DOI: https://doi.org/10.25140/2411-5215-2024-2(38)-103-114
UDC 334
JEL Classification M13

Anna Kramarenko
PhD (Economics), Associate Professor,
Associate Professor of the Department of management and administration
V. N. Karazin Kharkiv National University (Kharkiv, Ukraine)
Email: a.o.kramarenko@karazin.ua. **ORCID:** http://orcid.org/0000-0001-5987-1247.
Scopus Author ID: 57205117262

EDUCATIONAL "HUB" OF CRYPTOMARKETING: REASONS, BASICS AND ORGANIZATION

The study revealed a strong link between entrepreneurs ' awareness of cryptomarketing issues and the relevance of studying these issues. The less representatives of the business environment know about the opportunities and prospects for using blockchain and cryptocurrency technologies, the more interesting it is for them to study these issues. Additional factors that affect the degree of awareness of new business tools and the relevance of educational initiatives in the field of cryptomarketing are the type of business activity, the age of the entrepreneur, business experience and the size of the enterprise. When organizing an educational "hub", it is necessary to be guided by such principles as decentralized centralization, mixed format, short intensive, and an emphasis on practice.

Keywords: blockchain, innovation, decentralized finance, cryptocurrency, entrepreneurial education. Table: 6. References: 19.

Introduction. Digital transformation has made innovation one of the key global trends. Now when the Internet has become an integral part of digitalization, the digital revolution is transforming virtually all areas of life, including the economy, society, science, and education. It has also spawned innovative technologies such as blockchain. Interest in this new technology from companies, organizations and individuals is growing due to the benefits that it can bring: transparency (all participants have access to information); security; cost reduction by excluding intermediaries; the ability to make transactions using smart contracts; open innovations that promote new forms of relationships between different actors in society. [16; 18]. Many experts in the field of blockchain technology discuss the complex characteristic and unique structure of this technology, which prompted to consider new challenges associated with its implementation [6; 15].

From the user's point of view, the legislation and legitimacy of cryptotechnologies is the first axiomatic problem, followed by environmental variables such as social impact, technology design, and user experience. In addition, trust, risk, and level of knowledge should be considered [1; 3]. At the same time, the introduction of new technologies is very difficult and expensive. Therefore, this has become a serious problem for many organizations in terms of access to tangible or intangible resources. In connection with the above, the study of the possibilities of effective use of blockchain technologies and decentralized ways of business management has become a topic of increased interest both from the academic community and from entrepreneurs and managers.

Literature review. The internet plays a central role in data transmission, but blockchain plays a central role in value transmission, so trusting crypto tools can provide easy adaptations around the world [5; 12]. How to generate trust in cryptocurrency instruments remains an open question.

Blockchain and cryptocurrencies are innovative FinTech technologies that are rapidly invading the financial market and changing the power of the global economy. However, these technologies have not been adopted by consumers [13; 19]. There is a clear gap between the two that has not yet been taken into account and has been misunderstood on many platforms. Therefore, it is important to understand the behavioral aspects that determine the intentions of potential consumers regarding blockchain-based cryptocurrency transactions.

Case studies examine various causal combinations of technological, social, economic, cultural, and political factors that are associated with high levels of cryptocurrency adoption and DeFi [7; 14]. A potentially significant question for research is the role and degree of influence of various determinants on involvement in the use of crypto tools.

Blockchain is a technology that changes relationships between different actors in society, individuals, companies, and administrations by implementing concepts such as self-identification (SSI) and smart contracts [4; 8; 9]. The use of cryptocurrencies offers attractive business opportunities in the context of financial services and token-based business models [2; 11]. However, it is important to develop a value understanding of what motivates people to use cryptocurrencies to exchange values. The most common difficulties in using crypto tools, which were identified in the course of individual studies, are high volatility and lack of ease of use [10; 17]. With this in mind, ways to overcome the identified limitations and effectively promote cryptomarketing technologies in the interests of the main business entities remain an urgent issue that requires additional study.

