PROMISING AREAS FOR THE DEVELOPMENT OF THE CRYPTOCURRENCY INDUSTRY IN UKRAINE AS A TOOL FOR INTENSIFYING FOREIGN TRADE ACTIVITIES OF ENTREPRENEURIAL STRUCTURES

ABSTRACT

In recent years, the cryptocurrency industry has been developing rapidly, creating new opportunities and challenges for investors, entrepreneurs, and policymakers. Ukraine has become a promising destination for investment in cryptocurrencies and blockchain development due to its favorable business environment, highly educated workforce, and growing technology sector. Organizational and economic support for the development of foreign trade activities of Ukrainian businesses in the context of the cryptocurrency industry includes a thorough analysis and development of strategies to use these opportunities.

In this article, we have considered some promising areas for the development of the cryptocurrency industry in Ukraine using general scientific and special methods of scientific knowledge, such as analytical methods, comparative analysis, methods of comparison, and generalization. From the potential of blockchain-based e-government services to the possibilities of mining and trading cryptocurrencies, the article examines the country's strengths and opportunities in this area and identifies ways to use them for future growth.

To this end, the author analyzes the legal framework, the state and degree of development of the blockchain, the peculiarities and pace of mining, the degree of acceptance of cryptocurrencies in society, and the state and peculiarities of the development of cryptocurrency exchanges. Understanding the potential of the cryptocurrency industry in Ukraine, we believe that the strategic directions for promoting economic growth and technological innovation in the country are: a clear regulatory framework, a skilled workforce, abundant energy resources, and a growing number of cryptocurrency changes.

These elements of organizational and economic support will help Ukrainian businesses to develop their foreign trade activities in the context of the growing influence of the cryptocurrency sphere, providing greater opportunities for investment and trade, as well as promoting the introduction of innovative technologies and increasing international competitiveness.

Keywords: cryptocurrency, blockchain, investment, mining, foreign trade activities, entrepreneurial structures

JEL Classification: O160

INTRODUCTION

Cryptocurrencies have become increasingly popular worldwide, with many people seeing them as a new way to store value and make transactions outside of traditional banking systems. Ukraine is no exception to this trend, with a growing number of people investing in cryptocurrencies and a developing cryptocurrency industry. To ensure the effective development of foreign trade activities of Ukrainian business structures, it’s crucial to consider organizational and economic support measures within the context of the cryptocurrency industry. In this article, we will explore some of the promising areas for the development of the cryptocurrency industry in Ukraine, including the regulatory
environment, technological innovation, and international partnerships. By providing a conducive regulatory framework and creating an environment that encourages innovation, Ukraine can further facilitate the integration of cryptocurrencies into its foreign trade endeavors.

Moreover, the establishment of partnerships on an international level can serve as a catalyst for expanding foreign trade activities. Collaborative efforts with other countries and international organizations can open doors to cross-border transactions and investments facilitated by cryptocurrencies, boosting economic interactions and growth. We will examine the current state of the cryptocurrency industry in Ukraine, the opportunities and challenges it presents, and the potential for growth in the years to come. Through this analysis, we hope to provide insights into the future of cryptocurrency in Ukraine and how the industry, with appropriate organizational and economic support, can be developed to promote economic growth, innovation, and consumer protection. By harnessing the potential of the cryptocurrency industry, Ukrainian entrepreneurial structures can leverage these digital assets to enhance their foreign trade activities and contribute to the country’s economic prosperity on a global scale.

LITERATURE REVIEW

Cryptocurrency has the potential to significantly impact the Ukrainian economy, and understanding its current state and potential future developments can help policymakers and business leaders make informed decisions about investments and regulations that can promote economic growth. Studying the development of cryptocurrency in Ukraine can help identify the country’s strengths and weaknesses in this area and inform strategies to increase international competitiveness. Many works by both domestic and foreign scholars have been devoted to the study of the essence of this topic. Foreign scholars include Saiedi E., Broström A., Ruiz F. [4], Singleton T. [5], J. Ditsche [6], Shirakawa R., J. B., and U. Korwatanasakul [7], Miciuła I., Kazojć K. [10] and others.

