal (2020); Reiff (2023); Rizzo (2021); Rooney (2020); Sedgwick (2020); Sergeenkov (2022); Shed (2021); Son (2021); Son, Levitt, & Louis (2017); TradingView (2016); Tradingview (n.d.); United States Securities and Exchange Commission (2021).

2.2 International trends and debates

Since the creation of a new cryptocurrency requires almost zero capital and an increasing amount of capital coming into the crypto industry, trends tend to change relatively fast (Fleck, 2022). The industry which was once dominated by Bitcoin which in 2014 had 79% of the total market cap (Fleek, 2022), saw new projects and cryptocurrencies emerging, which caused a decline in Bitcoin's total market cap share which now stands at 40% as of 16 August 2022 (Slickcharts, 2022). According to Statista Research Department (2022b), in 2021 investments in the blockchain and cryptocurrency sectors (venture capitals, private equity, and mergers and acquisitions deals) attracted over \$30 billion globally or in other words, nearly six times as much as they had in 2020. In 2021, at its peak, the total crypto market capitalization was valued at just over \$3 trillion and despite falling to \$1.2 trillion (CoinGecko, 2022) in the last few years and the number of users is expected to rise in the future (Hon et al., 2022).

According to Howarth (2022) the latest trends in the crypto space are:

Institutional adoption of cryptocurrencies – As of 8 August 2022, Grayscale Investment's (the leader in institutional investments in cryptocurrency) net assets under management amounted to roughly \$21 billion dollars (Grayscale, 2022). Despite the recent drop in net assets from \$60.9 billion in November 2021 (Grayscale, 2021), the higher time frame is still showing increased demand and increased institutional adoption of cryptocurrencies (in 2020 Grayscale net total assets under management accounted for \$2 billion dollars – roughly 1000% increase in two years: Helmes, 2021).

Application of DeFi (Decentralised finance) – Decentralized finance is a concept that involves traditional financial transactions which are conducted on the blockchain. The advantage of DeFi over traditional payments or transfers is that DeFi does not require financial intermediaries to conduct a transaction. This is possible using so-called smart contracts (Howarth, 2022). Search interest in "*Decentralized finance*" has risen by 4,100% in the last 5 years (Exploding topics, 2022a).

NFTs – NFT or Non-fungible token is one of kind digital asset which connects ownership to specific physical or digital items (DeNicola, 2022). The difference between fungible and non-fungible items is that non-fungible items are not interchangeable, and each token has unique properties which are not worth the same as other similar tokens (DeNicola, 2022). NFTs can be found in many different digital forms such as drawings, music, videos, pictures, and virtual real estate (Clark, 2021). Search interest in "*non-fungible tokens*" has grown by 1,500% in the last 2 years (Exploding Topics, 2022b) and search interest for "*cryptopunks*" (one of the most well-known NFT collections) has risen by 3,000% in the last two years (Exploding Topics, 2022c). Furthermore, the NFT market is growing at a compound annual growth rate (CAGR) of 35.27% and it is forecasted to achieve incremental growth of \$147.24 billion in the period of 2021-2026 (Maida, 2022).

Government regulations – Large government and financial institutions such as the European Central Bank, International Monetary Fund, and Securities and Exchange Commission do not recognize cryptocurrencies as money however government bodies have started implementing different regulations. As of July 1, 2022 the European Union requires all cryptocurrency businesses to operate with a license and requires stablecoin issuers to hold reserves like banks in order for better regulation of the crypto sector (Dention, 2022). In December 2020, Financial Crimes Enforcement Network proposed a law which would require exchanges to submit a report and identification of the wallet owner in case of a transaction from exchange to wallet not hosted on exchange for values over \$10,000. The same rules would apply for unhosted wallet transactions of \$3,000 or more (Weinberger, 2021). In March 2022, the president of the United States of America Joe Biden signed an executive order which will provide a "*whole-of-government approach to addressing the risks and harnessing the potential benefits of digital assets and their underlying technology*" (Adams, 2022). Asian countries such as South Korea and Japan have also tightened up regulations –

In December 2021, Financial Service Agency in Japan proposed new legislation in order to regulate issuers of stablecoins in order to limit the possibility of money laundering and to address risks to customers (Tezuka et al., 2021). The South Korean government introduced legislation that demands that cryptocurrency investors use the same name on their virtual wallet accounts as they use on their bank accounts (Stangarone, 2021).

Stablecoins & CBDC – Stablecoins are cryptocurrencies whose value is connected to certain other assets like gold or the United States dollar. Due to less volatility, stablecoins are especially popular in Decentralized Finance (DeFi) which is using cryptocurrencies for payments and loans (Best, 2022a). Due to that characteristic stablecoins are preferred to “traditional” cryptocurrencies whose market can rapidly change in size due to changing transaction fees or price fluctuations (Best, 2022a). As of 16 August 2022, the total market cap for stablecoins is valued at \$151 billion which is roughly 10x times bigger than the total market cap for stablecoins in 2020 (BTCtools, 2022). Furthermore, stablecoins are seen as a prototype or inspiration for Central Bank Digital Currencies (CBDC) (Best, 2022a). CBDCs are electronic cash (based on national currency) which enable businesses and individuals to make direct electronic financial transactions without the need for a middleman (commercial banks) (Smith, 2022). According to International Monetary Fund, over 100 countries are already exploring CBDCs with countries like the Bahamas and China already having CBDCs in circulation (Georgieva, 2022).

2.3 Trends and debates in Slovenia

Despite its size, Slovenia is well known in the crypto industry. In 2011 Nejc Kodrič and Damijan Merlak founded Bitstamp – one of the first cryptocurrencies exchange that is still active today and makes it the oldest still active exchange (Bitcoin Magazine, 2018). Today, Slovenia has the highest market capitalization of blockchain projects per capita, and no capital gains tax on cryptocurrencies as of 16 August 2022 (Cryptoslav, 2022), however, the government proposed a tax of 10% flat rate when exchanging crypto for fiat (Buckler, 2022).

Slovenia has been considered by some as the most crypto-friendly nation in the world, with a significant portion of its population invested in cryptocurrencies. In a survey conducted in 2023 by the World Economic Forum, it was found that approximately 18% of the country's population has some sort of investment in cryptocurrencies (Fontana, 2023). Furthermore, Ljubljana is the most crypto-friendly city in Europe with over 500 venues accepting cryptocurrencies as a payment (Map.Bitcoin, 2022). This high level of interest in digital assets may be attributed to several factors, such as Slovenia's favorable regulatory environment and the country's tech-savvy population. Additionally, the Slovenian government has been actively promoting blockchain technology and has launched several initiatives aimed at fostering its development (Government Communication Office, 2019).

With the recent rapid development of AI tools, Slovenia has also emerged as one of the countries with a strong interest in the intersection of AI and crypto. In a recent study conducted by CoinGecko, Slovenia ranked second in terms of curiosity about AI crypto, with a total score of 835 based on its performance across more than half of the search terms (Qian, 2023). This growing interest in AI crypto in Slovenia is not surprising, given the country's track record of embracing both AI and blockchain technologies. The increasing interest in AI crypto in Slovenia and other countries highlights the potential of these technologies to transform various industries and sectors.

New crypto projects such as Bitcoin City, which will enable visitors to pay for goods and services using selected cryptocurrencies via the GoCrypto payment system (BTC, 2021), further confirm that Slovenia is a crypto-friendly and crypto-savvy country. The main trend in Slovenia as of 16 August 2022, is the adoption of cryptocurrencies as a means of payment. Currently, there are over 1300 locations where customers can pay with cryptocurrencies including big retailers such as Tuš, sports stores like Intersport, as well as bars, restaurants, galleries, clothing stores, beauty salons, hotels, and others (Map.Bitcoin, 2022).

2.4 Advantages and disadvantages of cryptocurrencies as payments

2.4.1 Global context

Accepting cryptocurrencies as payment has both advantages and disadvantages. As of 10 August 2022, approximately 29.880 venues around the world accept cryptocurrencies as means of payment (Coinmap.org, 2022). The trend will likely increase according to a survey conducted by Deloitte (Tanco, 2022), as nearly 75% of merchants, who took part in the survey, are getting ready to accept crypto as means of payment. To get a better understanding of the advantages and disadvantages of cryptocurrencies as a means of payment, an interview with Mr. Žan Poglajen, Marketing Manager at Elly (previously known as GoCrypto) was conducted. According to Mr. Poglajen, there are additional advantages of cryptocurrencies to those mentioned in chapter 1.2.

One advantage is the elimination of chargebacks, as once a transaction is completed with cryptocurrencies, it cannot be altered, thus eliminating the potential for fraudulent chargebacks (Liquid, n.d.). Another advantage is the ability to reach new customers, as the number of global crypto owners could reach 1 billion by the end of 2022 (Hon et al., 2022). Furthermore, offering a crypto payment option can offer customers more flexibility and result in future sales (Binance, 2021). Lastly, setting up a cryptocurrency payment system is simple, with numerous software options available such as BTCPay Server, GoCrypto, BinancePay, and CoinGate (GoCrypto, n.d.; Binance, 2021; CoinGate, 2022). To add to the disadvantages of cryptocurrencies as payment which are mentioned in chapter 1.3, Heaslip (2021) states, that the lack of chargebacks is an advantage of cryptocurrency payments, but it can also create inefficiencies in case of refunds and returns.

Lodge (2022) also points out that the absence of government protection in cryptocurrency transactions is a disadvantage, as there is currently no comprehensive protection program in place. Some private insurances offer policies in case of unexpected events, but they can be expensive.

One of the disadvantages of cryptocurrencies is also the understanding of technology, blockchain, and cryptocurrencies as a whole. According to the survey conducted by The Economist Group (2022) one of the biggest disadvantages of cryptocurrencies is a lack of understanding of digital currencies. The trend however is showing significant improvement in knowledge as in 2021 51 % of respondents put a lack of understanding of digital currencies as the primary concern, while in 2022, 21 % of respondents put it in the first place. As of 2022, the report suggests, that the biggest disadvantages which prevent cryptocurrencies to become standard means of payment are (The Economist Group, 2022):

- The requirement of a secure digital ID, which is not yet available (24 % of respondents)
- The overly complicated procedure of buying cryptocurrencies (24 % of respondents)
- Too few options to use cryptocurrencies (24 % of respondents)
- Not knowing where to buy cryptocurrencies (23 % of respondents)
- The purchase of cryptocurrencies is illegal in the countries of the respondents (23 % of respondents)

The main disadvantage of accepting cryptocurrencies as a payment method is the volatility of these assets. Cryptocurrencies can fluctuate significantly in value over short periods of time, which can create risk for businesses that accept them as payment. If the value of a cryptocurrency declines significantly between the time a payment is received and the time it is converted to a fiat currency, the business may still end up losing money on the transaction. This volatility can also make it difficult for businesses to set prices and manage their financial planning, as they may not be able to accurately predict the value of their cryptocurrency revenues. However, clients can decide to instantly convert cryptocurrencies.

2.4.2 Acceptance of cryptocurrencies as payment by companies

According to Best (2023), the United States has the biggest number of companies that have either in-store ATMs for cryptocurrency withdrawal or accept cryptocurrencies as means of payment. Best (2023) pointed out that more populated countries do not necessarily have more stores and businesses that accept cryptocurrency payments. Both Italy and Slovenia have recorded over 1000 different businesses that accept cryptocurrencies as payment compared to much more populated Germany which recorded 700 businesses that accept cryptocurrencies as payment.

Cryptocurrency payment in Slovenia is highly popular amongst smaller businesses such as bars, restaurants, galleries, optics, dental health, retailers with sporting equipment, etc.

Map.Bitcoin. (2022). According to GoCrypto (n.d.) there are over 1.300 bars and restaurants, sports venues, and shops that accept crypto payments. The table represents the biggest international and Slovenian companies that accept cryptocurrencies as a means of payment.

