

ANALYSIS OF THE CRYPTOGRAPHIC CURRENCY SYSTEM AND ITS RELATION WITH COMPUTER SCIENCE

Abstract

In order to utilize digital crypto currency one needs to use different platforms. Moreover, it has been observed that in the case of digital currency, the individual only needs to access different digital platforms that are helpful for the individual. Adding the technology which is based on encryption helps to modify the usage of crypto currency in such a way that it increases the other application of digital currency.

Keywords: Cryptographic currency, currency system, computer science, technology platform

Authors

Gioia Arnone

Department of Managerial and Quantitative Studies (DISAQ)
University of Napoli "Parthenope",
Naples - Italy

Department of Private and Economic Law
Vrije Universiteit Brussel
Bruxelles – Belgium
gioia.arnone@vub.be

Dr. Shiwani Arora Thakur

Associate Professor
Department of Management
Hindu Institute of Management
Sonapat, India.
shiwani.him@gmail.com

I. INTRODUCTION

In other words, crypto currency is also known as a digital currency [1]. This is because with the help of accessing digital platforms the security level of the currency is getting increasing. By developing proper digital security one can be able to protect the way that is used in order to for using the currency in different aspects. Moreover, it has been observed that with the help of digital currency, one can be able to restrict the usage of digital crypto currency as well [2]. The usage of digital platforms allows the user to limit the usage of crypto currency per month.

II. OBJECTIVES

The objective of the study is based on the main purpose of developing the study. With the help of objectives, one can be able to define the actual motive situated behind the conduction of this study [3]. Therefore the objectives are,

- To describe the cryptographic currencies in the broad aspect
- To find out all the subcategories of cryptographic currencies
- To estimate the usage of digital currency in different aspects such as both professional and personal.
- To estimate the factors that are involved in influencing the application process of the computer science
- To detect the relationship that is developed between the cryptographic currencies and the computer science

III. METHODOLOGY

The methodology of the study is based on the different steps that help to extract the information from different sources. It has been observed that with the help of extracting the data, the rest of the steps of conducting a successful project can be performed [4]. Moreover, it has been observed that in this study all the data extracted from different sources are mainly based on digital currency. Along with this different data on the basis of computer science and its contribution to evaluating the usage of computer science are also included. These data help to develop a link between the application of computer science and the usage of the cryptographic currency [5]. Different online sources have mainly utilized In order to collect the topic's relevant information and data.

IV. CRYPTOGRAPHIC CURRENCIES

The term crypto currency is involved utilizing the currency by accessing different platforms that are available in digital media. In order to use those platforms and make payments by utilizing those platforms the users need to access different kinds of encryption algorithms [6]. The incorporation of encryption algorithms helps the user by enhancing the effectiveness of the functions of the crypto currency. Before the addition of the technology which supports the encryption, the user had the accessibility to use digital currency as a payment options. The other usage of digital currency refers to the development of an accounting system by utilizing different virtual platforms [7].

