

Psychological Risk, Security Risk and Perceived Risk of the Cryptocurrency Usage

Agus Muhammad Mirza
Management Department, BINUS
Online Learning
Bina Nusantara University
Jakarta, Indonesia
agus.mirza@binus.ac.id

Ika Sari Wahyuni-TD
Accounting Department,
Faculty of Economics
Universitas Andalas
Padang, Indonesia
ikasariwahyunitd@gmail.com

Yudi Fernando
Management Department, BINUS
Online Learning
Bina Nusantara University
Jakarta, Indonesia
yudi.fernando@binus.ac.id

Ridho Bramulya Ikhsan
Management Department, BINUS
Online Learning
Bina Nusantara University
Jakarta, Indonesia
ridho.bramulya.i@binus.ac.id

Fineke Mergeresa
Faculty of Industrial Management
Universiti Malaysia Pahang
Pahang, Malaysia
fineke.m@gmail.com

Erick Fernando
Department of Information System
Faculty of Engineering and
Informatics, Universitas Multimedia
Nusantara
Tangerang, Indonesia
erick.fernando@umn.ac.id

Abstract— Today's technology is increasingly advanced and developing, changing payment and investment methods. The emergence of crypto currencies represents the most recent innovation. Cryptocurrencies have attracted the attention of information technology professionals, economists, investors, banks and governments. However, aside from the advantages, there is also the expectation of cryptocurrencies of potential risks in using currency. This study aims to identify the factors influencing the decision to use cryptocurrency. The factors discussed are perceived risk, psychological risk and security risk. This study used a purposive sampling technique. The data were analysed using PLS-SEM with a final sample of 181 respondents. The results show that psychological, security and perceived risks significantly affect cryptocurrency usage. A relatively new technology makes it easier for individuals to make decisions about using cryptocurrencies. However, lack of information often causes individuals to face uncertainty and various levels of risk. However, individual decisions in using technology are not only influenced by risks but also benefit factors.

Keywords— *cryptocurrency; perceived risk; security risk; psychological risk; digital currency*

I. INTRODUCTION

Today's technology goes so fast. Digitalization and automation bring various innovations to human life. This innovation can benefit various sectors, including finance [1]. The emergence of cryptocurrencies represents the most recent innovation. Cryptocurrencies have attracted the attention of information technology professionals, economists, investors, banks, governments, and even the police. Cryptocurrency is connected through one individual, who will be forwarded to another individual online. Cryptocurrency has no third-party term, so users interact directly without other parties [2]. The use of cryptocurrency will provide various benefits and challenges. The advantage is that all financial transactions can be carried out directly from the payer to the recipient. Meanwhile, the challenge is to weaken the role of intermediary institutions because transactions are digital [3]. Despite the benefits, the use of cryptocurrencies also has some risks. Exchange rates of cryptocurrencies often fluctuate against currencies in general. In addition, in terms of transactions, there is a risk of being hacked or system errors. The identity of the party conducting the transaction is often unknown. Therefore,

cryptocurrencies can be used as a means of criminal acts such as money laundering, gambling and even terrorism financing.

This study adopts the research model Ryu conducted to identify perceived benefits and perceived risks in using financial technology (Fintech)[4]. This study tries to modify Ryu's research model. Modifications were made, such as adding several user behaviour variables as well as psychological risk, security risk and perceived risk variables so that they would provide a specific description of the profile of cryptocurrency users. By doing so, it is hoped that this research will be able to produce findings about the risk factors that influence individuals in using cryptocurrencies.

This research can contribute theoretically and practically. (1) This research theoretically discusses the risk factors that affect the use of cryptocurrencies. In this study, several risk variables were added that did not exist in previous studies. It is hoped that this research will present new findings that can provide references for further research; (2) This research is expected to help users and potential users determine strategies for using crypto currencies. (3) This research is expected to contribute as a reference for government considerations in formulating and implementing policies related to using cryptocurrencies by the people in Indonesia.

This research has several parts. The first part is about the background of the research. Next, the literature review of the main variables will be discussed. Then, the next section is the hypotheses development to support the rationale of the hypothetical model. The next section explains the data collection method and is followed by the results. Then, proceed to the conclusions and suggestions for improvement for future research.

II. LITERATURE REVIEW

A. The Cryptocurrency and Consumer behaviour

Understanding "why and what consumers do" is at the heart of consumer behaviour. Schiffman and Kanuk suggest that consumer behaviour is a study of how an individual makes decisions to allocate available resources (time, money, effort, and energy) [5]. Consumers have a unique diversity to study because they include age, culture, education, socio-economic and others. Kotler explains the various factors that underlie the formation of consumer behaviour: cultural,