Table 7: List of companies accepting cryptocurrencies

International	Slovenia
Microsoft	Engrotuš
Home Depot	Žito
Twitch	Hot'Horse
SL Benfica	Sports Vision
Virgin Airlines	Buzz sneakers
Wikipedia	Woop!
Tesla	Big Bang
Starbucks	Sportina
AT&T	Siimple
Shopify	
Emirates	
Tag Heuer	
Balenciaga	

Source; CNBC (2022), Map.Bitcoin (2022); Modderman (2022).

There is still ongoing debate about whether companies accept cryptocurrencies to reach new customers, have a better public reputation, and follow the latest trends, or do companies truly believe that cryptocurrencies and technology are the future of conducting business. Jonker (2019) argues that one of the reasons why companies could accept cryptocurrencies as a means of payment is the market competition they are facing. By providing an option to pay in cryptocurrencies, companies can prevent losing customers to the competition and can attract the competition's customers. Furthermore, Jonker (2019) states that in fiercely competitive markets, platforms can impose excessive charges on retailers, leading to antitrust litigation and even intervention by regulatory bodies. By accepting cryptocurrency as a means of payment companies could avoid excessive fees implemented by platforms. Despite the high awareness and notoriety adoption is still relatively low which can be one of the possible reasons why companies do not decide to accept cryptocurrencies (Kowalski et al., 2022). According to Presthus and O'Malley (2017), the adoption of cryptocurrencies by companies is often hindered by a phenomenon known as the "collective action problem" or "network effects". Companies are hesitant to be the first to adopt this new technology, and instead, they wait for their competitors to make the first move and assess the outcome of

their decision before making their own. This results in a deadlock, where nobody takes the initial step towards adoption, leading to a slow process. The authors explain that companies are uncertain about the regulatory environment and the potential risks and benefits of using digital currencies as a form of payment, which causes them to hesitate. However, once a critical mass of companies begins to adopt cryptocurrencies, the network effects can create a positive feedback loop, leading to further adoption and ultimately breaking the deadlock.

3 RESEARCH FRAMEWORK AND METHODOLOGY

3.1 Research objectives development

This master's thesis looks into the perceptions and opinions of Slovenian companies about the usage of cryptocurrency as a substitute payment method. The study will also look at whether cryptocurrencies are suitable for business-to-business (B2B) and business-to-customer (B2C) transactions. The results of the study will be set in the context of worldwide discussions about cryptocurrencies and their possible effects on the global economy. The objectives of this study are to comprehend the driving forces behind the acceptance of cryptocurrencies as a form of payment, the influences on organizations' views about cryptocurrencies, and the possible benefits and drawbacks of adopting cryptocurrencies in business. By examining the case of Slovenia and drawing lessons from this case study, this research aims to contribute to the global debate on cryptocurrencies and their impact on global business.

To get measurable results and to assess whether Slovenian companies are keen to use cryptocurrencies as a means of payment and don't accept them just because they are popular a questionnaire in form of a Likert scale was sent to different Slovenian companies that accept cryptocurrencies.

3.2 Research methodology

A survey and interviews were the two research methodologies used in the current study to gather secondary data. A survey is a type of research that gathers information from a sample of people using questionnaires or interviews. Surveys are a popular research method in many disciplines, including the social sciences, marketing, and public opinion research. They are frequently employed to obtain data regarding people's viewpoints, convictions, attitudes, and behaviors (Punch, 2013). A Likert scale was employed in the qualitative survey that was used in this study to gather data from participants. By asking respondents to assess their agreement or disagreement with a list of items, this scale—which is frequently used in survey research—allows researchers to gauge attitudes and opinions (Joshi et al., 2015). Results were gathered using the Likert scale, and scatter plots were also used to display the results.

The relationship between two variables is shown graphically in scatter plots, which can be used to spot trends and patterns in the data (Keim et al., 2009).

To better understand companies' financial and technical reasons for accepting cryptocurrencies as a means of payment a questionnaire in form of a Likert scale was sent to over 200 Slovenian companies and businesses that accept cryptocurrencies as a means of payment. The companies were randomly selected using Coinmap (2022). To measure the motivations behind the adoption of cryptocurrency as a form of payment, it is necessary to consider two dimensions: utilitarian enthusiasm and conviction in the revolutionary nature of the technology. Utilitarian enthusiasm refers to the perception that cryptocurrency is beneficial for business and may be influenced by factors such as awareness of existing business discussions and practices, and consumer attitudes. Conviction in the revolutionary nature of cryptocurrency, on the other hand, requires a deeper understanding of the technology and its potential impact. Together, these dimensions can provide insight into the factors driving the adoption of cryptocurrency as a payment method. To get a detailed understanding of businesses' reasons survey asked businesses five different questions regarding their trendy/financial reasons for accepting cryptocurrencies. The questions explored whether businesses adopted cryptocurrencies due to their popularity, the belief that they will soon become a widely accepted form of payment, the acceptance of cryptocurrencies by big companies, a favourable tax regime, or to reach new customers. Furthermore, participants were asked five questions regarding technical/ knowledge reasons for accepting cryptocurrencies. The questions asked whether employees were educated about blockchain technology, different ecosystems such as NFTs and metaverse coins, whether the company accepts cryptocurrencies due to their decentralized nature, fast and secure transactions, and lower transfer costs, and if the company sees cryptocurrencies as an alternative to existing financial systems. The results of this survey provide valuable insight into the motivations behind businesses' adoption of cryptocurrencies as a means of payment.

Participants were then asked to select options from 1 to 5:

1 – strongly disagree, 2 – disagree, 3 – neutral, 4 – agree, 5 – strongly agree

The second research method that was used was the interview. An interview is a research method in which a researcher or interviewer engages in a guided conversation with a participant or group of participants to gather information about a particular topic of interest. Interviews can be conducted in person, over the phone, or online, and can be structured or unstructured (Rubin & Rubin, 2012). In structured interviews, the interviewer asks a predetermined set of questions to all participants, while in unstructured interviews, the interviewer uses a more flexible approach to explore a particular topic in-depth. According to Punch (2013), the interview is the most prominent data collection tool in qualitative research as it is a very convenient and good way of accessing people's views, opinions, and beliefs. A total of three interviews were conducted, all of which were unstructured. One interview was conducted online, one was an in-person interview with one participant, and

the third was an in-person group interview. The unstructured format of the interviews allowed for flexibility in exploring the research questions and allowed for a detailed exploration of the participants' perspectives and experiences. The use of unstructured interview formats and settings helped to provide a diverse range of perspectives and experiences, which can contribute to a richer understanding of the research topic.

3.3 Survey

3.3.1 Data collection summary

The data for this study was collected from a total population of 1300 companies that accept cryptocurrencies as payment in Slovenia. From this population, 200 companies were selected using random sampling, which is a method of selecting a sample from a population in which every member of the population has an equal chance of being selected (Etikan, 2017). Of this sample, 20 companies were willing to participate in the survey. Upon analysis, 18 out of the 20 responses had provided valid results. The sample of 18 companies was sufficient to provide a general understanding of the attitudes and experiences of businesses that accept cryptocurrencies in Slovenia, however, the sample size is too small to draw general conclusions about the entire population of businesses that accept cryptocurrencies in Slovenia. Despite the limitations of the sample size, the findings of this study may still be useful in providing insight into the attitudes and experiences of a subset of businesses that accept cryptocurrencies and may be helpful in guiding further research on this topic.

3.3.2 Sample characteristics

The sample for this study consisted of 18 companies/businesses based in Slovenia that accept cryptocurrencies as a form of payment. The sampled companies represented a diverse range of industries, including retail, hospitality, financial services, healthcare services, and IT services. The size of the companies varied widely, with some being micro-enterprises with fewer than 10 employees, while others were small-sized enterprises with 10-49 employees, medium-sized enterprises with 50-249 employees, and large enterprises with over 250 employees. All of the companies in the sample were based in Slovenia and had experience accepting cryptocurrencies as a form of payment. The sample was diverse in terms of the types of cryptocurrencies accepted, with some companies accepting only one type of cryptocurrency and others accepting multiple types. The respondents in the survey did not specify which platform they use to accept cryptocurrencies. However, the most widely used system in Slovenia for accepting crypto is GoCrypto, due to its ease of use and integration with existing payment systems (GoCrypto, 2022). To provide a clearer overview of the survey participants, we have compiled a table grouping the companies by industry and size. Some companies requested that their name remains undisclosed.

Table 8: List of companies who participated in the survey (some companies did not want to disclose their name)

Name	Industry	Size
77 d.o.o.	Eye clinic	Micro
Biga Bang	Electronic retail	Large
IDD d.o.o.	Retail	Micro
Ivan Grozny d.o.o.	Financial service	Micro
Nackle d.o.o.	Hospitality	Small
VVATT, turizem d.o.o.	Hospitality	Micro
Zobozdravstvo Bele	Dental service	Micro
Company #1	Beauty salon service	Micro
Company #2	Information Technology	Micro
Company #3	Business consultation	Micro
Company #4	Science Institute	Small
Company #5	Electronic Retail / Photo service	Small
Company #6	Unknown Service	Small
Company #7	Unknown Service	Small
Company #8	Hospitality	Small
Company #9	Retail	Small
Company #10	Unknown service	Medium
Company #11	Retail	Large

Source: Own work.

3.4 Interviews

The three interviews conducted for this study involved a range of participants with expertise in the cryptocurrency industry. The first interviewee was Mr. Žan Poglajen, a business developer and crypto marketing manager at GoCrypto. The second interviewee was Jaka Erjavec, ISM and Infrastructure Advisor to the Board at Kriptomat group. The third interview was conducted with members of Orcabay, a Crypto Market & Algo Trading firm. The participants in the third interview were Jakob Brezigar, the CEO & Co-Founder, Peter Opara,

the CEO & Co-Founder, and Domen Kržišnik, the CTO & Co-Founder. By interviewing individuals with experience working in the different segments of the cryptocurrency industry, the study aimed to provide a comprehensive understanding of the cryptocurrency space.

The respondents for this study were chosen based on their expertise and experience in the cryptocurrency industry, as well as their availability to participate in the interviews. The research tried to identify individuals with different roles within the industry, including business development, marketing, and technology. The final selection of respondents was also influenced by their availability to participate in the interviews, as scheduling constraints had to be taken into consideration.

All participants in this study agreed to share their responses and personal information, such as their names and professional affiliations. Prior to the interviews, the participants were informed about the purpose of the study and the confidentiality of their responses. This gives the thesis additional transparency and credibility.

4 RESULTS BASED ON THE COLLECTION OF PRIMARY DATA

4.1 Survey

The data collected from the survey was analysed to identify common themes and patterns in the responses. The analysis involved a qualitative approach, where the responses were categorized into different themes based on the research questions. To further analyse the data, a scatter plot was used to visualize the key findings. The scatter plot was developed to show the distribution of responses across different themes and to identify any relationships between the themes.