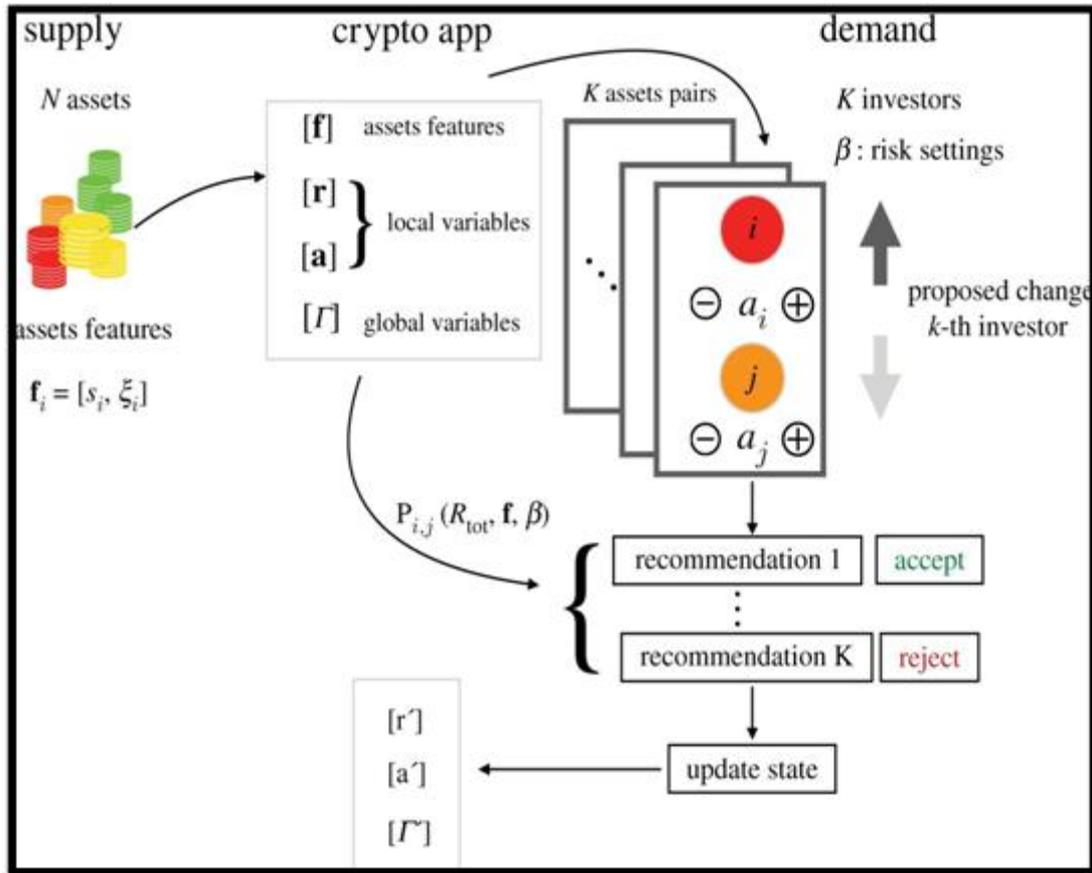


Figure 1: Cryptographic currencies
(Source: 2)

V. CATEGORISATION OF CRYPTOGRAPHIC CURRENCIES

Crypto currency can be devoted into different categories and each of the categories is involved in performing different actions of giving payment. It has been observed that there are four different crypto currency utilities, payment, security, and stable coins [8]. These four are the most used crypto currency. Apart from these four, there are other crypto currencies also available. Such as DeFi tokens, asset-backed Tokens, and NFTs. Each of the above-mentioned crypto currencies is involved in performing specific digital payment-related jobs. The utility crypto token is used in order to develop a block chain facility for the user. Along with this, it has been observed that the user can easily use the utility crypto token in terms of a medium for exchanging the other crypto value. As the name suggests the payment crypto currency token are used in order to develop different payments by accessing digital media. After that, it has been observed that with the help of a security token, the user can be able to develop an ultimate level of security while giving payment to different media [9].

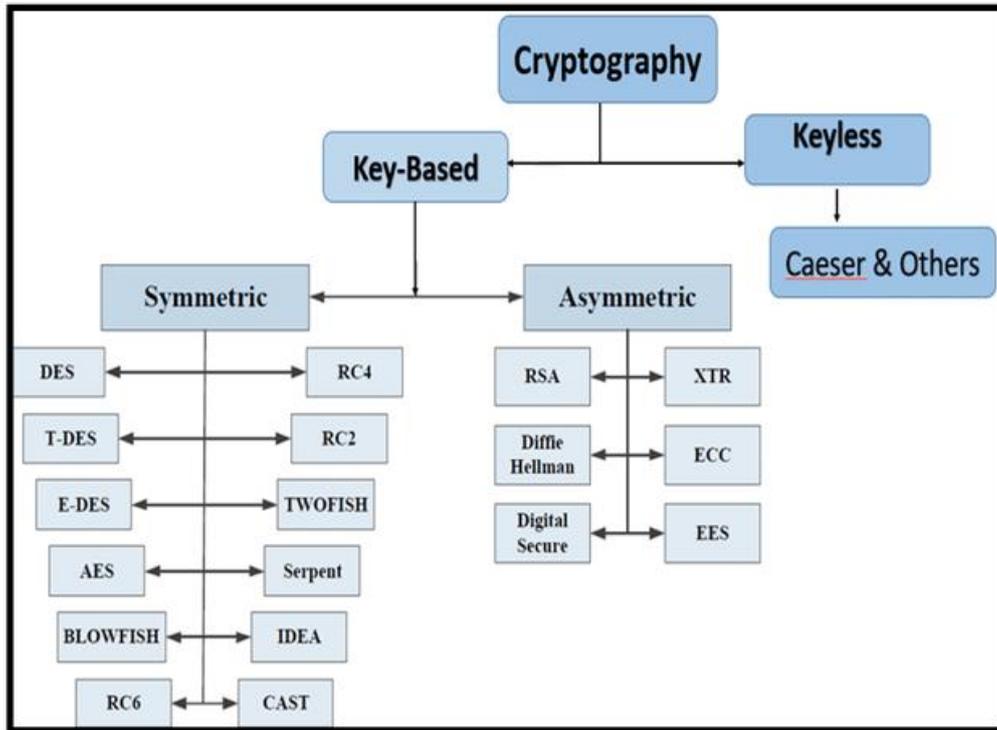


Figure 2: Different kinds of cryptographic currencies (Source: 2)

Moreover, it has been observed that the inclusion of digital encryption technology is involved in developing a transaction system that allows the user to develop an end-to-end encrypted model. The end-to-end encryption system is involved in developing a high-level security system.



Figure 3: Graph showing the denominations of cryptographic currencies (Source: 2)

VI. ADVANTAGES RELATED WITH APPLICATION OF COMPUTER SCIENCE

The application of computer science is involved in developing different technology. It has been observed that with the help of those techniques, the user finds it easier to perform a different task. It has been observed that the application of computer science is also helpful in terms of lowering the manual approaches to performing any task. Along with this, it has been observed that with the help of computer science, the presence of the number of defects is also reduced as well [10].