Purpose of the study. The aim of the study is to study the business environment for awareness and the need for cryptomarketing tools, as well as to form the program framework of the corresponding educational “hub”, taking into account the results obtained.

Research methods. In order to understand how relevant the study of crypto marketing issues by business entities is, the research was conducted using a number of sociological, statistical, and general analytical methods.

Stages of research:

1) Conducting a survey among entrepreneurs on the feasibility and format of organizing an educational "hub" of cryptomarketing. The survey was conducted remotely in electronic format using the Google Form tool. 58 unique respondents completed electronic questionnaires. The survey questionnaire included 15 questions divided into 4 thematic blocks: information about the respondent, involvement in cryptomarketing problems, relevance of studying cryptomarketing

problems, and training format. For the convenience of potential respondents and to ensure the objectivity of the study, 14 questions out of 15 were closed in nature (respondents were given the opportunity to choose an answer option from the list).

In order to carry out quantitative assessment and conduct sociological measurements in the questions of the blocks "involvement in the problems of cryptomarketing" and "relevance of the study of cryptomarketing", a point scale from 0 to 5 was used, where 0 means complete non–compliance with the defined parameter, and 5 - full compliance.

2) Analysis of data obtained as a result of the survey based on a combination of statistical and mathematical methods: search for the average value, exponential smoothing, correlation analysis. For more information about the usage methods and analysis procedure, see the "Results" section.

3) Interpretation of the results of the analysis was carried out using the methods of formal logic: comparison, systematization, generalization. When interpreting and forming the conclusions of the study, the results of structural analysis of data from the “Training format” block were also taken into account.

Results. As part of the survey, respondents were asked to evaluate the relevant parameters on a point scale (from 0 to 5) to implement qualitative measurements of the level of awareness and the degree of relevance of cryptomarketing problems. At the same time, 0 – meant lack of awareness, and 5 - full awareness. The assessment was conducted in three key areas of knowledge in the field of crypto marketing: blockchain technologies, the cryptocurrency market, and decentralized finance. The results obtained during the survey are presented in the tables below.

Table 1

Results of the survey on the block “Involvement in the problems of cryptomarketing”

Level of awareness, in points	Regarding blockchain technology, % of respondents	Regarding the cryptocurrency market, % of respondents	Regarding DeFi management tools, % of respondents	Average level of awareness, % of respondents
0	33,40	22,80	26,30	27,16
1	21,10	21,50	22,30	21,63
2	12,50	18,00	20,40	16,62
3	13,20	15,80	15,60	14,82
4	11,50	11,40	5,30	8,86
5	8,30	10,50	10,10	9,58

Table 2

Results of the survey on the block "Relevance of studying cryptomarketing problems"

Degree of relevance, in points	Regarding blockchain technology, % of respondents	Regarding the cryptocurrency market, % of respondents	Regarding DeFi management tools, % of respondents	Average degree of relevance, % of respondents
0	12,10	11,20	14,60	12,55
1	11,20	10,80	5,30	8,62
2	13,50	5,40	15,60	10,44
3	15,80	15,90	16,90	16,19
4	21,10	26,50	21,10	22,77
5	26,30	30,20	26,50	27,61

The data presented in the tables were obtained on the basis of systematization of respondents' responses. The average level of awareness and the average degree of relevance are calculated using the geometric mean method. Average values are necessary for summarizing information on key thematic areas of cryptomarketing research. Further, in the course of analyzing the information obtained, the exponential smoothing method was used to identify patterns between the level of awareness of respondents and the need for educational initiatives in the field of cryptomarketing. As a result, the following data are obtained (see Table 3 and Table 4).