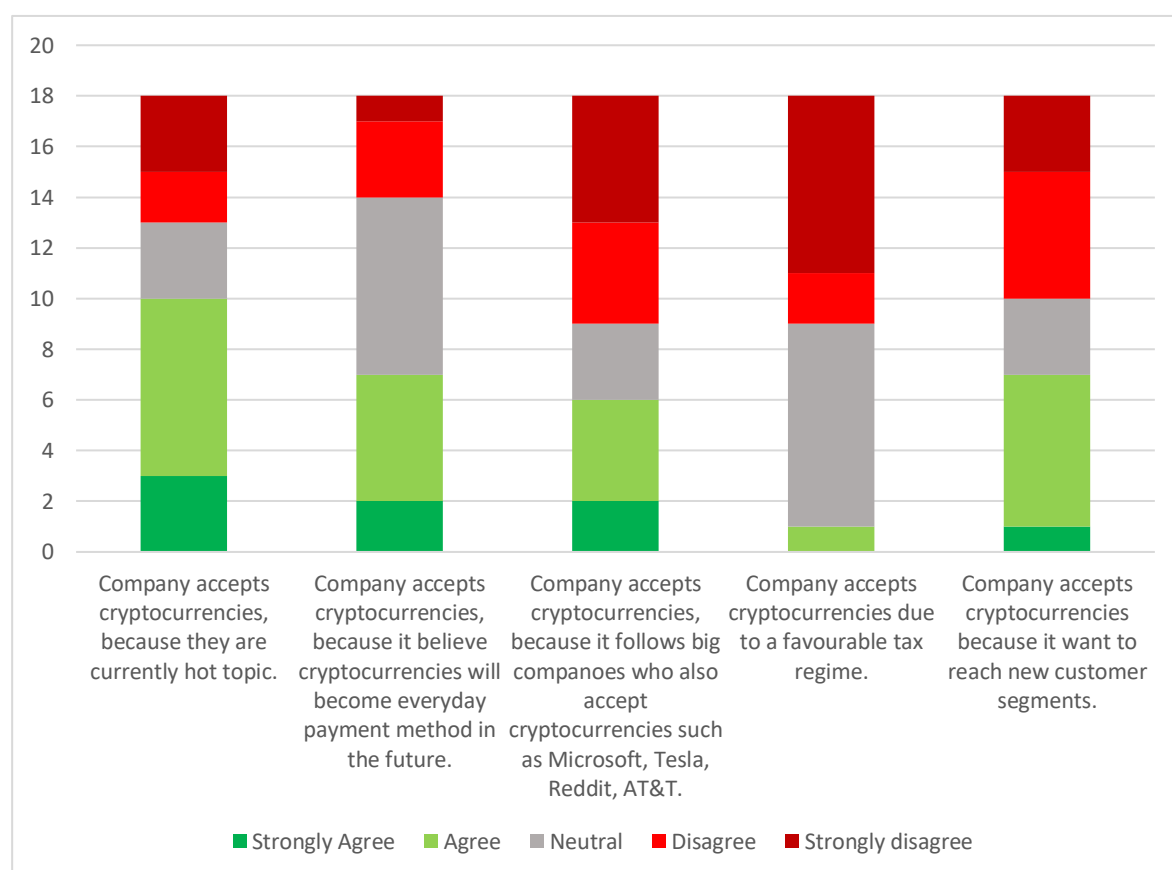
Financial reasons for accepting cryptocurrencies as a means of payment can be categorized into two types: direct and indirect. Direct financial reasons could be an increase in cryptocurrency payments, lower transaction costs, lower exchange costs, and instant cash flow. By accepting cryptocurrencies, businesses can reduce the transaction and exchange fees that are typically associated with traditional payment methods, which can lead to significant savings. Additionally, cryptocurrency payments can be processed more quickly, allowing businesses to receive payments in real-time.

Indirect financial reasons for accepting cryptocurrencies could be a better brand image, access to a new customer segment, and an alternative to traditional banking payment systems. By accepting cryptocurrencies, businesses can position themselves as innovative and forward-thinking, which can help them to attract new customers and improve their reputation. Additionally, accepting cryptocurrencies can allow businesses to tap into new customer segments that are interested in using digital currencies for payments. Finally,

cryptocurrencies provide an alternative to traditional banking payment systems, which can be advantageous in countries with unstable banking systems or high fees for international transactions. Overall, these direct and indirect financial reasons make a strong case for businesses to consider accepting cryptocurrencies as a means of payment.

For easier visualisation of the survey, stacked bar charts were used. The stacked bar charts allow for easy visualization of the distribution of responses for each statement or item in the scale. The diverging stacked bar chart format makes it easier to compare the proportion of responses in each category for the positive and negative options of the scale (Heiberger & Robbins, 2014).

Figure 1: Distribution of responses to questions related to financial reasons.

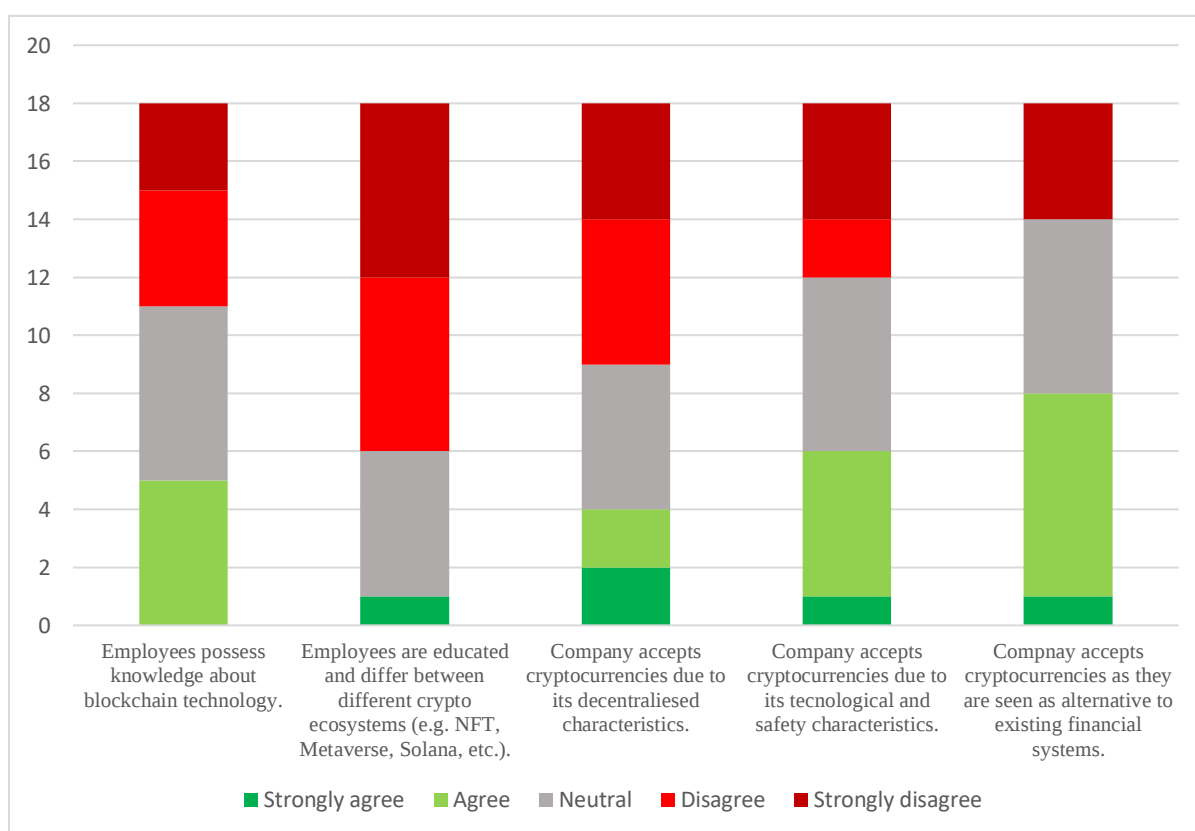


Source: Own work.

Technical reasons for accepting cryptocurrencies as a means of payment can also be categorized into two types: direct and indirect. Direct technical reasons include the use of the technology behind cryptocurrencies, such as blockchain and smart contracts. By doing so, businesses can take advantage of the different characteristics of cryptocurrencies such as security, transparency, and immutability that these technologies provide. Additionally, blockchain-based transactions are often faster and more efficient than traditional payment methods, leading to reduced costs, increased efficiency, and instant cash flow for the company.

Indirect technical reasons for accepting cryptocurrencies include a better brand image, access to a new customer segment, and the spread of ideology. By accepting cryptocurrencies, businesses can position themselves as innovative and technologically advanced. Additionally, accepting cryptocurrencies can allow businesses to tap into new customer segments that are interested in using digital currencies for payments. By accepting cryptocurrencies, businesses can also signal their support for decentralization, privacy, and security, which can be important values for certain customer segments. Finally, by mastering the technology behind cryptocurrencies before their competitors, businesses can future-proof themselves and gain a competitive advantage.

Figure 2: Distribution of responses to questions related to technical reasons.



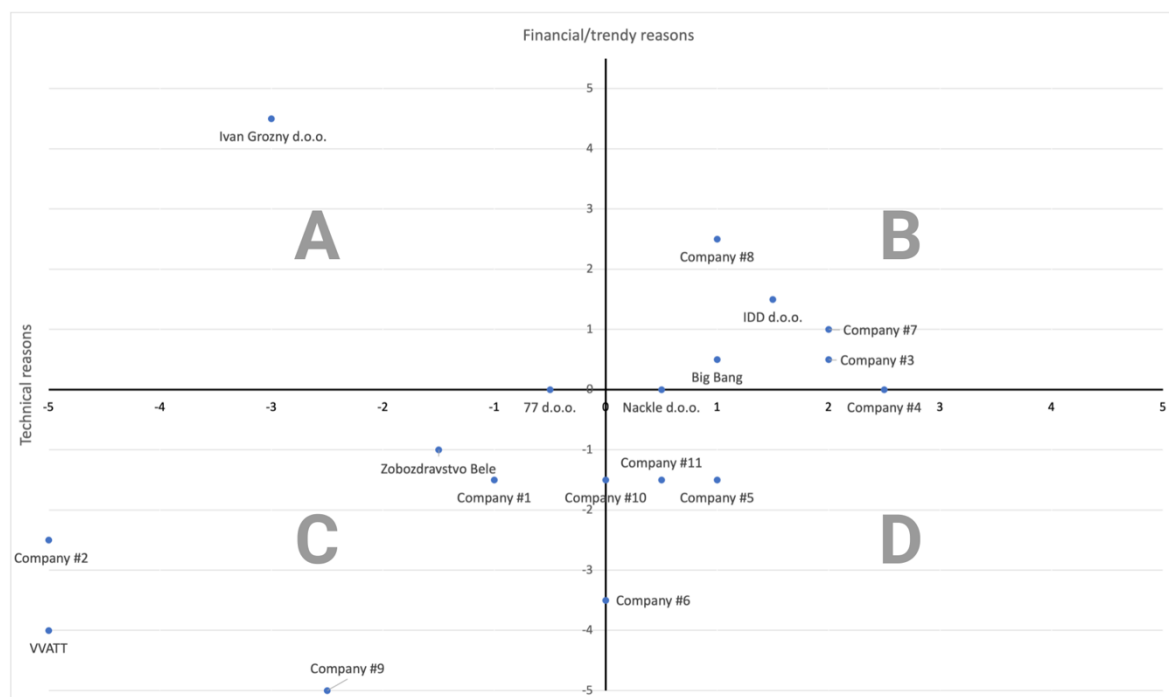
Source: Own work.

Overall, these direct and indirect technical reasons make a strong case for businesses to consider accepting cryptocurrencies as a means of payment. By embracing the technology behind cryptocurrencies, businesses can gain a range of benefits that go beyond just financial considerations.

For easier calculation and analysis of results, answers were additionally coded. Each “strongly agree” answer counts for 1 point, “agree” counts for ½ point, neutral for 0 points, disagree – ½, and strongly disagree for -1 point. For each set of questions trendy and

technical, there is a maximum of 5 and a minimum of -5 points available. For easier visualization, the results of the survey are presented in the form of a plotted quadrant chart.

