WHAT DRIVES CRYPTOCURRENCY ACCEPTANCE IN MALAYSIA?

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Author's Biography

Despite cryptocurrency is deemed as a core evolution to the field of financial technologies, its legal status remains debatable over the globe. While the Malaysian government has launched cryptocurrency regulations in 2019, it is expected cryptocurrency will still be around in the near future. However, there is a lack of cryptocurrency acceptance study in Malaysia context. The primary goal of this study is to propose a research model that combines cryptocurrency variables with the constructs embedded in the Unified Theory of Acceptance and Use of Technology2 (UTAUT2) to investigate the influencing factors of cryptocurrency acceptance in a developing country context.

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RESEARCH HIGHLIGHTS

In the view of cryptocurrency is launched as a novel financial means that leverages on blockchain technology, this study proposes a new research model by taking the characteristics of cryptocurrency into consideration. In addition to the main constructs originally embedded in UTAUT2, three antecedents namely “Transaction Features”, “Government Regulations” and “Price Volatility” are proposed to study cryptocurrency acceptance. Subsequently, the seven UTAUT2 key constructs and three cryptocurrency dimension variables were used for the development of hypotheses statement. Before the main survey, a two-stage pilot study was carried out to determine the reliability and validity of the proposed measurement items. For the first stage of pilot study, the survey questionnaire was reviewed by four experts from the field of blockchain. For the second stage, 36 survey questionnaire responses were collected from individuals who have cryptocurrency knowledge. Successively, the results of PLS-SEM analyses indicate that the proposed measures are reliable and valid.

GRAPHICAL ABSTRACT

The following figure shows the Cronbach’s alpha values of all constructs measures are above the threshold value of 0.7, which is one of the indications of reliable constructs.

RESEARCH OBJECTIVES

Recently, blockchain technology and the advent of cryptocurrency has been receiving massive attention in various disciplines, especially within the domain of information technology, finance, and economics. Nevertheless, there seems a lack of study that examines cryptocurrency acceptance based on the intertwining of technological contexts and social aspects from information systems perspective (1, 2). On top of that, the empirical evidence on cryptocurrency acceptance study in developing country context is scarce and limited (3, 4). Hence, this study aims to identify the potential factors that contribute to cryptocurrency acceptance in Malaysia by utilizing UTAUT2 as a theoretical foundation and employ PLS-SEM approach for measurement model assessment. The advances of blockchain technology and the potential of cryptocurrency to complement the conventional fiat currency justify the need for understanding cryptocurrency acceptance factors. The findings of this study are expected to contribute valuable insight to regulators into developing a holistic regulatory framework and merchants will be able to design a feasible business model to stay competitive. For IS research stream researchers, this study achieves theory generalization by expanding the UTAUT2 usage to cryptocurrency context. Meanwhile, this study contributes a high-level overview of cryptocurrency acceptance drivers as well as a reliable and valid survey instrument.

MATERIALS AND METHODS

With the aim of achieving the aforementioned research objective, this study adopts a quantitative approach in a deductive manner with the means of online survey questionnaire to collect data for pilot study purpose. To ensure the reliability and validity of the proposed survey instrument, a two-stage pilot study was conducted. During the first stage of pilot study, cognitive interviews were carried out with four blockchain experts to recognize the potential problems of the survey questionnaires such as the ambiguity of individual terms used, the lengthy format of questionnaire and the difficulty in navigating through the questions. The survey questionnaire was then revised and corrections were made accordingly. During the second stage of the pilot study, the link to the revised questionnaire was distributed to the same type of people who will respond to the full-scale survey. Considering the anonymous and decentralized nature of cryptocurrency, it is unable to retrieve a complete list of Malaysian individuals who is accepting and adopting cryptocurrency. Therefore, non-probability sampling technique is employed to select respondents who have joined cryptocurrency social media groups to participate in the pilot study. A total of 36 responses were used for PLS-SEM analyses with the help of SmartPLS software (5).

RESULTS

The survey questionnaire items were developed based on the existing measures proposed by (6) and the new measures were designed based on the proposed cryptocurrency variables. For self-administered questionnaire, it is important to conduct reliability and validity tests to ensure the goodness of measures before carrying out a full-scale survey. SmartPLS was used to assess the measurement model with the gathered pilot data from 36 respondents. In term of reliability test, the composite reliability and Cronbach's alpha values of all constructs are higher than 0.7, which have achieved the acceptable threshold value. With regards to validity tests, convergent validity and discriminant validity of the measurement model was assessed. For convergent validity, the outer loadings of measurement items and the average variance extracted (AVE) of each construct were measured. Following the threshold value requirement of 0.708 for

loadings, three items were removed because of the significantly low loadings. On the other hand, all constructs have a satisfactory AVE value as they are higher than 0.5. For discriminant validity analysis, the measurement model was assessed using Fornell-Larcker Criterion (7) and the heterotrait-monotrait ratio of correlations (HTMT) (8). Based on the findings of both assessments, an item was removed to achieve discriminant validity.

FINDINGS

In a nutshell, a research model that integrates UTAUT2 constructs and cryptocurrency variables were proposed and subsequently a two-stage pilot study was conducted in order to ensure the goodness of measures before carrying out a full-scale data collection. The first developed survey questionnaire was reviewed by four field experts and corrections were made accordingly. During the second stage of pilot study, PLS-SEM approach was used to conduct reliability and validity tests. Based on the PLS-SEM findings, four measurement items were removed to exhibit satisfactory level of reliability and validity. The revised instrument can now be used for actual data collection.

REFERENCES

1. Ermakova T, Fabian B, Baumann A, Izmailov M, Krasnova H. Bitcoin : Drivers and Impediments. SSRN Electronic Journal. 2016;2:1-18.
2. Morisse M, editor Cryptocurrencies and Bitcoin: Charting the Research Landscape. 31st Americas Conference on Information Systems; 2015; Puerto Rico.
3. Henry CS, Huynh KP, Nicholls G. Bitcoin Awareness and Usage in Canada. Journal of Digital Banking. 2018;2:311-37.
4. Kick A, Connolly AJ, editors. Bitcoin research past, present and future. 11th Annual USC Upstate Research Symposium; 2015.
5. Ringle CM, Wende S, Becker J-M. SmartPLS 3 2015 [Available from: www.smartpls.com].
6. Venkatesh V, Thong J, Xu X. Consumer acceptance and user of information technology: Extending the unified theory of acceptance and use of technology. MIS Quarterly. 2012;36:157-78.
7. Fornell C, Larcker DF. Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. J Marketing Res. 1981;18(1).
8. Henseler J, Ringle CM, Sarstedt M. A new criterion for assessing discriminant validity in variance-based structural equation modeling. Journal of the Academy of Marketing Science. 2015;43(1):115-35.