Table 3

Exponential data smoothing for the block "Involvement in cryptomarketing problems"

Level of awareness, in points	Regarding blockchain technology, % of respondents	Regarding the cryptocurrency market, % of respondents	Regarding DeFi management tools, % of respondents
0	-	-	-
1	33,40	22,80	26,30
2	24,79	21,89	23,50
3	16,19	19,17	21,33
4	14,10	16,81	17,32
5	12,28	13,02	8,91

Table 4

Exponential data smoothing for the block "Relevance of studying cryptomarketing problems"

Degree of relevance, in points	Regarding blockchain technology, % of respondents	Regarding the cryptocurrency market, % of respondents	Regarding DeFi management tools, % of respondents
0	-	-	-
1	12,10	11,20	14,60
2	11,47	10,92	8,09
3	12,89	7,06	13,35
4	14,93	13,25	15,83
5	19,25	22,52	19,52

At the next stage of the analysis, the data of exponential smoothing of involvement and relevance of cryptomarketing problems were compared with each other for correlation in accordance with the directions: blockchain technologies, the cryptocurrency market, and decentralized finance. Based on the data obtained as a result of exponential smoothing, indicators of correlation between awareness and relevance of studying these areas of cryptomarketing for business activities were calculated. The degree of correlation between the average values of awareness and relevance was also calculated. The calculation results are presented in Table 5.

Table 5

Value of the correlation coefficient between involvement and relevance of crypto marketing problems

Areas of analysis	Blockchain technologies	Cryptocurrency market	Tools for DeFi management	Average value
Correlation coefficient	-0,716	-0,777	-0,740	-0,789

The calculation results presented in Table 5 can be interpreted as follows. Correlation coefficients in all the studied areas have values greater than 0.5. This indicates a strong relationship between the awareness of entrepreneurs about cryptomarketing issues and the relevance of studying these issues. Negative values of the coefficients indicate the inverse nature of the relationship. In other words, the less representatives of the business environment know about the opportunities and prospects for using blockchain and cryptocurrency technologies, the more interesting it is for them to study these issues. Additional factors that affect the degree of awareness of new business tools and the relevance of educational initiatives in the field of cryptomarketing are the type of business activity, the age of the entrepreneur, business experience and the size of the enterprise. The influence of these factors was somewhat offset at the previous stage of analysis due to exponential smoothing.

However, the study will not be objective enough if you do not pay attention to the impact of respondents' characteristics.

1) Age of respondents. According to the survey results, the age structure of respondents was distributed as follows:

- up to 30 years (28,50 %);
- 31-40 years (21,20%);
- 41-50 years (18,80%);
- 51-60 years (17,50%);
- more than 60 years old (14,00%).

Half of the respondents belong to young people, that is, they are under the age of 40. At the same time, the higher the age of respondents, the lower their share in the total number of respondents. If you pay attention to the average indicators of involvement in the problems of cryptomarketing, they show a similar pattern – the higher the level of awareness, the fewer respondents meet this criterion. During the correlation test, the calculated coefficient indicator showed a value of 0.958. This means that the older the respondents, the less they participate in crypto marketing issues.

2) The business experience of the respondents is quite diverse:
- under 1 year (5,30%);
- 6-10 years (15,70%);
- 11-15 years (20,60%);
- 16-20 years (16,90%);
- more than 20 years (14,90%).

As part of the study, it was decided to measure the impact of business experience on the need to study cryptomarketing tools. The calculated value of the corresponding correlation indicator was -0.179, which indicates a low level of relationship between the studied parameters. Interpreting the results obtained, we note that regardless of the experience of entrepreneurial activity, cryptomarketing issues are equally likely to be relevant for entrepreneurs.

3) Type of activity. The respondents indicated various types of economic activities in their responses, which were systematized into the following groups:
- Production (18%);
- Trade (9%);
- Information and telecommunications technologies (33%);
- Finance and insurance (13%);
- Specialized services (27%).

Comparing the types of activities and the relevance of studying cryptomarketing issues in separate questionnaires allowed to conclude that educational "hubs" on this topic are most likely to be in demand in the field of Information Technology, Finance and Consulting. This pattern is due to the fact that blockchain and decentralized finance technologies represent innovations for these types of activities. To some extent, the spread of crypto Marketing Technologies creates new challenges for entrepreneurs who provide highly qualified expert services. Leveling these threats is directly related to immersion in the world of new technologies and adaptation of the studied innovations.