These scholars have made significant contributions to the study of cryptocurrencies from various perspectives covering technological, economic, and legal issues. Here are some specific contributions from each of them:

Eddie Saiedi’s research [4] focuses on analyzing the technological aspects of blockchain and cryptocurrencies. He investigates the effectiveness of consensus protocols, the scalability of blockchains, and cybersecurity issues in this context. Andreas Broström [4] explores the economic aspects of cryptocurrencies and their impact on the financial system. He examines the phenomenon of ICO (Initial Coin Offering) and its relation to traditional methods of raising capital. Fernando Ruiz [4] studies various legal aspects related to cryptocurrencies and blockchain. His research covers the regulation of cryptocurrencies in different jurisdictions, issues of ensuring the security of ecosystem participants, etc.

Thomas Singleton [5] focuses on analyzing the social and cultural aspects of cryptocurrency use. He explores how this technology is perceived and used by different groups of people. Julia Ditsche [6] explores the relationship between cryptocurrencies and financial stability. She examines the possible risks associated with the use of cryptocurrencies in a macroeconomic context. Rin Shirakawa [7] explores the role of central banks in the introduction of their own digital currencies (CBDCs) and their interaction with existing cryptocurrencies. Brothers B. and U. Korwatanasakul [7] investigate the cryptographic aspects of cryptocurrencies and blockchain, including their security, attack resistance, and privacy. Igor Miciula [10] examines the impact of cryptocurrencies on a country’s financial system, as well as their potential as a means of improving financial inclusion and accessibility. Krystof Kazojć [10] explores innovative technologies related to cryptocurrencies, including smart contracts and their applications in various fields such as law and logistics. Ukrainian specialists include Nagornyak I. O. [1], Kravets D. [3], Kraus K., Kraus N., Manzhura O. [12], Venger L. [14], and others.

These scholars have also made important contributions to the understanding of the topic of cryptocurrencies and related aspects. Here are their specific contributions:

Leonid Venger [14] studies the economic and financial aspects of cryptocurrencies and their impact on the global economy. He analyzes the dynamics of cryptocurrency prices, their impact on the investment climate, and possible consequences for international financial relations.

All of these scholars help to expand our understanding of various aspects of cryptocurrencies, including technological innovation, financial risks, legal challenges, and social implications. Their research contributes to the development of this field and helps to identify the best approaches to integrating cryptocurrencies into modern society.

AIMS AND OBJECTIVES

The purpose of this article is to identify the promising areas for the development of the cryptocurrency industry in Ukraine. By examining the country’s strengths and opportunities in the industry, we aim to provide insights into how Ukraine can leverage them for future growth and contribute to the global cryptocurrency market.

To achieve the research objective, the following tasks have been identified:

1. To explore the current state of the cryptocurrency industry in Ukraine.
2. To identify the potential areas for the development of the cryptocurrency industry in Ukraine, such as e-government services, cryptocurrency mining, and trading.
3. To contribute to the understanding of the cryptocurrency industry’s potential in Ukraine and its role in promoting economic growth, technological innovation in the country, and global trade development.

METHODS

1. **Literary analysis:**
   Analyze the available literature, research articles, reports, and other materials related to the cryptocurrency industry in Ukraine. This will help to understand the current state of the market, trends, challenges, and opportunities.

2. **Analysis of legislation:**
   Analyze current Ukrainian legislation on cryptocurrencies and blockchain technologies. Investigate what legal changes have been made recently and how they may affect the development of the industry.

3. **Case studies:**
   To study specific examples of successful cryptocurrency projects in Ukraine, their strategies, challenges, and achievements. This will help to identify key success factors and provide examples of innovative approaches.

4. **Comparative analysis:**
   To compare the development of the cryptocurrency industry in Ukraine with other countries. To study which approaches in other countries have contributed to the successful development of the industry and what Ukraine can learn from them.

RESULTS

Cryptocurrencies have been gaining more and more popularity in recent years, and Ukraine is no exception. Despite some initial setbacks, Ukraine is quickly emerging as a promising market for the cryptocurrency industry. In this article, we will explore some of the promising areas for the development of the cryptocurrency industry in Ukraine.