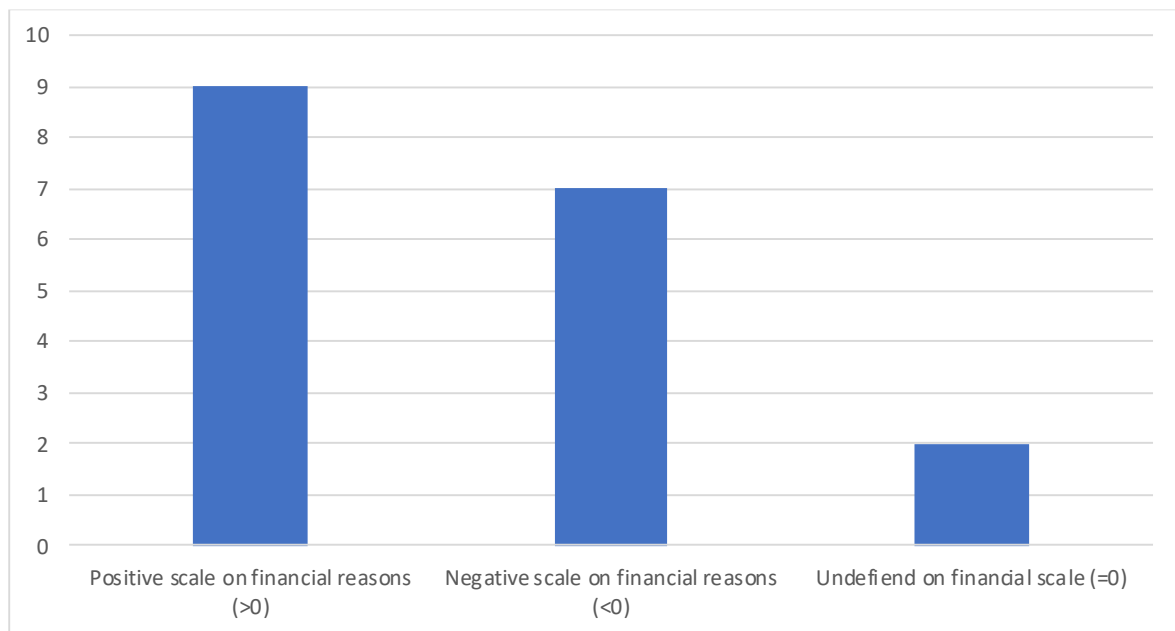
Figure 3: The results of the survey in a scatter plot.



Source: Own work.

The quadrants B and D represent companies that accept cryptocurrencies due to financial/trendy reasons. 9 out of 18 companies accept cryptocurrencies due to financial reasons, 7 out of 18 don't accept them due to financial reasons, and 2 companies remained undefined. The companies that accept cryptocurrencies due to financial reasons operate in retail, hospitality, business consultation science, and electronic retail industries, while the industry of one business remains unknown. While the companies in the B quadrant also stated technical reasons for accepting cryptocurrencies and possess knowledge about cryptocurrencies (with the exception being two companies/businesses who operate in the hospitality and science industry), two companies in quadrant D, which operate in the retail and electronic retail industry have a negative score on technical reason/knowledge scale.

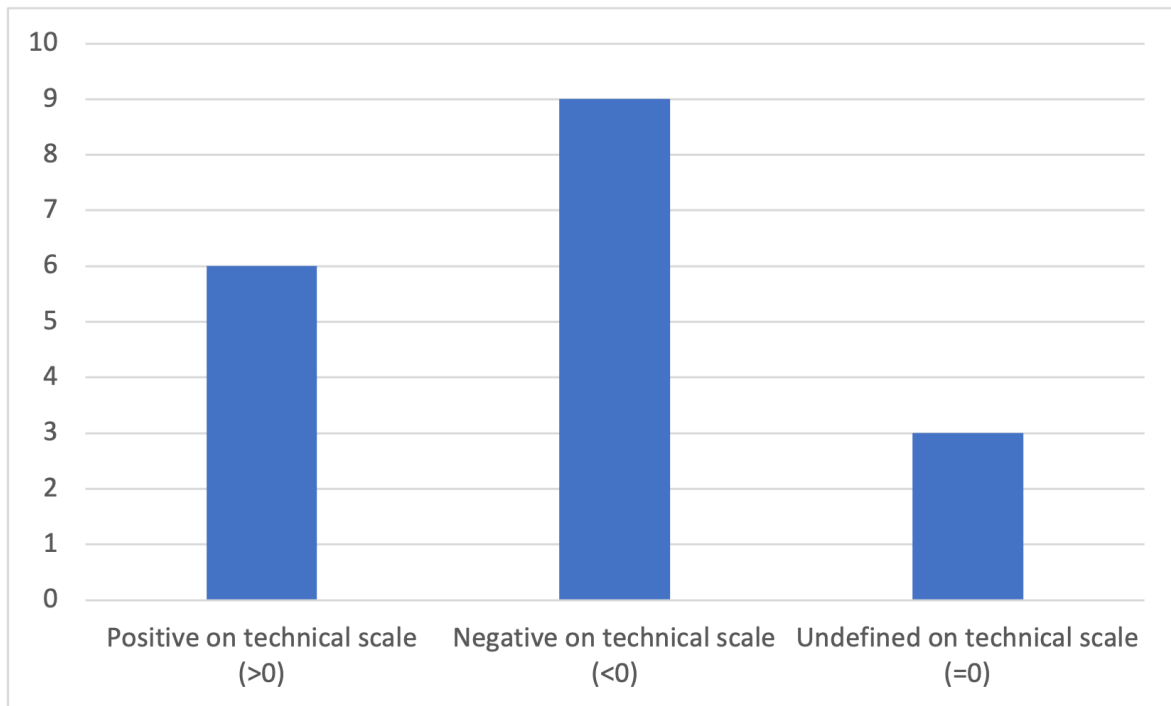
Figure 4: Number of companies accepting cryptocurrencies due to financial reasons.



Source: Own work.

The quadrants A and B represent companies that accept cryptocurrencies due to the technical reasons and the knowledge about cryptocurrencies they possess. 6 out of 18 companies accept cryptocurrencies due to technical reason reasons, 9 out of 18 don't accept them due to technical reasons, and 3 companies remained undefined. The companies that accept cryptocurrencies due to the technical reasons and the knowledge about cryptocurrencies they possess operate in hospitality, retail, business consultation, financial sector, and electronic retail while the industry of one remains unknown. While companies in the B quadrant also have financial reasons for accepting cryptocurrencies, a company in quadrant A scored negatively on the financial scale and does not accept cryptocurrencies due to financial reasons.

Figure 5: Number of companies accepting cryptocurrencies due to technical reasons.



Source: Own work.

Based on the survey analysis of companies in Slovenia, it appears that the primary motivation for accepting cryptocurrencies as a payment method is financial. While some companies may also be motivated by ideological reasons or a desire to support the adoption of new technologies, financial considerations appear to be the main driver of adoption. These findings suggest that companies in Slovenia are primarily motivated by short-term financial considerations when it comes to accepting cryptocurrencies as a payment method. The most common financial reason cited by companies was that cryptocurrencies are currently trending and a hot topic, which may make accepting them as a payment method a way to differentiate themselves from competitors and enhance their public image. On the other hand, the most common technical reason cited by companies was that they perceive crypto payments as an alternative to traditional financial payment systems. This suggests that some companies may be interested in the technology behind cryptocurrencies and see them as a way to disrupt and challenge existing payment systems. It is clear that companies need to carefully evaluate the benefits and risks associated with accepting cryptocurrencies as a payment method, taking into account both financial and practical considerations. Overall, the survey results suggest that while financial considerations are the primary driver of adoption, companies in Slovenia may also be interested in the technology behind cryptocurrencies and the potential for disruption and innovation that they offer. As the use of cryptocurrencies in commerce continues to grow, it will be important for companies to carefully consider these different motivations and make informed decisions about their adoption and use.

4.2 Interviews

To further deepen understanding of the topic, three interviews/questionnaires were conducted.

Respondent stated that GoCrypto (payment network) enables payment with three different wallets: Binance Pay, Bitcoin.com Wallet, and Elly Wallet, which together support more than 50 different cryptocurrencies. The advantages of accepting cryptocurrencies as a means of payment are lower transaction costs, instant pay-out when using cryptocurrencies, wider customer segment, appeal to “high-end” customers, better recognition due to the fact that cryptocurrencies are a popular topic, ability to accept cryptocurrencies however the pay-outs are in form of fiat.

One of the disadvantages that the respondent noted is the volatility in the price of cryptocurrencies. When it comes to the advantages of cryptocurrencies as a means of payment for consumers, the respondent noted the convenience as they can be used for everyday purchases through popular platforms and wallets such as Bitcoin.com wallet and Binance Pay. Respondent also mentioned disadvantages such as a limited number of retailers/businesses accepting cryptocurrencies as well as limited knowledge of payment process by retailers/businesses as crypto payments are not regular. It is important to notice that businesses can accept payments in cryptocurrencies however it is up to them to decide whether they want a pay-out in form of fiat money or want to transfer cryptocurrencies to their trusted crypto wallet. The respondent emphasized that the size of a company does not play an important role when it comes to accepting cryptocurrencies as a means of payment – it is the mentality of the company and its acceptance to new trends that play the biggest part.

When asked about the possibility of cryptocurrencies being a payment method Jaka Erjavec, ISM and Infrastructure Advisor to the Board at Kriptomat group, stated that he believes that in the future people will use cryptocurrencies as a means of payment, however, he believes that the biggest and most known cryptocurrency Bitcoin won't be the most popular cryptocurrency for payments as it is seen more like a “digital gold” and people would not be keen to spend it on a day-to-day basis. Furthermore, the respondent believes that Central Bank Digital Currencies (CBDC) could be the most used and popular cryptocurrencies for everyday purchases. To avoid centralization and control over monetary policy respondents suggested a system in which governments would set the “rules of the game” while a third party such as Tether Limited Inc. would take care of cryptocurrencies and their monetary policy. This would prevent governments to have complete control over cryptocurrency and too much influence on their monetary policy.

The respondent also stated that in his opinion companies and institutes still see cryptocurrencies as an investment rather than a reliable payment method. For wider adoption of cryptocurrencies as a means of payment, respondent believes that common regulation for exchanges and institute across countries (European Union) is required, while also the processes such as creating a wallet, “know-your-customer” (KYC), and payment need to be simplified and more user friendly. The respondent also believes that wider adoption and usage of cryptocurrencies as a payment method will to some extent come naturally as younger generations who are more tech-savvy will soon have the biggest purchasing power. The respondent also mentioned the change of exchanges as they will have to adapt and become more localized to satisfy the needs of the customers.

When asked about the possibility of cryptocurrencies being a payment method The participants Jakob Brezigar (CEO & Co-Founder), Peter Opara (CEO & Co-Founder), and Domen Kržišnik (CTO & Co-Founder) stated that it is very important to differentiate between crypto-native companies and companies that decided to accept cryptocurrencies. In their words, crypto-native companies are companies that are born out of the cryptocurrency and blockchain industry, and whose primary focus is to provide services and products related to these technologies. Unlike traditional companies that may have added blockchain and cryptocurrency offerings to their existing business models, crypto-native firms are founded with the goal of building decentralized solutions and leveraging the benefits of blockchain technology. They further argue that crypto-native firms will notice or benefit more from the advantages of cryptocurrencies as means of payment than traditional companies, as traditional companies or businesses do not face problems that can be solved with the usage of cryptocurrencies as means of payment. The company Orcabay also accepts (and prefers) payments with cryptocurrencies since the company sells services mostly to foreign companies. The biggest advantages of cryptocurrencies as means of payment in their opinion are lower transaction costs, borderless global payments, and instant cash flow as transactions are settled in a matter of minutes no matter the geographical distance. Furthermore, they stated that decentralization enables them to conduct business without the need for banks and other financial institutions.

The table summarizes the main themes and insights that emerged from the interviews and provides a clear overview of the perspectives shared by the interviewee.

Table 9: Key points of using cryptocurrencies as payment

Žan Poglajen, GoCrypto	Jaka Erjavec, Kriptomat	Group interview, Orcabay
- Lower transaction costs. - Instant pay-outs. - A new segment of customers. - Cryptocurrencies face high volatility.	- People will not spend Bitcoin on daily basis. - CBDCs will be used as a payment method. - Third-party take control of monetary policy. - A common KYC process / easier user experience should be implemented.	- Differentiate between crypto-native companies and companies that decided to accept cryptocurrencies. - Lower transaction and exchange fees when using cryptocurrencies. - Borderless payments and instant cashflow.

Source: Own work.