4) Size of the enterprise. According to the questionnaires, respondents represent the following types of entrepreneurship (by the size of the enterprise):
- microenterprise (up to 10 people) (68.5%);
- small enterprise (11-50 people) (20.8%);
- medium-sized enterprise (51-250 people) (10.2%);
- large enterprise (more than 250 people) (0.5%).

Most of the surveyed entrepreneurs are representatives of small businesses. At the same time, a closer look at the individual responses of respondents suggests that it is for small enterprises the introduction of crypto innovations is a way to maintain efficiency, survive in the market and expand the prospects for scaling. That is why the highest ratings of the relevance of studying crypto marketing issues were received from microenterprise owners.

Summing up the results of the analysis of the survey results of the first two blocks, we can note the following key points:

1) The main factor determining the relevance of studying crypto marketing issues by business representatives is the degree of involvement and awareness of blockchain technologies, cryptocurrencies and decentralized finance. The less engagement, the greater the interest in raising awareness.

2) Additional factors that determine the need to create an educational "hub" of cryptomarketing are the age of respondents, the type and experience of entrepreneurial activity, as well as the size of the enterprise. According to the results of a study of individual responses and trends, the older the respondents, the lower the awareness of cryptotechnologies, since these technologies are relatively new. Correlation analysis has shown that business experience does not significantly affect the degree of relevance of studying cryptomarketing issues. As for the types of economic activity and the size of enterprises, the potentially most interesting educational "hub" will be for small enterprises in the field of information technology, expert services, finance and insurance.

Due to the revealed high relevance of studying crypto marketing technologies, the answers of the third block of the survey concerning the most optimal training format were analyzed. The systematization of respondents' responses is as follows:

1) Priority models of professional development:

- decentralized (independent search for necessary information, self-education, non-formal education) (52.6%);
- centralized (educational programs and courses in formal education institutions: universities, institutes, academies) (47.4%).

2) Priority forms of professional training:

- online (57.9%);
- offline (42.1%).

3) Comfortable duration of professional training:

- short-term intensive course (68.4%);
- an average long course with a uniform distribution of hours (31.6%).

4) Priority structure of professional training:

- more practical tasks in the classroom (57.9%);
- higher informative saturation of classes (26.3%);
- mostly independent work (15.8%).

Summarizing the answers received, we can conclude that when organizing an educational "hub", it is necessary to follow the principles:

- "Decentralized centralization". Taking into account the fact that the respondents' preferences regarding the means of studying innovation are almost evenly distributed between centralized and decentralized areas, it is recommended to apply a compromise approach. Create non-formal education projects (for example, a certification course) within formal institutions (universities, academies).
- "Mixed format". Respondents' priorities regarding the form of attendance at classes were also divided almost evenly. In this regard, it is proposed to organize mixed training on the basis of the concentration center (part of the audience is present in person, and part is connected using video communication tools).

- "Short intensive". Since the overwhelming majority of respondents prefer short terms of familiarization with the course materials, the recommended maximum duration of the cryptomarketing course is 4 weeks.

- "Focus on practice". The majority of respondents are mainly focused on the practical component of the course and studying the possibilities of application in professional activities. In this regard, it is recommended to optimally fill the course with real cases, examples and practical tasks.

Taking into account the respondents' involvement in the issues of cryptomarketing, the need for information according to the types of activities, as well as the validity of a systematic approach to the study of innovations, an indicative thematic plan of the non-formal education course "Cryptomarketing: how it works" was developed (see Table 6).

Table 6

Thematic plan of the experimental non-formal education course "Cryptomarketing: how it works"