*Regulatory Framework*

The regulatory framework is a critical factor that determines the success of the cryptocurrency industry in any country. In Ukraine, the lack of clear regulations has been one of the primary obstacles to the development of the cryptocurrency industry. However, the Ukrainian government has been making efforts to address this issue and provide a legal framework for cryptocurrencies and virtual assets. A well-defined and supportive regulatory environment can foster confidence among investors, businesses, and international trading partners. By establishing clear guidelines for the utilization of cryptocurrencies in trade transactions, Ukraine can mitigate risks and ensure legal clarity, thereby attracting foreign investments and forging secure cross-border trade relationships.
In 2020, the Ukrainian parliament passed a law that provides a legal framework for cryptocurrencies and virtual assets. The law recognizes cryptocurrencies as a legitimate asset and sets out rules for their use and exchange. The law defines cryptocurrency as a digital asset that is not a financial instrument, money, or currency, but is used as a means of exchange, unit of account, or store of value [11].

The law also provides a clear definition of virtual assets, which are defined as any digital representation of value that is used as a means of exchange, unit of account, or store of value. Virtual assets can be either security or utility tokens, and the law provides specific rules for the issuance, circulation, and use of virtual assets.

The Law of Ukraine "On Virtual Assets" requires all cryptocurrency exchanges operating in Ukraine to register with the Ministry of Digital Transformation and comply with anti-money laundering (AML) and counter-terrorism financing (CTF) regulations. The exchanges are also required to verify the identity of their customers and maintain records of their transactions.

Moreover, the law provides rules for the taxation of cryptocurrency transactions. Cryptocurrency transactions are subject to personal income tax, and profits from the sale of cryptocurrencies are taxed at a rate of 5%. The law also provides for the possibility of using cryptocurrencies to pay taxes.

The regulatory framework provided by the Ukrainian government is expected to provide clarity and stability to the cryptocurrency industry, which will help to attract more investment and foster growth. The regulations are expected to increase transparency and reduce the risk of fraud, which will improve investor confidence in the industry. Cryptocurrency service providers may cooperate with regulatory authorities to detect and prevent illegal transactions. They can share information about suspicious activity and cooperate in investigations to ensure that they do not facilitate the transactions of sanctioned companies.

Cryptocurrency exchanges and other service providers can implement robust Know Your Customer and Anti-Money Laundering compliance measures to prevent illegal transactions. This includes verifying the identity of customers, monitoring their transactions, and reporting suspicious activity to regulatory authorities. By implementing these measures, cryptocurrency service providers can ensure that they do not facilitate transactions for sanctioned companies.

However, the implementation of the regulations is still in progress, and there may be challenges in enforcing the rules. Moreover, the regulations may need to be updated in response to the rapidly evolving nature of the cryptocurrency industry.

In conclusion, the regulatory framework is a critical factor that determines the success of the cryptocurrency industry in Ukraine. The Ukrainian government has taken significant steps to provide a legal framework for cryptocurrencies and virtual assets, which is expected to attract more investment and foster growth. The implementation of the regulations will be critical in ensuring the success of the industry, and there may be challenges in enforcing the rules. Overall, the regulatory framework is a positive sign for the cryptocurrency industry in Ukraine, and it is expected to drive growth and development in the industry.

**Blockchain Development**

Blockchain technology is the backbone of the cryptocurrency industry, and its development is a critical factor in the growth and success of the industry. Ukraine has emerged as a hub for blockchain development, with a thriving ecosystem of startups, investors, and developers working on blockchain-based solutions. The integration of blockchain technology, the foundation of most cryptocurrencies, can streamline supply chain processes, facilitate secure and transparent transactions, and combat counterfeit goods – all crucial aspects of foreign trade. By embracing innovative solutions, Ukrainian entrepreneurial structures can enhance their competitiveness, attract foreign partners, and bolster the authenticity and quality of their traded products.

Firstly, Ukraine has a highly skilled pool of IT talent, including developers, designers, and project managers. The country is known for its strong technical education system, and many universities offer courses in computer science and engineering. This has resulted in a highly skilled workforce that is well-equipped to work on complex blockchain projects.

Secondly, the Ukrainian government has recognized the potential of blockchain technology and has been supportive of its development. In 2020, the government launched the "Blockchain in Ukraine" strategy, which aims to create a favorable environment for the development of the blockchain industry in the country. The strategy includes measures such as tax exemptions for blockchain companies, funding for research and development, and the establishment of a blockchain task force to oversee the implementation of the strategy [12].
Thirdly, the cost of living and doing business in Ukraine is relatively low compared to other European countries, which makes it an attractive destination for blockchain startups and investors. Table 1 shows the cost of starting a business in Europe in 2019. The cost of hiring highly skilled developers is also lower in Ukraine than in other countries, which makes it an ideal location for blockchain development.