4.3 The attitude and motives of Slovenian companies in terms of accepting cryptocurrencies as a payment method

The main reasons for this scepticism are the volatility of cryptocurrencies and the general lack of knowledge about the technology behind them. However, it should be noted that the majority of companies do accept cryptocurrencies as a form of payment, not necessarily because of their own belief in the technology, but rather due to the popularity of cryptocurrencies and the desire to follow the trend. Additionally, the current economic situation in the world may also be influencing their sceptical view on the use of cryptocurrencies. With economic and political uncertainty and instability, it is natural for businesses to be hesitant to adopt new technologies that may add additional risk. This is perhaps surprising, as one would expect companies in such a tech-savvy nation to be more open to the use of digital currencies. However, it seems that there is still some hesitation

surrounding the use of cryptocurrencies in the business world, at least in Slovenia. One of the main motives is the opportunity to tap into a new customer segment that may be more open to using digital currencies as a payment method. Many people who are interested in cryptocurrencies are looking for businesses that accept them as a form of payment, and by offering this option, a business can attract a new and potentially loyal customer base. Another motive to accept cryptocurrencies is to simply offer customers more payment options. By providing a range of payment methods, a business can make it easier for customers to complete transactions and may even increase the overall number of sales. This can be especially useful for businesses that operate online, as it allows them to reach a global audience and accept payments from anywhere in the world.

4.3.1 Advantages of accepting cryptocurrencies as a payment method

Despite the numerous benefits that cryptocurrencies offer, including secure transactions, decentralized control, lower fees, no chargebacks, enhanced security, borderless transactions, access to a new customer segment, and fast transaction speeds, research suggests that these are not being fully utilized. Companies are primarily accepting cryptocurrencies as a form of payment due to the fact that it represents an alternative to other traditional payment systems and their implementation is relatively cheap and easy.

Out of all advantages of accepting cryptocurrencies as a payment method Slovenian companies could benefit the most from the new customer segment, borderless transactions, and lower fees. Businesses that accept cryptocurrencies as a form of payment may be able to attract high-end consumers who are interested in and have access to new technologies, as these consumers tend to be more willing to spend more, which could potentially lead to improved financial results for the company. This could prove beneficial, especially to business and companies that offer luxurious services or products, as high-end consumers are more likely to buy them. Borderless transactions could be beneficial for the company in terms of lower fees, and increased transaction speed and would also open the possibility for new consumer segments as people from all over the world could easily purchase products/services. By offering crypto payments, Slovenian companies could reach new customer segments and improve their recognisability. This would not only benefit the specific company but would also have a positive impact on the recognisability of Slovenia and could attract foreign investments. Lower fees are also an important factor to consider as cryptocurrencies typically have much lower fees than traditional payment methods such as credit cards, which can make a significant difference for businesses. By having lower fees, companies can either lower the price to attract even more customers or increase their profit on the unit sold.

4.3.2 Disadvantages of accepting cryptocurrencies as a payment method

While there are some potential advantages to accepting cryptocurrencies as a payment method, such as lower fees increased transaction speed, and accessibility, borderless transactions, and access to a new customer segment, there are also some potential disadvantages to consider. These include the volatility of cryptocurrency values, the lack of widespread acceptance, the complexity of the technology, regulatory uncertainty, no chargebacks, and the risk of fraud or hacking. Some businesses may be hesitant to accept cryptocurrencies due to the lack of understanding or knowledge about how they work. Furthermore, Dr. Pahor argues that the success of cryptocurrency adoption is dependent on various factors, including local surroundings, societal beliefs, and the benefits that cryptocurrencies offer to the community. In other words, the worth of these currencies is context-dependent and may vary depending on the circumstances in which they are being used (Selaković, 2021). While it is extremely difficult to avoid disadvantages such as volatility and the lack of widespread acceptance due to their scale, Slovenian companies can still reduce their exposure to other disadvantages. One of the disadvantages which was also noted when analysing the survey is the complexity and lack of knowledge about cryptocurrencies and the technology behind them among the companies and their employees. Although technical knowledge and understanding of how cryptocurrencies work are not necessary, the basic knowledge might contribute not only to the company but also to the general adoption and widespread acceptance of cryptocurrencies. In order to avoid this problem, Slovenian companies could provide educational training and content for their employees in order for them to get familiar with cryptocurrencies and the technology behind them. Another disadvantage that could be avoided is regulatory uncertainty however it is not solely on companies to avoid it. Companies that accept cryptocurrencies should closely work with the Slovenian government to find the optimal solution and to clearly define »the rules of the game« which would also define if business/consumer is entitled to cashback in case of a faulty item, warranty, etc. A good example of a business cooperating with the authorities is the Swiss city of Lugano, where Bitcoin became a legal tender (BtcCasey, 2023). When dealing with digital assets there is always a possibility of fraud and hacking. Although companies cannot prevent cyber-attacks, companies can avoid them by keeping their tokens in safe wallets (online or hardware wallets).

4.3.3 Opinion of Slovenian companies about the future of cryptocurrencies

According to the survey, it appears that Slovenian companies did not provide any comments on the future of cryptocurrencies. It is not clear why this may be the case, but it could be due to a variety of factors, such as a lack of interest in the topic or a lack of knowledge about cryptocurrencies. Without more information, it is difficult to speculate on the reasons for this. It is important to note that any conclusions about the opinion of Slovenian companies on the future of cryptocurrencies should be considered in light of the limitations of the survey. The survey only included responses from 18 companies, it may not be representative

of the broader population of Slovenian companies. From the limited sample available, the survey showed that participating companies accept cryptocurrencies as a form of payment due to the low cost of implementation of a cryptocurrency payment system and wider audience reach even if they are not necessarily interested in the long-term prospects of these digital assets. However, it is important to understand the difference between crypto native and traditional companies. While traditional companies may have added blockchain and cryptocurrency offerings to their existing business models, crypto-native firms are born out of the cryptocurrency and blockchain industry, and their primary focus is to provide services and products related to these technologies. One key difference between the two is their approach to decentralization. Crypto-native firms prioritize decentralization and seek to provide solutions that reduce the need for centralized intermediaries, while traditional companies often rely on centralized systems and intermediaries to facilitate transactions. This can have implications for security, privacy, and control, as users of crypto-native services often have more direct control over their assets and data.

4.4 Discussion of the results

The survey results suggest that companies in Slovenia can be classified into four different quadrants based on their attitudes and motivations toward accepting cryptocurrencies as a payment method.

Quadrant A could be described as the knowledgeable pessimist, consisting of companies that understand the technology behind cryptocurrencies but do not perceive any significant financial benefits to accepting them as a payment method. These companies may be motivated by ideological reasons or a desire to support the adoption of new technologies, or they don't see added value in

Quadrant B could be described as a crypto enthusiast, consisting of companies that possess knowledge about cryptocurrencies and have both technical and financial reasons for accepting them as a payment method. These companies may see cryptocurrencies as a way to reduce transaction fees, attract new customers, and position themselves as thought leaders in the industry.

Quadrant C could be described as the crypto pessimist, consisting of companies that do not possess knowledge about cryptocurrencies and do not see any significant financial benefits to accepting them as a payment method. These companies may be accepting cryptocurrencies for other reasons, such as to boost their public image or to differentiate themselves from competitors.

Quadrant D could be described as the short-term profit seekers, consisting of companies that do not possess knowledge or have technical reasons for accepting cryptocurrencies but see significant financial benefits to doing so. These companies may be motivated by short-term

financial considerations and may not necessarily be interested in the long-term prospects of cryptocurrencies as a payment method.

The results from the primary data collected through surveys and interviews with businesses disconfirmed the reasons for the adoption of cryptocurrencies as a means of payment that were found in the secondary data. The mean for the perceived utilitarian enthusiasm equals -0,03125 which indicates that the decision for accepting cryptocurrencies as the means of payment correlates to trendy/financial reasons is neutral and that outside factors did not influence the companies' decision of accepting cryptocurrencies. When it comes to technical reasons the arithmetic mean equals -0,5625 which indicates that employees are not as well educated about cryptocurrencies hence the decision that companies do not accept cryptocurrencies could be correlated with the knowledge they possess. While the negative mean on the technical scale is not surprising (Steinmetz et al., 2021), respondents have not shown particular enthusiasm from a trendy/financial point of view.

One would expect that companies who accept cryptocurrencies as the means of payment would back their decision with an increased interest in cryptocurrencies. Despite the growing number of cryptocurrency users worldwide, with an estimated 420 million users and an average ownership rate growing 4.2% year over year (TrippleA, 2023), the increased level of public interest in cryptocurrencies globally (Young, 2022), Slovenia has yet to see a similar level of enthusiasm. In most cases, the decision to accept cryptocurrencies as a means of payment is a practical one, offering a low-cost alternative payment method for customers. The results of this research showed that the decision to accept cryptocurrencies is not usually made based on a company's perception of the technology or ideology behind it. The survey results show that the majority of the companies do not have strong opinions regarding trendy/financial reasons or technical reasons for accepting cryptocurrencies as a means of payment. It was observed that none of the companies completely agreed (5 points) with either the trendy/financial reasons (x-axis) or the technical reasons (y-axis). However, two companies expressed strong disagreement (-5) with the trendy/financial reasons (x-axis), while one company strongly disagreed with the technical reasons (y-axis).

An interesting observation from the collected data is that only one company scored a relatively high mark (4.5) for technical reasons for accepting cryptocurrencies but had no financial reasons for doing so. This company operates in the financial industry, which raises the question of if traditional financial institutions and businesses do not see financial benefits in accepting cryptocurrencies despite having a high degree of knowledge. The remaining five companies who have also stated technical reasons also had financial reasons for adoption, indicating that there may be a strong correlation between the level of knowledge, technical understanding of cryptocurrencies and the potential financial benefits that can be realized through their adoption as a means of payment. These findings suggest that companies with a deeper understanding of cryptocurrencies may be better equipped to recognize the financial benefits that come with their adoption and may be more likely to embrace cryptocurrencies as a viable means of payment. These observations highlight the

potential importance of non-financial reasons, such as ideology, competitive advantage, and future-proofing, for businesses considering accepting cryptocurrencies.

Overall, the results show that the decision to accept cryptocurrencies as a payment method is largely driven by practical considerations and additional payment offer to customers, rather than a deep understanding or conviction in the technology or financial trendiness of cryptocurrencies. Furthermore, this highlights a complex relationship between companies and cryptocurrencies as a means of payment. Despite the fact that some companies have chosen to accept cryptocurrencies, it does not necessarily indicate a belief in the underlying ideology or technology behind them. This finding highlights the multifaceted nature of the decision to accept or not to accept cryptocurrencies and suggests that it is not solely based on financial or trend-related reasons. The fact that companies can have a diverse range of motivations for accepting cryptocurrencies is an intriguing aspect of the current landscape.

5 BUSINESS IMPLICATIONS AND RECOMMENDATIONS

5.1 Theoretical implications

The adoption of cryptocurrencies as a payment method by companies is a topic of increasing importance, given the growing popularity of digital currencies and their potential impact on the traditional payment system.

While some previous research has suggested that companies choose to accept cryptocurrencies as a form of payment due to the perceived advantages of this payment method, such as lower fees and increased security, the research suggests that this may not always be the case. The results from the primary data collected through surveys and interviews with businesses disconfirmed the reasons for the adoption of cryptocurrencies as a means of payment that were found in the secondary data. While previous research has explored the reasons behind the adoption of cryptocurrencies by companies, the study provides novel insights into this phenomenon.

One of the key findings of the research is that companies may choose to accept cryptocurrencies not because of their perceived advantages, but rather because of practical considerations such as ease of implementation and the ability to expand their customer base. This challenges the existing assumptions about the drivers of adoption and highlights the need for a more nuanced understanding of the decision-making process.

