

Adoption factors of digital currencies in Ilocos Norte

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Abstract

The study focuses on the factors that influence digital currency usage in Ilocos Norte, Philippines. The study's participants were Ilocos Norte locals who were chosen through a quota sampling technique. The questions were distributed to respondents via Google Forms by the researchers. According to the study findings, early adulthood is more active in engaging in the use of digital currency, females were the majority dwarfing males, single individual is the most prevalent as they have more time to prioritize themselves than married people, and majority of them have a monthly income of less than 20,000. In terms of digital currency adoption factors, respondents find it easy to access and display digital currency; in terms of perceived usefulness, respondents can transact completely with no problem and no harm from using digital currencies, this enhances speed and allows for faster money or fund transfers. In terms of transaction processing, they find it simple to send and receive payments from anyone in the world. In terms of security and control, they discovered that using digital currency is secure and efficient for them, they discovered that using digital money can meet their needs and desires. Among the factors influencing the adoption of digital currencies in Ilocos Norte, perceived utility has the highest weighted mean overall, indicating that the majority of respondents thought cryptocurrency was particularly beneficial to them.

Keywords: digital currency, cryptocurrency, blockchain technology, bitcoin

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Introduction

The rapid technological advancements have facilitated the development of digital currencies, which are controlled and regulated by the digital communities (Carrick, 2016). Bitcoin, a well-known cryptocurrency, has gained a great deal of media, governmental, and scholarly attention for the past few years. The idea of Bitcoin, as an alternative currency, was presented by Satoshi Nakamoto in 2008, which allows to send/receive payments immediately without the involvement of governments, financial institutions, or any other third party (Nakamoto, 2008). Bitcoin circulates globally without any physical form or government support, but there are some digital rules and regulations to operate (Segendorf, 2014). The composition form of Bitcoin is no more than bits, totally in intangible form (Van Alstyne, 2014). Bitcoin has caught wide attention due to high-profit opportunities, dramatic changes in price, transparency, and several other prospective benefits of the technology it provides (Dastgir et al., 2019). The traditional modes of the financial systems, however, feel reluctant to acknowledge Bitcoin because it is not owned, regulated, or supported by most governments (Hern, 2013). Hence, this research aims to shed light on what factors affect the user's perceived ease of use, perceived usefulness, transaction processing, security and control, and usage intention of digital currencies in Ilocos Norte, Philippines.

Methodology

This research is focused on the adoption factors of digital currencies in Ilocos Norte. Specifically, this study seeks to assess the perceived ease of use, perceived usefulness, transaction processing, security and control, and usage intention. The study utilized a quantitative study as its design and quota sampling as its sampling technique. The survey questionnaires were delivered using Google Forms which was distributed to the 200 respondents particularly cryptocurrency users in Ilocos Norte. The statistical treatment of data is to be considered by the specific problem identified and it was done separately to obtain appropriate answers to each question. Frequencies, percentages, and weighted means were employed to explain whether the adoption factors were applicable. The number of respondents who ticked off a given item determined the frequency of each response.

Findings

In terms of perceived ease of use, the result shows that users found it is easy to understand or use the cryptocurrency but they have the fear of loss when thinking about cryptocurrency usage; cryptocurrency gives convenience to users as they can freely and effortlessly operate.

In terms of perceived usefulness, the result shows that the use of cryptocurrency enabled users to complete transactions or interactions without harassment and they use valuable cryptocurrency technology as an alternative source of currency. In addition, users felt that cryptocurrency payment is cheaper than other methods of payment.

In terms of transaction processing, respondents have the ability to transfer money instantly all around the world, which implies that using cryptocurrency can make them transfer even a very small fraction of the amount. They also felt that the usage of cryptocurrency is more desirable than money because of the anonymity of its users.

In terms of security and control, using cryptocurrency empowered them with control of their money and other private keys stored in their computer/laptop/mobile phone, etc. are safe. Similarly, they can transfer money securely and it is more secure as compared with other modes of transaction, and cryptocurrency wallets are safe and secure from hacker attacks.

In terms of usage intention, the use of cryptocurrency is very helpful in timely fulfilling their obligations and as an alternative source of currency to buy or sell products in the future. However, they prefer to use the cryptocurrency for game purposes.

Conclusion

The highest weighted mean among factors influencing cryptocurrency adoption in llocos Norte is the perceived usefulness, which implies that most of the respondents found cryptocurrency very useful to them. Hence, the use of digital currency must become a highvalue-added proposition for customers or users. The more value-added offered by digital currency, the more likely it is to be used. However, users need to make effort to learn and operate the use of digital currency. It is significant, as any innovation in a digital currency's usability will thus positively influence the intention to use it. It is mandatory that new users must also be familiar with the fundamental facts because failing to do so can lead to several problems or risks that they may not be aware of at the time.