THEME	**KEY ISSUES**
1	2
CRYPTOMARKETING: HOW IT WORKS (4 ECTS = 120 hours)	
Theme 1. Blockchain technology as a basis for crypto marketing (20 hours)	1. Introduction to Web 3. 2. Key concepts of blockchain. 3. Advantages and disadvantages of blockchain technology. 4. Consensus algorithm. 5. Use cases for the blockchain.
Theme 2. Basic concepts of crypto marketing (10 hours)	1. The essence of cryptocurrencies. 2. Features of investing in cryptocurrency.
Theme 3. Introduction to crypto marketing activities (10 hours)	1. Crypto marketing with investment. 2. Crypto marketing without investment.
Theme 4. Non-fungible tokens (NFT) (10 hours)	1. The essence of NFTs and how they work. 2. Use Cases for NFT. 3. Creating NFTs and their cost.
Theme 5. ICO, IDO, IEO: opportunities and risks (10 hours)	1. Initial Coin Offering (ICO). 2. Initial Decentralized Offering (IDO). 3. Initial Exchange Offer (IEO).
Theme 6. Decentralized finance (DeFi) (10 hours)	1. Key features of DeFi. 2. Review the most popular DeFi.
Theme 7. Decentralized Autonomous Organizations (DAO), launchpad, dapp (10 hours)	1. The essence of the DAO. 2. Management and DAO membership. 3. What is a launcher? 4. Decentralized applications (dapp).
Theme 8. How to start trading cryptocurrency (10 hours)	1. Self-education and risk management. 2. Trading on the stock exchange. Technical and fundamental analysis. 3. Expert tips for beginners.

End of the table 6

1	2
Theme 9. First steps in working with crypto tools on the example of the platform Ethereum (10 hours)	1. Crypto wallet: essence and varieties. 2. How to use the wallet. 3. How to get ETH.
Theme 10. How to transfer tokens to Level 2 (for example Ethereum) (10 hours)	1. Blockchain bridges. 2. Algorithm for moving to Level 2.
Theme 11. Security issues (10 hours)	1. Basic fraudulent schemes. 2. How to identify scammers when investing in cryptocurrency. 3. Fraudulent tokens. 4. How do I protect myself?

Since the course is an element of non-formal education, it provides for a departure from the classical academic experience of conducting classes in the form of lectures or seminars. Classes of the course will be implemented on the basis of a mixed approach. The presentation of theoretical materials is closely intertwined with practical examples and cases for both group and individual analysis. Within the framework of short-term intensive training, this model of teaching contributes to the most effective involvement in innovative technologies. The organization of such an educational "hub" as an experiment within the University increases the probability of successful implementation of such practices, taking into account the existence of a basic reputational "Trust Index" in the academic community.

Conclusions. Based on the conducted research using survey methods, statistical, mathematical and qualitative analysis, the following results were obtained:

1) The degree of involvement in crypto marketing issues is a key factor in the relevance of studying this topic. The less awareness there is about the essence of blockchain and cryptocurrency technology, the more entrepreneurs are interested in studying these innovations.

2) The level of need to study crypto technologies and the possibilities of their application in various areas of entrepreneurship is also determined by the size of the enterprise and the type of economic activity. Potentially greater demand for the services of the educational "hub" will be from small businesses in the field of Information Technology, Consulting and Finance.

3) The organization of an educational "hub" provides for the use of an academic framework based on the approach of non-formal education (certification courses). At the same time, it is recommended to promote short-term intensive courses filled with broad practical content.

References

1. Albayati, H., Kim, S. K., & Rho, J.J. (2020). Accepting financial transactions using blockchain technology and cryptocurrency: A customer perspective approach. *Technology in Society*, 62. https://doi.org/10.1016/j.techsoc.2020.101320.

2. Antsipava, D., Strycharz, J., van Reijmersdal, E. A., & van Noort. G. (2024). What drives blockchain technology adoption in the online advertising ecosystem? An interview study into stakeholders' perspectives. *Journal of Business Research*, 171. https://doi.org/10.1016/j.jbusres.2023.114381.

3. Campino, J., & Yang, S. (2024). Decoding the cryptocurrency user: An analysis of demographics and sentiments. *Heliyon*, 10(5). https://doi.org/10.1016/j.heliyon.2024.e26671.

4. Enayati, M., Arlikatti, S., & Ramesh, M.V. (2024). A qualitative analysis of rural fishermen: Potential for blockchain-enabled framework for livelihood sustainability. *Heliyon*, 10(2). https://doi.org/10.1016/j.heliyon.2024.e24358.