Furthermore, the study provides a platform for further investigation into the adoption of cryptocurrencies by companies. Future research could explore the role of specific cryptocurrencies in the decision-making process, as well as the impact of regulatory frameworks on the adoption of cryptocurrencies. Additionally, future research could explore the relationship between technical knowledge and financial motivations in greater depth, in

order to provide further insight into the decision-making processes behind cryptocurrency adoption. The study could be replicated in different contexts to examine how the adoption of cryptocurrencies may vary across industries and countries.

The findings of the research also have important implications for companies and policymakers. Companies considering accepting cryptocurrencies as a payment method should carefully consider the practical benefits and drawbacks of this decision, rather than relying solely on the perceived advantages of this payment method. Policymakers, on the other hand, may need to focus on practical considerations related to the implementation and adoption of cryptocurrencies by companies when considering the regulatory framework for cryptocurrencies.

From a theoretical perspective, the study challenges the existing assumptions about the drivers of the adoption of cryptocurrencies by companies. By highlighting the importance of practical considerations, the research suggests that the decision to accept cryptocurrencies may be more complex than some previous studies suggest. This confirms the need for a more comprehensive approach to understanding the adoption of cryptocurrencies by companies, and future research should explore the correlation between practical and perceived advantages in the decision-making process.

Overall, the study contributes to the literature on the adoption of cryptocurrencies by companies and provides interesting insights into the decision-making process behind the adoption of cryptocurrencies as a means of payment. The practical and theoretical implications of our findings highlight the need for continued research in this area, as the use of cryptocurrencies in commerce is likely to increase in the coming years.

5.2 Business implications

The business implication of the research findings is that businesses that are conducting business abroad especially businesses dealing services can benefit the most due to the benefits of cryptocurrencies such as lower transaction costs, borderless global payments, and instant cash flow. The research identified that the adoption of cryptocurrencies by businesses is mainly due to the low cost of implementation of systems that support their acceptance, rather than companies being enthusiastic about cryptocurrencies. However, despite the potential benefits, the main problems in the widespread adoption of cryptocurrencies as a means of payment are the relatively low public interest and adoption of cryptocurrencies and the low level of knowledge among consumers and businesses.

Businesses, especially businesses selling services to foreign companies, can benefit from the fast, secure, and low-cost transactions offered by cryptocurrencies which can result in increased customer satisfaction and improved financial performance. The elimination of financial institution fees and the low cost of transactions could be particularly interesting reasons for smaller businesses to adopt cryptocurrencies. Furthermore, businesses that deal

with luxury or high-end products can particularly benefit from accepting cryptocurrencies, as they appeal to a tech-savvy customer base. Accepting cryptocurrencies can also help businesses stand out from the rest, as it shows their commitment to innovation and technology. This can be especially beneficial for small and medium-sized businesses looking to differentiate themselves from larger, more established competitors.

In conclusion, despite the potential benefits, the low public interest and adoption of cryptocurrencies and the low level of knowledge among consumers and businesses are the main obstacles to their widespread use as a means of payment. Businesses of all sizes can benefit from accepting cryptocurrencies, low cost of implementation, the potential for increased customer satisfaction, improved financial performance, and differentiation make it a worthwhile consideration for all businesses. Wider education about cryptocurrencies and related technologies could also contribute to their wider adoption among businesses. However, it is important for companies to understand the risks associated with cryptocurrencies such as volatility and not being backed up by financial institutions, and to have a risk management system in place.

5.3 Limitations and further research

There are several limitations to consider when interpreting the results of this research. One limitation is the relatively small sample size of 18 companies. Due to the relatively small sample size, the findings of the study cannot be generalized to the broader population of companies. Another limitation is the timing of the research, which was conducted during a so-called bear market or recession. The macroeconomic environment during this time may have influenced the opinions and behaviors of the companies included in the study, and the results may not be the same in different market conditions. It is important to consider these limitations when interpreting the findings of the research and when applying the results to other contexts.

Future research could explore the relationship between knowledge and education about cryptocurrencies and the adoption of these digital assets as a means of payment. Specifically, it would be interesting to investigate whether companies that have a better understanding of the technology behind cryptocurrencies are more likely to accept them as a payment method and whether providing education and resources about cryptocurrencies to businesses could lead to increased adoption. This type of research could help to identify any barriers or challenges to the wider adoption of cryptocurrencies as a payment method and could inform efforts to promote the use of these assets in the business world. Additionally, the research could be conducted to compare the adoption of cryptocurrencies as a payment method in different countries or industries, to identify any factors that may influence the adoption of them.

The main finding of the research suggests further research should look into why companies choose to accept cryptocurrencies despite their lack of belief in the ideology or technology

behind them. This gap in research highlights the need for further investigation into the role that cultural and ideological factors play in the adoption of cryptocurrencies as a payment method. Understanding, how one's beliefs and values influence the decision of accepting cryptocurrencies can provide valuable insights into the overall adoption and integration of these digital assets into the everyday economy. Thus, it is important to conduct additional studies to explore the impact of ideology and cultural factors on the adoption of cryptocurrencies and get a better picture on why some companies choose to accept them despite their beliefs or lack of understanding about the technology.

CONCLUSION

The world of cryptocurrency is a rapidly evolving industry that is constantly changing. New technologies and trends emerge regularly, and it can be challenging to keep up with the latest developments. However, one thing is certain: there will always be supporters and critics of cryptocurrency. Despite the ongoing debates and controversies surrounding this digital currency, it suggests that cryptocurrencies are here to stay. As more and more individuals and organizations begin to embrace it, the potential for its growth and impact on society is enormous. It is essential to approach this industry with a critical and analytical mindset, taking the time to understand the benefits and drawbacks of cryptocurrency. By doing so, we can navigate the ever-changing landscape of this fascinating field and make informed decisions about its role in our lives and the global economy.

The research process for this master's thesis consisted of two phases. Firstly, I collected secondary data for theoretical research and built a foundation to understand the current state of the field. Secondly, I collected primary data through surveys and interviews to gain a deeper understanding of the adoption of cryptocurrencies as a payment method by companies in Slovenia. Despite the global rise in interest in cryptocurrencies, my study found that companies in Slovenia accept cryptocurrencies primarily because it does not cost much to establish a payment system, it can attract new customers, and it can help improve their reputation. The technical aspects of cryptocurrencies do not seem to concern these companies, and they are primarily focused on the immediate benefits of accepting these assets rather than the long-term prospects of cryptocurrencies. However, the research conducted in this thesis has found a correlation between companies that possess knowledge about the technology and technical reasons behind the adoption of cryptocurrencies, and their ability to perceive the financial benefits associated with this new payment method. Overall findings suggest that companies in Slovenia are primarily motivated by short-term considerations when it comes to accepting cryptocurrencies as a payment method.

The practical implications of my research findings are significant. Companies considering accepting cryptocurrencies as a payment method should carefully consider the practical benefits and drawbacks of this decision, rather than relying solely on the perceived advantages of this payment method. Policymakers should also take note of these findings

when considering the regulatory framework for cryptocurrencies, as they may need to focus on practical considerations related to the implementation and adoption of cryptocurrencies by companies.

The research has shown that with the evolving global trade of services, businesses - especially those selling services to foreign companies - can benefit greatly from the use of cryptocurrencies. The findings suggest that the fast, secure, and low-cost transactions offered by cryptocurrencies can result in increased customer satisfaction and improved financial performance for businesses. The use of cryptocurrencies enables businesses to conduct cross-border transactions more efficiently and at a lower cost than traditional payment methods, such as bank transfers or credit cards. This can lead to increased profitability, as businesses can reduce their transaction costs and pass on these savings to their customers.

From a theoretical perspective, my study challenges the existing assumptions about the drivers of the adoption of cryptocurrencies by companies. By highlighting the importance of practical considerations, my research suggests that the decision to accept cryptocurrencies may be more complex than previously assumed. Future research could explore the interplay between practical and perceived advantages in the decision-making process and examine how the adoption of cryptocurrencies may vary across industries and countries.

In conclusion, my study provides novel insights into the adoption of cryptocurrencies as a payment method by companies in Slovenia. The findings challenge existing assumptions about the drivers of adoption and highlight the need for a more nuanced understanding of the decision-making process. The practical and theoretical implications of my research underscore the importance of continued research in this area, as the use of cryptocurrencies in commerce is likely to increase in the coming years.

As the historical data on cryptocurrencies continues to develop, it will be interesting to see if companies change their stance on using them as a means of payment. To fully understand this phenomenon, further research should focus on how knowledge, social and cultural background, and other factors may influence a company's decision to accept or reject cryptocurrencies. The main focus of further research should be a relationship between knowledge and education about cryptocurrencies and the adoption of these digital assets as a means of payment. How does a company's level of knowledge and education about cryptocurrencies impact its willingness to adopt them as a payment method? How do cultural attitudes and perceptions toward cryptocurrencies impact the adoption of these assets as a payment method in different industries or regions? What role do industry associations and trade groups play in promoting the adoption of cryptocurrencies as a payment method? Which industries are more inclined towards accepting cryptocurrencies as a means of payment? The answers to these questions are likely to bring interesting and important insights to the debate on cryptocurrencies as means of payment. This valuable information will be critical for policymakers, businesses, and other stakeholders as they navigate the rapidly evolving space of cryptocurrencies and seek a deeper understanding of the advantages and disadvantages of

cryptocurrencies. Ultimately, a deeper understanding of these issues will be crucial for realizing the full potential of cryptocurrencies and blockchain technology in the global economy.

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APPENDIX

Appendix 1: Slovenian summary

Kriptovalute kot plačilno sredstvo so danes aktualna tema mnogih razprav, v katerih se sprašujejo o njihovih značilnostih, uporabnosti in zakonitostih. Ne glede na stališče posameznika ne moremo zanikati dejstva, da imajo kriptovalute velik vpliv na svetovno ekonomijo in družbo. Eno izmed bolj perečih vprašanj, ki se pojavljajo v različnih razpravah o kriptovalutah, je, ali bodo kriptovalute v prihodnje vsakodnevno plačilno sredstvo (Liu, Li, Karame & Asokan, 2018). To vprašanje se ne pojavlja samo v večjih državah, kot so Združene države Amerike in Ljudska republika Kitajska, temveč tudi v manjših, kot je Slovenija. Kljub dejstvu, da je Slovenija napredna in ambiciozna na področju kriptovalut (Vidrih, Bivic Plankar & Blaj, 2020), raziskava kaže, da podjetja niso naklonjena sprejemanju kriptovalut. Razlogi podjetij za sprejemanje oziroma nesprejemanje kriptovalut kot plačilnega sredstva niso samo finančne oziroma "trendovske" narave, temveč je treba upoštevati tudi družbena in filozofska prepričanja podjetij. Tako igrajo vrednote in prepričanja podjetij veliko vlogo pri odločitvi, ali naj podjetje sprejme kriptovalute kot plačilno sredstvo. Nekatera podjetja sprejemajo kriptovalute kot plačilno sredstvo, ker se poistovetijo z njihovo idejo o neodvisnosti od finančnih institucij, decentralizaciji in inovaciji. Na drugi strani pa nekatera podjetja izražajo zaskrbljenost nad volatilnostjo, varnostjo in zakonodajo kriptovalut in se zaradi tega ne odločijo za sprejemanje le-teh. Končna odločitev za sprejemanje kriptovalut kot plačilnega sredstva zato ne zajema samo finančnih oziroma trendovskih razlogov, temveč tudi vrednot in prepričanj podjetij.

Namen magistrskega dela je prispevati k raziskavi vzrokov in motivov podjetij za odločitev o sprejemanju kriptovalut kot plačilnega sredstva. Kriptovalute, zlasti bitcoini, veljajo za enega izmed najrevolucionarnejših izumov in predstavljajo investicijsko kot tudi poslovno priložnost za podjetja. Ta naloga bo predstavila miselnost podjetij in njihove glavne razloge za sprejem kriptovalut kot plačilnega sredstva. Osrednji cilj raziskave je ugotoviti, ali slovenska podjetja sprejemajo kriptovalute zaradi njihovih lastnosti in prednosti ali pa imajo podjetja druge motive in razloge.