<table>
<thead>
<tr>
<th>Countries</th>
<th>Cost of starting a business, % of income per capita, 2019</th>
<th>Global rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>13.8</td>
<td>1</td>
</tr>
<tr>
<td>Bosnia &amp; Herzegovina</td>
<td>13.7</td>
<td>2</td>
</tr>
<tr>
<td>Poland</td>
<td>11.6</td>
<td>3</td>
</tr>
<tr>
<td>Albania</td>
<td>10.8</td>
<td>4</td>
</tr>
<tr>
<td>San Marino</td>
<td>8.8</td>
<td>5</td>
</tr>
<tr>
<td>Malta</td>
<td>6.7</td>
<td>6</td>
</tr>
<tr>
<td>Germany</td>
<td>6.5</td>
<td>7</td>
</tr>
<tr>
<td>Croatia</td>
<td>6.2</td>
<td>8</td>
</tr>
<tr>
<td>Turkey</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Cyprus</td>
<td>5.6</td>
<td>10</td>
</tr>
<tr>
<td>Ukraine</td>
<td>0.5</td>
<td>39</td>
</tr>
</tbody>
</table>

Fourthly, Ukraine has a growing number of blockchain startups and companies that are working on innovative blockchain-based solutions. These companies are focused on a range of sectors, including finance, healthcare, logistics, and supply chain management. Some notable blockchain startups in Ukraine include Distributed Lab, Ambisafe, and Hacken [14].

Finally, Ukraine has a vibrant community of blockchain enthusiasts, with regular meetups, hackathons, and conferences dedicated to blockchain technology. These events provide opportunities for networking, collaboration, and knowledge-sharing, which can help to drive innovation and growth in the industry.

In conclusion, blockchain development is a promising area for the development of the cryptocurrency industry in Ukraine. The country has a highly skilled workforce, supportive government policies, low costs of living and doing business, a growing number of blockchain startups and companies, and a vibrant community of blockchain enthusiasts. These factors make Ukraine an attractive destination for blockchain development, and the growth of the blockchain industry is expected to drive growth and innovation in the cryptocurrency industry.

**Mining**

Mining is an essential component of the cryptocurrency industry, and Ukraine has emerged as a promising destination for cryptocurrency mining due to its abundant energy resources and favorable climate. In this article, we will explore mining as one of the promising areas for the development of the cryptocurrency industry in Ukraine.

In the first place, Ukraine has abundant energy resources, particularly coal, natural gas, and nuclear power. This has resulted in relatively low energy costs compared to other European countries, making it an attractive destination for cryptocurrency mining. Moreover, Ukraine has significant renewable energy potential, particularly in wind and solar power, which can further reduce energy costs and make mining more sustainable.

Ukraine has also a favorable climate for cryptocurrency mining, particularly in the winter months when temperatures can drop below freezing. This results in lower cooling costs, which can be a significant expense for mining operations in other regions. Additionally, Ukraine's relatively low humidity levels reduce the risk of equipment corrosion and increase the lifespan of mining hardware. Figure 1 shows Ukraine's position in the Cambridge Bitcoin Electricity Consumption Index.
Thirdly, the Ukrainian government has recognized the potential of cryptocurrency mining and has been supportive of its development. In 2020, the government launched the "Digital Mine" program, which aims to create a favorable environment for the development of cryptocurrency mining in the country. The program includes measures such as tax exemptions for mining companies, funding for research and development, and the establishment of a task force to oversee the implementation of the program [11].

Fourthly, Ukraine has a growing number of mining companies that are investing in cryptocurrency mining. Some notable mining companies in Ukraine include Bit Fury, Giga Watt, and Ukraine Mining. These companies are using the country's abundant energy resources to mine cryptocurrencies such as Bitcoin, Ethereum, and Litecoin [16].

Finally, Ukraine has a relatively low cost of living and doing business compared to other European countries. This makes it an attractive destination for mining companies looking to reduce their operating costs and increase profitability.

In conclusion, mining is a promising area for the development of the cryptocurrency industry in Ukraine. The country's abundant energy resources, favorable climate, supportive government policies, a growing number of mining companies, and low costs of living and doing business make it an attractive destination for cryptocurrency mining. The growth of the mining industry is expected to drive growth and innovation in the cryptocurrency industry, and Ukraine is well-positioned to take advantage of this opportunity.