5. Ertz, M., & Boily, E. (2019). The rise of the digital economy: Thoughts on blockchain technology and cryptocurrencies for the collaborative economy. *International Journal of Innovation Studies*, 3(4), p.84-93. https://doi.org/10.1016/j.ijis.2019.12.002.

6. Far, S. B., Rad, A. I., & Asaar, M. R. (2023). Blockchain and its derived technologies shape the future generation of digital businesses: a focus on decentralized finance and the Metaverse. *Data Science and Management*, 6(3), p.183-197. https://doi.org/10.1016/j.dsm.2023.06.002.

7. García-Monleón, F., Erdmann, A., & Arilla, R. (2023). A value-based approach to the adoption of cryptocurrencies. *Journal of Innovation & Knowledge*, 8(2). https://doi.org/10.1016/j.jik.2023.100342.

8. Gottlieb, M., Deutsch, C., Hoops, F., Pongratz, H., & Krcmar, H. (2024). Expedition to the Blockchain Application Potential for Higher Education Institutions. *Blockchain: Research and Applications*. https://doi.org/10.1016/j.bcra.2024.100203.

9. Jutel, O. (2022). Blockchain humanitarianism and crypto-colonialism. *Patterns*, № 3(1). https://doi.org/10.1016/j.patter.2021.100422.

10. Koshiry, A. E., Eliwa, E., El-Hafeez, T. A., & Shams, M. Y. (2023). Unlocking the power of blockchain in education: An overview of innovations and outcomes. *Blockchain: Research and Applications*, 4(4). https://doi.org/10.1016/j.bcra.2023.100165.

11. Lincopinis, D. R., & Llantos, O. E. (2024). The current research status of solving blockchain scalability issue. *Procedia Computer Science*, 239, p.314-321. https://doi.org/10.1016/j.procs.2024.06.177.

12. Mulligan, C., Morsfield, S., & Cheikosman, E. (2024). Blockchain for sustainability: A systematic literature review for policy impact. *Telecommunications Policy*, 48(2). https://doi.org/10.1016/j.telpol.2023.102676.

13. Nguyen, L. T. M., & Nguyen, P. T. (2024). Determinants of cryptocurrency and decentralized finance adoption - A configurational exploration. *Technological Forecasting and Social Change*, 201. https://doi.org/10.1016/j.techfore.2024.123244.

14. Peláez-Repiso, A., Sánchez-Núñez, P., & Calvente, Y. G. (2021). Tax Regulation on Blockchain and Cryptocurrency: The Implications for Open Innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(1), 98. https://doi.org/10.3390/joitmc7010098.

15. Sadiq, M., Aysan, A. F., & Kayani, U. N. (2023). Digital currency and blockchain security in accelerating financial stability: A mediating role of credit supply. *Borsa Istanbul Revie*w, 23(6), p.1251-1262. https://doi.org/10.1016/j.bir.2023.09.009.

16. Shrimali, B., & Patel, H. B. (2022). Blockchain state-of-the-art: architecture, use cases, consensus, challenges and opportunities. *Journal of King Saud University - Computer and Information Sciences*, 34(9), 6793-6807. https://doi.org/10.1016/j.jksuci.2021.08.005.

17. Tripathi, G., Ahad, M. A., & Casalino, G. (2023). A comprehensive review of blockchain technology: Underlying principles and historical background with future challenges. *Decision Analytics Journal*, 9. https://doi.org/10.1016/j.dajour.2023.100344.

18. Zhaisanova, D., & Mansurova, M. (2024). Blockchain concept for the educational purposes: bibliometric analysis and conceptual structure. *Procedia Computer Science*, 231, 753-758. https://doi.org/10.1016/j.procs.2023.12.142.

19. Zhang, J., Cai, K., & Wen, J. (2024). A survey of deep learning applications in cryptocurrency. *iScience*, 27(1). https://doi.org/10.1016/j.isci.2023.108509.

Список використаних джерел

1. Albayati H. Accepting financial transactions using blockchain technology and cryptocurrency: A customer perspective approach / H. Albayati, S. K. Kim, J.J. Rho // Technology in Society. – 2020. – № 62. DOI: https://doi.org/10.1016/j.techsoc.2020.101320.