References

- Arias-Oliva, M., Pelegrín-Borondo, J., & Matías-Clavero, G. (2019). Variables Influencing Cryptocurrency Use: A Technology Acceptance Model in Spain. *Frontiers in Psychology*, 10. <u>https://doi.org/10.3389/fpsyg.2019.00475</u>
- Baker-Eveleth L., Eveleth D. M., O'Neill M., Stone R. W. (2006). Enabling laptop exams using secure software: Applying the Technology Acceptance Model. *Journal of Information Systems Education*, 17(4), 413–420.
- Berentsen, A. (2019). Aleksander Berentsen recommends "Bitcoin: A peer-to-peer electronic cash system" by Satoshi Nakamoto. 21st Century Economics, 7-8. <u>https://doi.org/10.1007/978-3-030-17740-9_3</u>
- Bohannon, J. (2016). The bitcoin busts. *Science*, *351*(6278), 1144-1146. <u>https://doi.org/10.1126/science.351.6278.1144</u>
- Darlington, J.K. (2014). The future of bitcoin: Mapping the global adoption of world's largest cryptocurrency through benefits analysis. *Chancellor's Honors Program Projects*. <u>https://trace.tennessee.edu/utk_chanhonoproj/1770</u>
- Dastgir, S., Demir, E., Downing, G., Gozgor, G., & Lau, C. K. (2019). The causal relationship between bitcoin attention and bitcoin returns: Evidence from the copulabased Granger causality test. *Finance Research Letters*, 28, 160-164. <u>https://doi.org/10.1016/j.frl.2018.04.019</u>
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35(8), 982-1003. <u>https://doi.org/10.1287/mnsc.35.8.982</u>
- Farell, R. (2015). An analysis of the cryptocurrency industry. *Wharton Research Scholars* Journal, 130.

- Featherman, M. S., & Pavlou, P. A. (2003). Predicting E-sErvicEs adoption: A perceived risk facets perspective. *International Journal of Human-Computer Studies*, 59(4), 451-474. <u>https://doi.org/10.1016/s1071-5819(03)00111-3</u>
- Fishbein, M. & Ajzen, I. (1980). Understanding attitudes and predicting social behavior. Prentice Hall.
- Folkinshteyn, D. & Lennon, M. (2016). Braving bitcoin: A technology acceptance model (TAM) analysis. Journal of Information Technology Case and Application Research, 18(4), 220-249. https://doi.org/10.1080/15228053.2016.1275242
- Glaser, F.K., Zimmerman, M., Haferkorn, M.C., Weber, & Siering, M. (2014). Bitcoin asset or currency? Revealing users' hidden intentions. *Social Science Research Network*.
- Kim, T. (2017). On the transaction cost of bitcoin. *Finance Research Letters*, 23, 300-305. <u>https://doi.org/10.1016/j.frl.2017.07.014</u>
- Kuo Chuen, D. L., Guo, L., & Wang, Y. (2017). Cryptocurrency: A new investment opportunity? SSRN Electronic Journal. <u>https://doi.org/10.2139/ssrn.2994097</u>
- Krombholz, K., Judmayer, A., Gusenbauer, M., & Weippl, E. (2017). The other side of the coin: User experiences with bitcoin security and privacy. *Financial Cryptography* and Data Security, 555-580. <u>https://doi.org/10.1007/978-3-662-54970-4_33</u>
- Nadeem, M. A., Liu, Z., Pitafi, A. H., Younis, A., & Xu, Y. (2021). Investigating the adoption factors of cryptocurrencies: A case of bitcoin: Empirical evidence from China. SAGE Open, 11(1), 215824402199870. https://doi.org/10.1177/2158244021998704
- Ndubisi N. (2006). Factors of online learning adoption: A comparative juxtaposition of the theory of planned behaviour and the Technology Acceptance Model. *International Journal on E-Learning*, 5(4), 571–591.
- Neroth, P. (2013). Cyber currency: One way to bypass the Euro. *Engineering & Technology*, 8, 18.

- Pan, C., Gunter, G., Sivo, S., & Cornell, R. (2005). End-user acceptance of a learning management system in two hybrid large-sized introductory undergraduate courses: A case study. *Journal of Educational Technology Systems*, 33(4), 355-365. <u>https://doi.org/10.2190/b7tv-x8rn-0l66-xtu8</u>
- Roca, J. C., Chiu, C., & Martínez, F. J. (2006). Understanding E-lEarning continuance intention: An extension of the technology acceptance model. *International Journal of Human-Computer* Studies, 64(8), 683
 696. <u>https://doi.org/10.1016/j.ijhcs.2006.01.003</u>
- Segendorf, B. (2014). What is bitcoin. Sveriges Riksbank Economic Review, 2, 71-87
- Stamford, C. (2016). Gartner's 2016 hype cycle for emerging technologies identifies three key trends that organizations must track to gain competitive advantage. Gartner. https://www.gartner.com/
- Samson, T. (2012). *Malware infects 30% of computers in U.S.* InfoWorld. https://www.infoworld.com/article/2618043/
- Van Alstyne, M. (2014). Why bitcoin has value. *Communications of the ACM*, 57(5), 30-32. <u>https://doi.org/10.1145/2594288</u>
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal Field studies. *Management Science*, 46(2), 186-204. <u>https://doi.org/10.1287/mnsc.46.2.186.11926</u>
- Venkatesh, M. & Davis, D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425. <u>https://doi.org/10.2307/30036540</u>
- Walker, M.J. (2017). *Hyper cycle for emerging technologies*. Fartner.
- Xie, R. (2019). Why China had to ban cryptocurrency but the US did not: A comparative analysis of regulations on crypto-markets between the US and China. Washington University Global Studies Law Review, 18, 457-492.