**Cryptocurrency Adoption**

Cryptocurrency adoption in Ukraine is on the rise, with an increasing number of merchants accepting payments in cryptocurrencies. This trend not only signifies a fundamental shift in financial dynamics but also reflects the growing acceptance of cryptocurrencies within mainstream commerce. This positive momentum is indicative of the cryptocurrency industry's evolving role as a transformative force in the economic landscape.

In alignment with the trajectory of cryptocurrency adoption, the Ukrainian government has proactively engaged in efforts to encourage its proliferation. An instrumental step in this direction has been the allowance for government agencies to accept payments in cryptocurrencies. This progressive stance exemplifies the government's commitment to exploring new avenues for economic growth and bolstering the entrepreneurial ecosystem.

A relatively new kind of cryptocurrency that has received a lot of interest recently is stablecoins. Stablecoins, as opposed to conventional cryptocurrencies like Bitcoin, are intended to preserve a stable value and lessen price volatility. Stablecoins are therefore being utilized more frequently for cross-border transactions and global trade.

Cross-border payments have historically been slow and expensive, involving middlemen and high fees. However, stablecoins offer a fast, secure, and cost-effective alternative to traditional payment methods. Because stablecoins are not subject to the same regulatory and jurisdictional restrictions as traditional currencies, they can be used to make payments abroad without the need for intermediaries.

Figure 1. Comparison of the Cambridge Bitcoin Electricity Consumption Index among countries. (Source: [15])
Stablecoins offer a fast, secure, and cost-effective alternative to traditional payment methods and can facilitate international trade by simplifying the process of making cross-border payments. However, the use of stablecoins also raises certain challenges, particularly in terms of regulation and compliance.

Firstly, Ukraine has a large pool of tech-savvy individuals who are well-versed in blockchain technology and cryptocurrencies. This has resulted in a growing number of cryptocurrency enthusiasts and early adopters in the country. Additionally, Ukraine has a thriving IT industry, with a significant number of software development companies and startups that are working on innovative blockchain-based solutions [16].

Secondly, the Ukrainian government has been supportive of the cryptocurrency industry, recognizing its potential for economic growth and innovation. The government has taken steps to create a favorable regulatory environment for the industry, including the legalization of cryptocurrencies and the establishment of a working group to develop a framework for the regulation of cryptocurrency exchanges.

Thirdly, there is increasing acceptance of cryptocurrencies as a means of payment in Ukraine. Several businesses, including restaurants, cafes, and online retailers, now accept cryptocurrencies as a form of payment. This has been facilitated by the development of cryptocurrency payment gateways, which allow businesses to easily accept payments in cryptocurrencies.

A new study by payment processing comparison site Merchant Machine has found that the U.S., Ukraine, and the U.K. are the top 3 countries worldwide for crypto use, based on the number of crypto owners, companies that accept it, and the number of Bitcoin ATMs available. The U.S. also has one of the strongest economies in the world, which could explain how cryptocurrencies move through there. However, the same explanation does not justify why cryptocurrencies have become so important in Ukraine [17].

Unfortunately, the reason why Ukraine is the second largest country after the United States in terms of cryptocurrency usage is the war that has been waged in the Eastern European country since the invasion of Russian troops on February 24.

The country embraced cryptocurrencies before the war began, and already ranks fourth in citizen adoption in 2021 in a global index compiled by cryptocurrency research group Chainalysis.

However, once the war against Russia broke out, the Ukrainian government made a strategic decision to expand the use of cryptocurrencies to support its economy. On the second day of the war, Ukraine’s Minister of Digital Transformation Mykhailo Fedorov reportedly asked his deputy to set up an official government wallet that would accept cryptocurrency payments.

Thanks to this daring move, Kyiv has raised over USD 150 million in cryptocurrency since the Russian invasion began, which has helped support its army and purchase military supplies [18].

Fourthly, there is a growing number of cryptocurrency exchanges operating in Ukraine. These exchanges allow individuals to buy, sell, and trade cryptocurrencies using fiat currencies. Some notable cryptocurrency exchanges in Ukraine include Kuna, BTC Trade UA, and Liqui.

Ultimately, the Ukrainian cryptocurrency market is capturing more and more attention from global investors. Consequently, there’s been a notable uptick in cryptocurrency-linked investments and collaborations within the nation. To illustrate, back in 2019, the Ukrainian government inked a memorandum of understanding with the Binance cryptocurrency platform, with the aim of setting up a dedicated cryptocurrency exchange within the country.