Glavna literatura obsega znanstvene članke, poročila vladnih in finančnih institucij ter publikacije preteklih raziskav na temo kriptovalut. Glede sprejemanja kriptovalut kot plačilnega sredstva je bilo malo kvantitativnih podatkov, vendar kljub temu veliko kvalitativnih virov kaže na to, da se podjetja pogosto soočajo s tem vprašanjem.

Denar, ne glede na obliko, mora izpolnjevati tri primarne funkcije – menjalno sredstvo za trgovanje, obračunska enota za določanje cen in hranilec vrednosti (European Central Bank, 2019). Danes je najpogosteje uporabljen t. i. fiat denar, ki ga predstavljajo uradne valute centralnih bank (ameriški dolar, evro, švicarski frank itd.) (Chen, 2022). Pomembno je omeniti, da vrednost denarja ne temelji na intrinzični vrednosti, temveč na povpraševanju in ponudbi ter zaupanju družbe (Chen, 2022). Čeprav fiat denar dobro izpolnjuje funkciji menjalnega sredstva in obračunske enote, kritiki trdijo, da zaradi njegove neomejene ponudbe, za katero skrbijo centralne banke, fiat denar ni dober hranilec vrednosti (Ammous,

2018). Zagovorniki kriptovalut tako trdijo, da so kriptovalute boljša alternativa fiat denarju, saj so poleg menjalnega sredstva in obračunske enote tudi dober hranilec vrednosti. To je mogoče zaradi omejene ponudbe kriptovalut in t. i. protiinflacijskih protokolov (npr. sežiganje kovancev; angl. burning tokens) (Barsby, 2022). Kritiki kriptovalut na drugi strani poudarjajo, da so kriptovalute zaradi visoke volatilnosti njihovih cen neprimerne za izpolnjevanje funkcije obračunske enote (Mattke et al., 2020), izpostavljene so kibernetiskim napadom (Kubinec, 2022), potrebujejo internetno povezavo za delovanje (Statista Research Department, 2022a) in da je njihova adopcija v svetu zanemarljiva (Chen, 2022).

Industrija kriptovalut velja za dinamično in hitro spreminjajočo, saj je strošek za izdajo nove kriptovalute praktično minimalen (Fleck, 2022). Na začetku je v industriji prevladoval predvsem Bitcoin, ki je leta 2014 predstavljal 79 % tržne kapitalizacije (Fleck, 2022). Z iznajdbo novih valut je delež tržne kapitalizacije bitcoina začel padati in je 16. avgusta 2022 znašal 40 % (Slickcharts, 2022). Po podatkih Statista Research Department (2021) so globalne investicije v industrijo kriptovalut leta 2021 znašale 30 milijard dolarjev, kar je šestkrat več kot leta 2020. Leto 2021 je bilo tudi rekordno glede tržne kapitalizacije kripto industrije, saj je celotna tržna kapitalizacija dosegla 3 bilijone dolarjev (CoinGecko, 2022). Kljub padcu tržne kapitalizacije na 1,2 bilijona dolarjev se bo število uporabnikov kriptovalut v prihodnosti še povečalo (Hon et al., 2022). Trenutno so globalni trendi v kriptoindustriji:

Institucionalna adaptacija kriptovalut – vstop globalnih korporacij, kot so Microsoft, Twitter, Wikipedia, Tesla, Emirates, Starbucks, Shopify, Tag Heuer (CNBC, 2022; Map.Bitcoin, 2022; Modderman, 2022). Plačevanje s kriptovalutami je v Sloveniji izjemno priljubljeno med manjšimi podjetji, kot so bari, restavracije, galerije, optike, zobozdravstvene ordinacije, trgovine s športno opremo in podobno. Po podatkih GoCrypto (brez datuma) obstaja več kot 1.300 barov, restavracij, športnih objektov in trgovin, ki sprejemajo plačila s kriptovalutami.

Decentralizirane finance (DeFi) – koncept, pri katerem se tradicionalne finančne transakcije opravljajo s pomočjo tehnologije veriženja blokov. Prednost DeFi je v tem, da za izvedbo finančne transakcije ne potrebujemo posrednika, kot je na primer banka (Howarth, 2022).

Nezamenljivi žetoni (NFT) – nezamenljivi žetoni so unikatni žetoni, ki dajo lastniku potrdilo o lastništvu nekega digitalnega oziroma fizičnega blaga (DeNicola, 2022). Glavna razlika med nezamenljivimi žetoni in ostalimi kriptovalutami je ta, da je vsak nezamenljiv žeton edinstven in ima unikatne lastnosti (DeNicola, 2022). NFT-je najpogosteje najdemo v fotografski, slikarski, filmski ali glasbeni industriji (Clark, 2021).

Vladne regulacije – velike vladne in finančne institucije, kot so Evropska centralna banka, Mednarodni denarni sklad in ameriška Komisija za vrednostne papirje in borzo, ne priznavajo kriptovalut kot denar. Od 1. julija 2022 zahteva Evropska unija, da vsa podjetja, ki se

ukvarjajo s kriptovalutami, delujejo z licenco ter da izdajatelji stabilnih kovancev (angl. stablecoinov) imajo rezerve, kot jih imajo banke, kar omogoča boljši nadzor nad sektorjem kriptovalut (Denton, 2022). Leta 2020 je Ameriški urad za preprečevanje pranja denarja predlagal zakon, ki bi od borz zahteval, da v primeru transakcije z vrednostjo nad 10.000 ameriških dolarjev posredujejo poročilo in identifikacijo lastnika denarnice (angl. wallet), in sicer v primeru da denarnica ni gostovana na borzi (Weinberger, 2021). Leta 2022 je predsednik Združenih držav Amerike Joe Biden podpisal izvršni ukaz, ki zagotavlja "celovit pristop vladnih institucij k naslavljanju tveganj in izkoriščanju potencialnih koristi digitalnih sredstev in njihove podlage v tehnologiji" (Adams, 2022). Tudi azijske države, kot sta Južna Koreja in Japonska, so zaostrole regulacije – decembra 2021 je Japonska agencija za finančne storitve predlagala novo zakonodajo za reguliranje izdajateljev stabilnih kovancev, da bi omejila možnosti pranja denarja in se odzvala na tveganja za stranke (Tezuka et al., 2021). Južnokorejska vlada je uvedla zakonodajo, ki zahteva, da morajo investitorji v kriptovalute uporabljati enako ime na svojih virtualnih denarnicah, kot ga uporabljajo na svojih bančnih računih (Stangarone, 2021).

Stabilni kriptokovanci in centralnibančna digitalna valuta (CBDC) – stabilni kriptovaluti (angl. stablecoins) sta kriptovaluti, katerih vrednost je povezana z drugimi sredstvi, kot sta zlato ali ameriški dolar. Zaradi manjše volatilnosti so stabilni kriptokovanci še posebej priljubljeni v decentralizirani finančni industriji (DeFi), ki uporablja kriptovalute za plačila in posojila (Best, 2022a). Zaradi te značilnosti so stabilni kriptokovanci bolj zaželeni kot "klasične" kriptovalute, katerih tržna vrednost se lahko hitro spreminja zaradi spremenljivih transakcijskih stroškov ali nihanj cen (Best, 2022a). Po podatkih BTCtools (2022) je bila skupna tržna vrednost stabilnih kriptokovancev 16. avgusta 2022 ocenjena na 151 milijard dolarjev, kar je približno desetkrat več kot skupna tržna vrednost stabilnih kriptokovancev leta 2020. Poleg tega se stabilni kriptokovanci obravnavajo kot prototip ali navdih za centralne digitalne valute (CBDC) (Best, 2022a). CBDC-ji so elektronski denar (temelječ na nacionalni valuti), ki omogočajo podjetjem in posameznikom neposredne elektronske finančne transakcije brez potrebe po posredniku (komercialnih bankah) (Smith, 2022). Po podatkih Mednarodnega denarnega sklada CBDC-je že proučuje več kot 100 držav, pri čemer imajo nekatere države, kot npr. Kitajska, že v obtoku svoje CBDC-je (Georgieva, 2022).

Za nadaljnje poglobljeno razumevanje teme so bili izvedeni trije intervjuji. Prvi intervju je bil opravljen z Žanom Poglajenom, poslovnim razvijalcem in vodjo kriptomarketinga pri podjetju GoCrypto – podjetju, ki ponuja kriptoplačilne rešitve (programske in strojne). Vprašalnik je bil poslan v obliki odprtega vprašalnika po e-pošti, njegov namen pa je bil pridobiti boljše razumevanje prednosti in slabosti, ki jih kriptovalute kot plačilno sredstvo prinašajo podjetjem in posameznim strankam. Sogovornik je navedel, da GoCrypto (plačilno omrežje) omogoča plačevanje s tremi različnimi denarnicami: Binance Pay, Bitcoin.com Wallet in Elly Wallet, ki skupaj podpirajo več kot 50 različnih kriptovalut. Prednosti sprejemanja kriptovalut kot plačilnega sredstva so nižji stroški transakcije, takojšnje izplačilo ob uporabi kriptovalut, širši segment strank, privlačnost premožnejših strank,

boljša prepoznavnost zaradi priljubljenosti kriptovalut kot globalne teme. Edina pomanjkljivost, ki jo je sogovorec omenil, je nestanovitnost cene kriptovalut. Ko gre za prednosti kriptovalut kot plačilnega sredstva za potrošnike, je respondent navedel, da so priročne, saj jih je mogoče uporabljati za vsakodnevne nakupe prek priljubljenih platform in denarnic, kot sta Bitcoin.com Wallet in Binance Pay. Respondent je omenil tudi pomanjkljivosti, kot so omejeno število trgovcev/podjetij, ki sprejemajo kriptovalute, ter omejeno znanje o postopku plačevanja s strani trgovcev/podjetij, saj kriptoplačila niso redna. Pomembno je opaziti, da podjetja lahko sprejemajo plačila v kriptovalutah, vendar je od njih odvisno, ali želijo izplačilo v obliki fiat denarja ali pa želijo prenesti kriptovalute na svojo zaupanja vredno kriptodenarnico. Sogovorec je poudaril, da velikost podjetja ni pomembna pri sprejemanju kriptovalut kot plačilnega sredstva – pomembna je mentaliteta podjetja in njegovo sprejemanje novih trendov.

Drugi intervju je bil izveden osebno s Jakom Erjavcem, svetovalcem za ISM in infrastrukturo pri upravnem odboru skupine Kriptomat. Kriptomat je spletna menjalnica, ki ponuja hitre, varne in enostavne postopke nakupa, prodaje in shranjevanja digitalnih valut (Kriptomat, brez datuma). Glavni namen intervjuja je bil pridobiti boljše razumevanje stališča menjalnice o kriptovalutah kot plačilnem sredstvu ter kakšni izzivi morajo biti premagani, da bi kriptovalute postale vsakdanje plačilno sredstvo. Na vprašanje o možnosti kriptovalut kot plačilnega sredstva je sogovornik dejal, da verjame, da bodo ljudje v prihodnosti uporabljali kriptovalute kot plačilno sredstvo, vendar meni, da največja in najbolj znana kriptovaluta bitcoin ne bo najbolj priljubljena kriptovaluta za plačila, saj se obravnava bolj kot "digitalno zlato" in ljudje ga ne bi radi porabljali za vsakodnevne nakupe. Poleg tega sogovornik meni, da bi lahko centralne bančne digitalne valute (CBDC) postale najpogostejše uporabljane in priljubljene kriptovalute za vsakodnevne nakupe. Da bi preprečili centralizacijo in nadzor nad monetarno politiko, je sogovornik predlagal sistem, v katerem bi vlade določile "pravila igre", medtem ko bi tretja stranka, kot je Tether Limited Inc., skrbela za kriptovalute in njihovo monetarno politiko. To bi preprečilo, da bi vlade popolnoma nadzorovale kriptovalute in imele prevelik vpliv na njihovo monetarno politiko.