2. What drives blockchain technology adoption in the online advertising ecosystem? An interview study into stakeholders' perspectives / D. Antsipava, J. Strycharz, van Reijmersdal E. A., van Noort G. // Journal of Business Research. – 2024. – № 171. DOI: https://doi.org/10.1016/j.jbusres.2023.114381.

3. Campino J. Decoding the cryptocurrency user: An analysis of demographics and sentiments / J. Campino, S. Yang // Heliyon. – 2024. – № 10(5). DOI: https://doi.org/10.1016/j.heliyon.2024.e26671.

4. Enayati M. A qualitative analysis of rural fishermen: Potential for blockchain-enabled framework for livelihood sustainability / M. Enayati, S. Arlikatti, M.V. Ramesh // Heliyon. – 2024. – № 10(2). DOI: https://doi.org/10.1016/j.heliyon.2024.e24358.

5. Ertz M. The rise of the digital economy: Thoughts on blockchain technology and cryptocurrencies for the collaborative economy / M. Ertz, E. Boily // International Journal of Innovation Studies. – 2019. – № 3(4). – Pp. 84-93. DOI: https://doi.org/10.1016/j.ijis.2019.12.002.

6. Far S. B. Blockchain and its derived technologies shape the future generation of digital businesses: a focus on decentralized finance and the Metaverse / S. B. Far, A. I. Rad, M. R. Asaar // Data Science and Management. – 2023. – № 6(3). – Pp. 183-197. DOI: https://doi.org/10.1016/j.dsm.2023.06.002.

7. García-Monleón F., Erdmann A., Arilla R. A value-based approach to the adoption of cryptocurrencies / García-Monleón F., Erdmann A., Arilla R. // Journal of Innovation & Knowledge. – 2023. – № 8(2). DOI: https://doi.org/10.1016/j.jik.2023.100342.

8. Expedition to the Blockchain Application Potential for Higher Education Institutions / Gottlieb M., Deutsch C., Hoops F., Pongratz H., Krcmar H. // Blockchain: Research and Applications. – 2024. DOI: https://doi.org/10.1016/j.bcra.2024.100203.

9. Jutel O. Blockchain humanitarianism and crypto-colonialism / O. Jutel // Patterns. – 2022. – № 3(1). DOI: https://doi.org/10.1016/j.patter.2021.100422.

10. Unlocking the power of blockchain in education: An overview of innovations and outcomes / A. E. Koshiry, E. Eliwa, T. A. El-Hafeez, M. Y. Shams // Blockchain: Research and Applications. – 2023. – № 4(4). DOI: https://doi.org/10.1016/j.bcra.2023.100165.

11. Lincopinis D. R. The current research status of solving blockchain scalability issue / D. R. Lincopinis, O. E. Llantos // Procedia Computer Science. – 2024. – № 239. – Pp. 314-321. DOI: https://doi.org/10.1016/j.procs.2024.06.177.

12. Mulligan C. Blockchain for sustainability: A systematic literature review for policy impact / C. Mulligan, S. Morsfield, E. Cheikosman // Telecommunications Policy. – 2024. – № 48(2). DOI: https://doi.org/10.1016/j.telpol.2023.102676.

13. Nguyen L. T. M. Determinants of cryptocurrency and decentralized finance adoption - A configurational exploration / L. T. M. Nguyen, P. T. Nguyen // Technological Forecasting and Social Change. – 2024. – № 201. DOI: https://doi.org/10.1016/j.techfore.2024.123244.

14. Peláez-Repiso A. Tax Regulation on Blockchain and Cryptocurrency: The Implications for Open Innovation / A. Peláez-Repiso, P. Sánchez-Núñez, Y. G. Calvente // Journal of Open Innovation: Technology, Market, and Complexity. – 2021. – № 7(1). – P. 98. DOI: https://doi.org/10.3390/joitmc7010098.