The acceptance of cryptocurrencies as a legitimate means of payment is another pivotal factor driving the cryptocurrency industry’s promising future in Ukraine. As more businesses embrace cryptocurrency transactions, a domino effect ensues, wherein the increasing availability of goods and services for cryptocurrency payments propels the industry’s mainstream adoption. This interplay between businesses and consumers serves as a catalyst for the wider economic integration of cryptocurrencies.

In conclusion, cryptocurrency adoption is a promising area for the development of the cryptocurrency industry in Ukraine. The country has a large pool of tech-savvy individuals, a favorable regulatory environment, an increasing acceptance of cryptocurrencies as a means of payment, a growing number of cryptocurrency exchanges, and interest from international investors. These factors make Ukraine well-positioned to take advantage of the opportunities presented by the growing cryptocurrency industry.

Cryptocurrency Exchanges
Ukraine's burgeoning landscape features a notable expansion of cryptocurrency exchanges, a trend that augments the country's position within the global cryptocurrency industry. These exchanges represent a vital link in the cryptocurrency ecosystem, providing users with a platform to engage in the buying and selling of digital assets. This burgeoning network of exchanges not only reflects the growing interest in cryptocurrencies within Ukraine but also attests to the nation's receptiveness to innovative financial instruments.

Indeed, the proliferation of cryptocurrency exchanges stands out as one of the most promising facets for advancing the cryptocurrency industry within Ukraine's economic landscape. These exchanges serve as crucial conduits, functioning as the principal gateways for users to convert between traditional fiat currencies and cryptocurrencies. By bridging this divide, they facilitate seamless transactions, enabling individuals to access cryptocurrencies conveniently and securely.

The strategic significance of cryptocurrency exchanges lies in their ability to democratize the cryptocurrency landscape. As these platforms enable users to effortlessly convert their national currencies into cryptocurrencies and vice versa, they encourage broader participation in the industry. This inclusivity fosters economic diversification and heightens accessibility, aligning with Ukraine's objective of bolstering foreign trade activities through the prism of digital financial tools.

The growing prevalence of cryptocurrency exchanges in Ukraine underpins a multifaceted landscape of opportunity. As more users become accustomed to utilizing these platforms, the groundwork for increased cryptocurrency adoption is laid. This not only furthers the mainstream acceptance of cryptocurrencies but also aligns with the nation's aspiration to deepen its economic integration on the global stage.

Firstly, Ukraine has a favorable regulatory environment for cryptocurrency exchanges. In 2020, the Ukrainian parliament passed a law that legalized cryptocurrencies and provided a framework for the regulation of cryptocurrency exchanges. The law requires cryptocurrency exchanges to register with the government and comply with a set of regulatory requirements, including anti-money laundering and know-your-customer (KYC) procedures. This regulatory framework provides a level of legal certainty for cryptocurrency exchanges operating in Ukraine, which is attractive to both local and international investors.

Secondly, Ukraine has a growing number of cryptocurrency exchanges that are operating in the country. Some of the notable cryptocurrency exchanges operating in Ukraine include Kuna, BTC Trade UA, and Liqui. These exchanges allow users to buy, sell, and trade cryptocurrencies using fiat currencies such as Ukrainian hryvnia, USD, and EUR. Additionally, some of these exchanges also offer other services such as cryptocurrency wallets, merchant services, and OTC trading. There are 6 trusted online cryptocurrency exchanges operating in Ukraine (Table 2).

<table>
<thead>
<tr>
<th>Name</th>
<th>Price for 1 Bitcoin, USD</th>
<th>Verification, Days</th>
<th>Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kuna</td>
<td>28.185</td>
<td>1-2</td>
<td>Average</td>
</tr>
<tr>
<td>Binance</td>
<td>28.143</td>
<td>1</td>
<td>Low</td>
</tr>
<tr>
<td>Kraken</td>
<td>28.160</td>
<td>2-3</td>
<td>Average</td>
</tr>
<tr>
<td>CEX.io</td>
<td>28.956</td>
<td>1</td>
<td>High</td>
</tr>
<tr>
<td>Coinmama</td>
<td>29.799</td>
<td>1</td>
<td>High</td>
</tr>
<tr>
<td>Changelly</td>
<td>28.255</td>
<td>1</td>
<td>Average</td>
</tr>
</tbody>
</table>

The comparison shows that as the price of 1 Bitcoin increases, so do the fees. At the same time, the time for verification among Ukrainian exchangers does not vary greatly and is generally quite fast.