Sogovornik je dejal tudi, da po njegovem mnenju podjetja in institucije še vedno vidijo kriptovalute kot naložbo, ne pa kot zanesljivo plačilno sredstvo. Za širšo sprejetost kriptovalut kot plačilnega sredstva sogovornik meni, da so potrebni skupni predpisi za menjalnice in institucije v vseh državah (npr. Evropska unija), pri čemer je treba postopke, kot so ustvarjanje denarnice, "spoznajte svojega kupca" (KYC) in plačilo poenostaviti in jih narediti bolj uporabniku prijazne. Sogovornik prav tako verjame, da se bo širša sprejetost in uporaba kriptovalut kot plačilnega sredstva do neke mere zgodila "naravno", saj bodo mlajše generacije, ki so bolj tehnično podkovane, kmalu imele največjo kupno moč. Sogovornik je prav tako omenil spremembe borz, saj se bodo morale prilagoditi in postati bolj lokalizirane, da bi zadovoljile potrebe strank.

Tretji intervju je bil opravljen s člani podjetja Orcabay – Crypto Market & Algo Trading. Udeleženci v intervjuju so bili Jakob Brezigar (izvršni direktor in soustanovitelj), Peter

Opara (izvršni direktor in soustanovitelj) ter Domen Kržišnik (tehnični direktor in soustanovitelj). Na vprašanje o možnosti kriptovalut kot načina plačila so odgovorili, da je zelo pomembno razlikovati med podjetji, ki so "rojeni" iz kripto- in blockchain industrije (ang. crypto native) ter podjetij, ki so se odločila sprejeti kriptovalute. Po njihovem mnenju so kriptorojena podjetja tista, ki izhajajo iz kripto- in "blockchain" industrije ter se osredotočajo na zagotavljanje storitev in izdelkov, povezanih s temi tehnologijami. Za razliko od tradicionalnih podjetij, ki so morda dodala ponudbe "blockchain" in kriptovalut k svojim obstoječim poslovnim modelom, so kriptorojena podjetja, ustanovljena z namenom gradnje decentraliziranih rešitev in izkoriščanja prednosti "blockchain" tehnologije. Pravijo, da bodo kriptorojena podjetja bolj opazila ali koristila prednosti kriptovalut kot sredstva plačila kot tradicionalna podjetja, saj se ta ne soočajo s problemi, ki bi jih lahko rešili z uporabo kriptovalut kot sredstva plačila. Podjetje Orcabay sprejema (in raje uporablja) plačila s kriptovalutami, saj večinoma prodaja storitve tujim podjetjem. Največje prednosti kriptovalut kot plačilnega sredstva so po njihovem mnenju nižji stroški transakcij, meje presegajoča globalna plačila in takojšnji denarni tok, saj se transakcije poravnajo v nekaj minutah ne glede na geografsko razdaljo. Poleg tega so izjavili, da decentralizacija omogoča, da poslujejo brez posrednikov, kot so banke in druge finančne institucije.

Za boljše razumevanje finančnih in tehničnih razlogov podjetij pri sprejemanju kriptovalut kot plačilnega sredstva, je bilo naključno izbranim 200 slovenskim podjetjem od 1300-ih, ki sprejemajo kriptovalute kot plačilno sredstvo, poslan vprašalnik v obliki Likertove lestvice. Podjetja so bila naključno izbrana s pomočjo Coinmap (2022). Izmed 200 naključno izbranih podjetij jih je bilo v anketih pripravljeno sodelovati 20. Po analizi odgovorov, sem dobil 18 veljavnih rezultatov. Za merjenje motivacij za sprejetje kriptovalute kot plačilnega sredstva je treba upoštevati dve dimenziji – utilitarno navdušenje in prepričanje v revolucionarno naravo tehnologije. Utilitarno navdušenje se nanaša na zaznavanje koristi kriptovalute za poslovanje in lahko vpliva na dejavnike, kot so ozaveščenost o obstoječih poslovnih razpravah in praksah ter stališča potrošnikov. Prepričanje v revolucionarno naravo kriptovalute pa zahteva globlje razumevanje tehnologije in njenega potencialnega vpliva. Skupaj lahko te dimenzije zagotovijo vpogled v dejavnike, ki spodbujajo sprejetje kriptovalut kot plačilnega sredstva.

Za podrobnejše razumevanje razlogov podjetij je anketni vprašalnik vseboval pet različnih vprašanj glede trendov/finančnih razlogov za sprejemanje kriptovalut. Vprašanja so raziskovala, ali so podjetja sprejela kriptovalute zaradi njihove priljubljenosti, prepričanja, da bodo kmalu postale široko sprejeta oblika plačila, sprejetja kriptovalut s strani velikih podjetij, ugodne davčne ureditve ali za doseg novih strank. Poleg tega so udeleženci odgovorili na pet vprašanj glede tehničnih/vednostnih razlogov za sprejemanje kriptovalut. Vprašanja so se nanašala na to, ali so zaposleni poučeni o tehnologiji veriženja blokov, različnih ekosistemih, kot so NFT-ji in kovanci za metavers, ali podjetje sprejema kriptovalute zaradi njihove decentralizirane narave, hitrih in varnih transakcij in nižjih stroškov prenosa, ter ali podjetje vidi kriptovalute kot alternativo obstoječim finančnim

sistemom. Rezultati te ankete zagotavljajo dragocen vpogled v motivacije za sprejetje kriptovalut kot plačilnega sredstva v podjetjih. Udeleženci so nato morali izbrati možnosti od 1 do 5: 1 – popolnoma se ne strinjam, 2 – ne strinjam se, 3 – nevtralen, 4 – strinjam se, 5 – popolnoma se strinjam. Za lažje izračunavanje in analizo rezultatov so bili odgovori dodatno zakodirani. Vsak odgovor "popolnoma se strinjam" šteje za 1 točko, "strinjam se" za $\frac{1}{2}$ točke, nevtralen odgovor za 0 točk, "ne strinjam se" za $-\frac{1}{2}$, in "popolnoma ne strinjam se" za -1 točko. Za vsak niz vprašanj o trendih in za niz tehničnih vprašanj je na voljo največ 5 in najmanj -5 točk.

Povprečje za dojetje uporabne navdušenosti je enako $-0,03125$, kar kaže na to, da je odločitev za sprejetje kriptovalut kot načina plačila povezana s trendovskimi/finančnimi razlogi nevtralna in da zunanji dejavniki niso vplivali na odločitev podjetij o sprejemanju kriptovalut. Kar zadeva tehnične razloge, je aritmetično povprečje enako $-0,5625$, kar kaže na to, da zaposleni niso dovolj izobraženi o kriptovalutah, zato bi lahko odločitev podjetij, da ne sprejemajo kriptovalut, bila povezana z znanjem, ki ga imajo. Čeprav negativno povprečje na tehnični lestvici ni presenetljivo (Steinmetz et al., 2021), anketiranci niso pokazali posebnega navdušenja s finančnega vidika. Pričakovali bi, da bodo podjetja, ki sprejemajo kriptovalute kot način plačila, podprla svojo odločitev s povečanim zanimanjem za kriptovalute. Kljub naraščajočemu številu uporabnikov kriptovalut po vsem svetu, pri čemer je število ocenjeno na 420 milijonov uporabnikov, naraščujočemu trendu novih uporabnikov (TrippleA, 2023) in naraščujoči ravni javnega zanimanja za kriptovalute po svetu (Young, 2022), Slovenija še ni dosegla podobne stopnje navdušenja.

V večini primerov odločitev za sprejetje kriptovalut kot načina plačila predstavlja praktično odločitev, ki ponuja nizkocenovno alternativno plačilno metodo za stranke. Rezultati te raziskave so pokazali, da odločitev za sprejem kriptovalut običajno ni sprejeta na podlagi zaznavanja tehnologije ali ideologije, ki jo podpira. Rezultati ankete kažejo, da večina podjetij nima močnih mnenj glede trendovskih/finančnih razlogov ali tehničnih razlogov za sprejem kriptovalut kot načina plačila. Nobeno podjetje se ni popolnoma strinjalo (5 točk) ne s trendovskimi/finančnimi razlogi (x-os) niti s tehničnimi razlogi (y-os). Dve podjetji sta izrazili močno nestrinjanje (-5) s trendovskimi/finančnimi razlogi (x-os), eno podjetje pa se je močno nestrinjalo s tehničnimi razlogi (y-os). Skupno gledano rezultati kažejo, da je odločitev za sprejem kriptovalut kot načina plačila v veliki meri odvisna od praktičnih vidikov in dodatne ponudbe plačila strankam, ne pa od globljega razumevanja ali prepričanja v tehnologijo ali finančni trend kriptovalut. Poleg tega to poudarja kompleksno razmerje med podjetji in kriptovalutami kot načinom plačila. Čeprav so se nekatera podjetja odločila sprejeti kriptovalute, to še ne kaže nujno na prepričanje v osnovno ideologijo ali tehnologijo za njimi. Ta ugotovitev poudarja večplastno naravo odločitve za sprejetje ali zavrnitev kriptovalut in nakazuje, da to ni povsem odvisno od finančnih ali trendovskih razlogov, temveč da lahko podjetja sprejmejo kriptovalute iz različnih motivov, je zanimiv vidik trenutnega stanja.

Rezultati raziskave opozarjajo na pomanjkljivosti dosedanjih raziskav in poudarjajo potrebo po nadaljnjem raziskovanju motivacij za sprejetje kriptovalut s strani podjetij. Za podjetja, ki opravljajo mednarodne transakcije, lahko kriptovalute ponujajo prednosti, kot so nižji stroški transakcij, brezmejna globalna plačila in takojšnji denarni tok. Poleg tega so lahko kriptovalute kot plačilno sredstvo koristne za podjetja, ki se ukvarjajo z luksuznimi izdelki, saj jih naredijo privlačnejše za premožnejše stranke, ki so velikokrat tehnološko napredne. Glavne ovire za širšo uporabo kriptovalut je nizko zanimanje in sprejetost javnosti ter nizek nivo znanja med potrošniki in podjetji. Kljub tem oviram pa se lahko podjetja vseh velikosti koristno odločijo za sprejem kriptovalut, saj so nizki stroški implementacije, potencial za povečano zadovoljstvo strank, izboljšana finančna uspešnost in razlikovanje od konkurence vredni upoštevanja. Skupaj gledano, raziskovalni rezultati zagotavljajo dragocene vpoglede za podjetja, ki želijo izkoristiti kriptovalute kot način plačila in poudarjajo potrebo po nadaljnjem raziskovanju na tem področju, še posebej za podjetja, ki prodajajo storitve tujim strankam.

Proces raziskave je vključeval dve fazi, in sicer zbiranje sekundarnih podatkov za teoretično raziskavo in gradnjo ter zbiranje primarnih podatkov s pomočjo anket in intervjujev. Sekundarni podatki so služili kot temelj raziskave in so pomagali razumeti trenutno stanje na tem področju. Rezultati iz primarnih podatkov, zbranih s pomočjo anket in intervjujev s podjetji, so ovrgli razloge za sprejetje kriptovalut kot načina plačila, ki so bili ugotovljeni na podlagi sekundarnih podatkov. Zdi se, da se mnoga podjetja v Sloveniji odločijo sprejeti kriptovalute kot način plačila, ker vzpostavitev tega plačilnega sistema ne stane veliko, pritegnejo lahko nove stranke in lahko si tudi pomagajo izboljšati njihov ugled. Ta podjetja se ne zdijo zaskrbljena zaradi tehničnih razlogov in se ne obremenjujejo s podrobnostmi, kako kriptovalute delujejo. Namesto tega so osredotočena na takojšnje koristi sprejemanja teh sredstev in se ne zdijo zaskrbljena zaradi dolgoročnih možnosti kriptovalut. Čeprav lahko obstajajo drugi dejavniki, ugotovitve kažejo, da so podjetja v glavnem motivirana s kratkoročnimi vidiki, ko gre za sprejemanje kriptovalut kot načina plačila.