15. Sadiq M. Digital currency and blockchain security in accelerating financial stability: A mediating role of credit supply / M. Sadiq, A. F. Aysan, U. N. Kayani // Borsa Istanbul Review. – 2023. – № 23(6). – Pp. 1251-1262. DOI: https://doi.org/10.1016/j.bir.2023.09.009.

16. Shrimali B. Blockchain state-of-the-art: architecture, use cases, consensus, challenges and opportunities / B. Shrimali, H. B Patel. // Journal of King Saud University - Computer and Information Sciences. – 2022. – № 34(9). – Pp. 6793-6807. DOI: https://doi.org/10.1016/j.jksuci.2021.08.005.

17. Tripathi G. A comprehensive review of blockchain technology: Underlying principles and historical background with future challenges / G. Tripathi, M. A. Ahad, G Casalino. // Decision Analytics Journal. – 2023. – № 9. DOI: https://doi.org/10.1016/j.dajour.2023.100344.

18. Zhaisanova D. Blockchain concept for the educational purposes: bibliometric analysis and conceptual structure / D. Zhaisanova, M. Mansurova // Procedia Computer Science. – 2024. – № 231. – Pp. 753-758. DOI: https://doi.org/10.1016/j.procs.2023.12.142.

19. Zhang J. A survey of deep learning applications in cryptocurrency / D. Zhaisanova, M. Mansurova // iScience. – 2024. – № 27(1). DOI: https://doi.org/10.1016/j.isci.2023.108509.

Отримано 29.05.2024

УДК 334

Анна Олександрівна Крамаренко

кандидат економічних наук, доцент, доцент кафедри управління та адміністрування
Харківський національний університет імені В. Н. Каразіна (Харків, Україна)
Email: a.o.kramarenko@karazin.ua. **ORCID:** http://orcid.org/0000-0001-5987-1247.
Scopus Author ID: 57205117262

ОСВІТНІЙ «ХАБ» КРИПТОМАРКЕТИНГУ: ПРИЧИНИ, ОСНОВИ ТА ОРГАНІЗАЦІЯ

Цифрова трансформація зробила інноваційність однією з ключових глобальних тенденцій. З погляду користувача, основними проблемами впровадження криптотехнологій є дизайн технології, досвід користувачів, довіра, ризик та рівень знань. У процесі дослідження було виявлено сильний зв'язок між обізнаністю підприємців щодо питань криптомаркетингу та актуальністю вивчення даних питань. Чим менше представники бізнес-середовища знають про можливості й перспективи використання технологій блокчейн і криптовалюти, тим більш цікавим для них є вивчення цих питань. Додатковими факторами, які впливають на ступінь інформованості про нові бізнес-інструменти та актуальність освітніх ініціатив у сфері криптомаркетингу, є вид підприємницької діяльності, вік підприємця, досвід ведення бізнесу та розмір підприємства. Чим старші респонденти, тим менше вони беруть участь у питаннях криптомаркетингу. Освітні хаби з цієї тематики найімовірніше будуть затребувані у сфері інформаційних технологій, фінансів і консалтингу. При цьому саме для невеликих підприємств впровадження криптоінновацій є способом підтримки ефективності, виживання на ринку і розширення перспектив масштабування. При організації освітнього «хаба» необхідно керуватися такими принципами як децентралізована централізація, змішаний формат, короткий інтенсив, акцент на практику. Оскільки передбачуваний освітній курс являє собою елемент неформальної освіти, то передбачається відхід від класичного академічного досвіду проведення занять у вигляді лекцій або семінарів. Заняття курсу будуть реалізовуватися на основі змішаного підходу. Виклад теоретичних матеріалів тісно переплітається з практичними прикладами і кейсами як для групового, так і для індивідуального розбору. В рамках короткострокового інтенсиву дана модель викладання сприяє найбільш ефективному залученню в інноваційні технології.

Ключові слова: *блокчейн; інновації; децентралізовані фінанси; криптовалюта; підприємницька освіта.*

Табл.: 6. Бібл.: 19.

Kramarenko, A. (2024). Educational “hub” of cryptomarketing: reasons, basics and organization. *Problems and prospects of economics and management*, (2(38)), 103-114.