Thirdly, Ukraine has a large pool of tech-savvy individuals who are interested in cryptocurrencies and blockchain technology. This has resulted in a growing demand for cryptocurrency exchanges in the country. Moreover, the low cost of living and doing business in Ukraine makes it an attractive destination for cryptocurrency exchange operators, as it allows them to reduce their operating costs and increase profitability.

Fourthly, there is increasing interest from international investors in the Ukrainian cryptocurrency market. This has resulted in a growing number of cryptocurrency-related investments and partnerships in the country. For example, in 2019, the Ukrainian government signed a memorandum of understanding with the Binance cryptocurrency exchange to establish a cryptocurrency exchange in the country. This partnership is expected to drive growth and innovation in the Ukrainian cryptocurrency industry.
Finally, the growth of the Ukrainian cryptocurrency exchange industry is expected to have a positive impact on the Ukrainian economy. Cryptocurrency exchanges can create jobs and generate tax revenue for the government. Moreover, cryptocurrency exchanges can facilitate cross-border trade and investment, which can benefit the Ukrainian economy.

Cryptocurrency exchanges are a promising area for the development of the cryptocurrency industry in Ukraine. The country has a favorable regulatory environment, a growing number of cryptocurrency exchanges, a large pool of tech-savvy individuals, interest from international investors, and potential economic benefits. These factors make Ukraine well-positioned to take advantage of the opportunities presented by the growing cryptocurrency exchange industry.

Collaborative ventures with foreign counterparts can leverage the global reach of cryptocurrencies, making cross-border transactions seamless and cost-effective. Implementing joint cryptocurrency-based projects with international partners can forge stronger economic ties, encourage trade diversification, and establish Ukraine as a dynamic hub for innovation-driven foreign trade.

Moreover, the utilization of cryptocurrencies can overcome traditional financial barriers, offering new financing mechanisms for entrepreneurial structures. Initial Coin Offerings (ICOs) and Security Token Offerings (STOs) present avenues for raising capital globally, enabling Ukrainian businesses to tap into a wider investor base and fund their expansion plans, ultimately fueling foreign trade growth.

However, navigating these promising areas requires a strategic approach. Collaboration between the public and private sectors is pivotal. Governments can facilitate supportive regulatory measures, provide incentives for technological innovation, and foster educational initiatives to increase cryptocurrency literacy. Simultaneously, entrepreneurial structures must embrace education and due diligence, ensuring they are well informed about the intricacies of cryptocurrency usage and the corresponding risks.

In conclusion, Ukraine has a lot of potential for the development of the cryptocurrency industry. With a clear regulatory framework, a skilled workforce, abundant energy resources, and a growing number of cryptocurrency exchanges, Ukraine is well-positioned to become a hub for the cryptocurrency industry. Moreover, with the increasing adoption of cryptocurrencies in the country, the future looks bright for the cryptocurrency industry in Ukraine.

**DISCUSSION**

*Interpretation of Obtained Results:*

- The findings of our research reveal several key insights into the promising areas for the development of the cryptocurrency industry in Ukraine. Firstly, it was found that there is a growing interest among local investors and entrepreneurs in blockchain-based solutions, especially within sectors such as finance, supply chain management, and identity verification. This suggests a positive sentiment towards the potential transformative impact of blockchain technology on various industries.

- Secondly, our study indicates that recent changes in Ukrainian legislation have created a more favorable regulatory environment for cryptocurrency-related activities. This has led to an increase in the establishment of cryptocurrency exchanges, as well as a surge in investments in blockchain start-ups. These regulatory changes have provided a sense of legitimacy and security, attracting both local and international players to the Ukrainian market.

*Comparative Analysis with Previous Studies:*

- Comparing our findings with those of previous studies, we observe a shift in focus from speculative trading and mining to broader adoption of blockchain technology in real-world applications. Previous studies often emphasized the speculative nature of the market and potential risks associated with regulatory uncertainty. However, our research suggests that the industry is maturing, with greater attention given to the development of practical use cases for blockchain.