VII. PROBLEM STATEMENT

This approach helps the user to reduce the number of defects and faults while performing any kind of task with the help of computer science. Moreover, it can be observed that the application of computer science is also helpful in lowering the time required in order to perform a job [11]. In addition to that computer science is involved in giving an easier way to users in terms of performing any kind of job by putting in the minimum amount of effort.

VIII. CONCLUSION

Therefore it can be stated that with the help of computer science, one can be able to perform any kind of job without any errors and put a minimal amount of effort, and also involving less amount of time as well. Hence it is proven that the addition of computer science in the process of performing any kind of tasks is helpful for reducing the manual work load and enhancing the standard of ultimate result of the research.

Theme	Description
1. Boost students' interest	Students enhance their learning by motivating and getting their interest by using computer applications in teaching Science.
2. Information accessibility	Students easily get the information by the use of internet.
3. Easy IM preparation	Students appreciate more on IMs just because it is available every day and can easily make through the use of computer software.
4. Effectiveness in enhancing conceptual understanding	Students enrich the conceptual understanding and it is effective in teaching Science education.
5. Portable usage of computer applications	Students use computer applications at anytime and anywhere.

Figure 4: Advantages related with application of computer science
(Source: 7)

REFERENCES

- [1] Akhtar, F., Li, J. P., Heyat, M. B. B., Quadri, S. L., Ahmed, S. S., Xiao, Y. U. N., & Haq, A. U. (2019, December). Potential of blockchain technology in digital currency: a review. In *2019 16th International Computer Conference on Wavelet Active Media Technology and Information Processing* (pp. 85-91). IEEE. Available at: <https://ieeexplore.ieee.org/abstract/document/8742375/>.
- [2] Bartoletti, M., Lande, S., Loddo, A., Pompianu, L., & Serusi, S. (2021). Cryptocurrency scams: analysis and perspectives. *Ieee Access*, 9, 1483533-148373. Available at: <https://ieeexplore.ieee.org/abstract/document/9456350/>
- [3] Ferdiansyah, F., Othman, S. H., Radzi, R. Z. R. M., Stiawan, D., Sazaki, Y., & Ependi, U. (2019, October). A lstm-method for bitcoin price prediction: A case study yahoo finance stock market. In *2019 International Conference on Electrical Engineering and Computer Science (ICECOS)* (pp. 206-210). IEEE. Available at: <https://ieeexplore.ieee.org/iel7/6287639/9312710/09558869.pdf>
- [4] Kaur, M., Khan, M. Z., Gupta, S., Noorwali, A., Chakraborty, C., & Pani, S. K. (2021). MBSP: Performance analysis of large scale mainstream blockchain consensus protocols. *IEEE Access*, 9, 80931-80944. Available at: <https://ieeexplore.ieee.org/abstract/document/9567686/>
- [5] Lv, Z., Qiao, L., Hossain, M. S., & Choi, B. J. (2021). Analysis of using blockchain to protect the privacy of drone big data. *IEEE network*, 35(1), 44-49. Available at: <https://ieeexplore.ieee.org/abstract/document/9067546/>
- [6] Pernice, I. G., Henningsen, S., Proskalovich, R., Florian, M., Elendner, H., & Scheuermann, B. (2019, June). Monetary stabilization in cryptocurrencies– design approaches and open questions. In *2019 crypto valley conference on blockchain technology (cvcbt)* (pp. 47-59). IEEE. Available at: <https://ieeexplore.ieee.org/abstract/document/8941045/>
- [7] Rizwan, M., Narejo, S., & Javed, M. (2019, December). Bitcoin price prediction using deep learning algorithm. In *2019 13th International Conference on Mathematics, Actuarial Science, Computer Science and Statistics (MACS)* (pp. 1-7). IEEE. Available at: <https://ieeexplore.ieee.org/abstract/document/9055730/>
- [8] Şaşmaz, E., & Tek, F. B. (2021, September). Tweet sentiment analysis for cryptocurrencies. In *2021 6th International Conference on Computer Science and Engineering (UBMK)* (pp. 613-618). IEEE. Available at: <https://ieeexplore.ieee.org/abstract/document/8929439/>
- [9] Sun, Y., Xiong, H., Yiu, S. M., & Lam, K. Y. (2019, June). Bitvis: An interactive visualization system for bitcoin accounts analysis. In *2019 Crypto Valley conference on blockchain technology(CVCBT)* (pp. 21-25). IEEE. Available at: <https://ieeexplore.ieee.org/abstract/document/9354924/>
- [10] Tanwar, S., Patel, N. P., Patel, S. N., Patel, J. R., Sharma, G., & Davidson, I. E. (2021). Deep learning-based cryptocurrency price prediction scheme with inter-dependent relations. *IEEE Access*, 9, 138633-138646. Available at: <https://ieeexplore.ieee.org/abstract/document/8787562/>
- [11] Tiwari, R. G., Agarwal, A. K., Kaushal, R. K., & Kumar, N. (2021, October). Prophetic analysis of bitcoin price using machine learning approaches. In *2021 6th International Conference on Signal Processing, Computing and Control (ISPCC)* (pp. 428-432). IEEE. Available at: <https://ieeexplore.ieee.org/abstract/document/8984499/>
- [12]