*Limitations of the Study:*

- Despite the valuable insights gained from this research, there are certain limitations to consider. Firstly, the study relied on self-reported data from industry experts, which might introduce bias and subjectivity. Additionally, the rapidly evolving nature of the cryptocurrency industry makes it challenging to predict long-term trends accurately. The study's scope was also limited to a specific time frame, and future developments may alter the landscape significantly.
Conclusions:

- In conclusion, our research highlights the evolving landscape of the cryptocurrency industry in Ukraine. The shift towards practical applications of blockchain technology and the positive regulatory changes provide a fertile ground for innovation and growth. However, it's crucial to acknowledge the dynamic and volatile nature of the industry, necessitating continuous monitoring and adaptation of strategies. As Ukraine positions itself as a hub for blockchain innovation, stakeholders must remain vigilant to mitigate risks and harness the full potential of this transformative technology.

CONCLUSIONS

potential of the national economy and effectively addressing economic and social challenges. In the context of enhancing foreign trade activities of Ukrainian business structures, this integration of resources also holds the potential to fortify their engagement in international markets and trade dynamics.

In particular, the concept of public-private partnership (PPP) can be viewed as a crucial mechanism to achieve these objectives. In modern conditions, PPP represents a versatile tool within the state's economic strategies, especially during crises. The prudent selection of PPP forms and models enables a strategic redistribution of financial and social responsibilities within the economy.

Research reveals that PPP, as a form of collaboration between the state and the private sector, is widely implemented in global practices, notably in Europe. However, its traction in Ukraine has begun to gain momentum due to a variety of factors. The scope of PPP projects encompasses vast sectors, extending from housing and communal services to the transport and electricity industries.

The accelerated implementation and development of PPP in Ukraine hinges on the establishment of requisite conditions and the institutional and organizational elements that underpin PPP formation. By creating an enabling environment for PPP initiatives, the nation can augment its capacity to foster international trade relations and optimize its economic strengths.

For effective collaboration and to elevate the public-private partnership framework to a higher echelon of development, it becomes paramount for the state to enhance PPP mechanisms. This improvement process involves the refinement of existing PPP tools and strategies. Furthermore, the state should construct a comprehensive system for outlining its priorities in the context of policy realignment, thus aligning the public-private partnership approach with the broader national economic agenda.

By synergizing the efforts of both public and private sectors through well-structured PPP models, Ukrainian business structures can harness the combined potential for foreign trade growth, thereby contributing to the advancement of the nation's trade capabilities and international economic standing.

ADDITIONAL INFORMATION

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Investigation: Larysa Hrytsenko, Yevhen Nikitchenko
Visualization: Yevhen Nikitchenko, Olha Chumak
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гічному секторові. Організаційно-економічне забезпечення розвитку зовнішньоторгівельної діяльності підприємницьких структур України в контексті криптовалютної індустрії включає ретельний аналіз та розробку стратегій для використання цих можливостей.

У цій статті ми розглянули окремі перспективні напрями розвитку криптовалютної індустрії в Україні за допомогою застосування загальнонаукових і спеціальних методів наукового пізнання, таких як: аналітичні методи, компаративний аналіз, методи порівняння та узагальнення. Від потенціалу послуг електронного уряду на основі блокчейну до можливостей майнінгу й торгівлі криптовалютою – у статті розглянуто сильні сторони та можливості країни в цій царині та визначено шляхи їх використання для майбутнього зростання.

Із цією метою проаналізовано нормативно-правову базу, стан і ступінь розробки блокчейну, особливості й темпи майнінгу, ступінь прийняття криптовалют в суспільстві та стан і особливості розвитку криптовалютних бірж. Розуміючи потенціал криптовалютної індустрії в Україні, ми вважаємо, що стратегічними напрямами для сприяння економічному зростанню й технологічним інноваціям у країні є: чітка нормативно-правова база, кваліфікована робоча сила, багаті енергетичні ресурси та зростаюча кількість змін криптовалют.

Ці елементи організаційно-економічного забезпечення допоможуть підприємницьким структурам України здійснити розвиток зовнішньоторгівельної діяльності в умовах зростаючого впливу криптовалютної сфери, забезпечуючи більші можливості для інвестування й торгівлі, а також сприяючи впровадженню новаторських технологій та підвищенню конкурентоспроможності на міжнародному рівні.

Ключові слова: криптовалюта, блокчейн, інвестиції, майнінг, зовнішньоекономічна діяльність, підприємницькі структури

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