

**FACTOR THAT INFLUENCES THE USAGE OF CRYPTOCURRENCY
AMONG PRIVATE SERVICE EMPLOYEES**

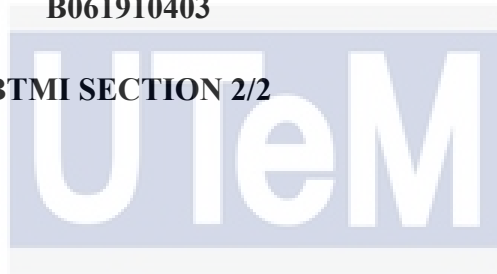
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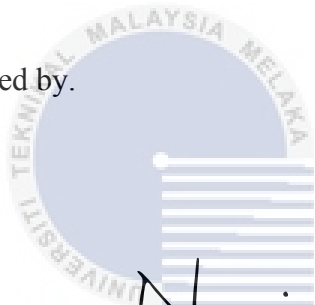
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2023

SUPERVISORS DECLARATION

I declare and have read that this final year project entitled *FACTORS THAT INFLUENCE THE USAGE OF CRYPTOCURRENCIES AMONG PRIVATE SERVICE EMPLOYEES* was prepared by an author: MUHAMMAD HAZIQ BIN HASLAN has met the required standard for submission in partial fulfilment of requirement for the award of Bachelor (Hons.) of Technology Management (Innovation) at Universiti Teknikal Malaysia Melaka (UTeM).

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Date:

9/2/2023

STUDENT'S DECLARATION

With the exception of citations and quotations that have been properly acknowledged, I hereby declare that this thesis is based on my original work.' I further declare that it has not been submitted for any degree or award at Universiti Teknikal Malaysia Melaka or any other institution earlier or concurrently.

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DEDICATION

I would like to dedicate the success of this research project especially to my lovely parents first and foremost. To my understanding and hardworking mother, Marina Binti Mansor who have been a great mentor to me whenever I stumble upon jargon or difficulties that are new to me. To my late-father, Haslan Bin Mohamed, I thank you for raising me well for these 19 years that we are together. It is from my father's paycheck that I have been able to afford the equipment needed to complete this study thus making him an irreplaceable component of this research. I would also like to say thank you to my wonderful siblings, Hazwan, Haqimi and Haidar for being compliant to my demands of using the study room personally, proving you guys to be the best set of brothers one could ever dream for. Not to forget Assoc. Prof. Dr. Norain Binti Ismail who have been missing sleep and cutting off her rest hours just to accommodate for our scheduled weekly meetings. Truly, thank you for all your sacrifices, Dr. Norain. Last but not least, I would want to express my thanks towards my classmates of the BTMI Section 2 class who have been nothing but a blast to be with. Thanks to all of them, this report had been completed successfully without any issues and for that reason, while I know that I have repeated this too many times probably by now, I just wanted to emphasize once again, Thank You.

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ABSTRACT

As the progress in technology advances in the realm of space discovery and modern medicine, so does the technological revolution mark its presence in the universe of economics, specifically in the world of currencies. With the boom of cryptocurrencies in the market becoming a thing in developed countries such as in the United States of America and France, demands for an extensive and thorough study towards the subject matter has become more than ever. In Malaysia for particular, the idea of an 'e-wallet' that holds an intangible asset that somehow signifies wealth is still an alien concept, either to the young or to the old, no matter the profession. To curb this from becoming an issue in the future, an answer towards the inquiry of why does the idea of cryptocurrencies elude the minds of the average Malaysians has become a must. Therefore, this project serves to become the answer towards that particular question. This research is conducted to understand the factors that play within the minds of private service employees when one talks about the usage of cryptocurrencies.

Keywords: Cryptocurrency, Private service employee, Factors

ABSTRAK

Di samping kemajuan teknologi di dalam bidang penerokaan alam semesta dan perubahan moden, revolusi teknologi ini juga telah menandakan ketibaannya di dalam aspek ekonomi, terutama sekali di dalam jurusan mata wang. Melihat kepada ledakan penerimaan mata wang kripto di negara-negara maju seperti Amerika Syarikat dan Perancis telah melahirkan sebuah permintaan terhadap suatu kajian yang ekstensif dan terperinci terhadap mata wang kripto. Di Malaysia terutamanya, tanggapan orang ramai terhadap sebuah 'e-wallet' yang mampu menyimpan aset secara atas talian adalah masih asing, tidak kira sama ada bagi yang tua ataupun muda. Untuk mengelakkan perkara ini daripada menjadi masalah pada masa hadapan, sebuah solusi terhadap pertanyaan dimana mengapakah idea penggunaan mata wang kripto sukar menerima sambutan di mata rakyat Malaysia perlulah dikenalpasti dengan segera. Oleh hal yang sedemikian, kajian ini telah dilaksanakan untuk mengenalpasti faktor-faktor yang mempengaruhi minda seorang pekerja perkhidmatan swasta apabila ditanya mengenai penggunaan mata wang kripto.

Kata kunci: Mata wang kripto, Pekerja perkhidmatan swasta, Faktor

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CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter explains the background of the study, research problem, research question, research objectives, scope, limitation, and importance of the study. To complete a bachelor's degree Dissertation (Projek Sarjana Muda PSM) in the Faculty of Technology Management and Technopreneurship, the author chooses to write about the factors that influence the usage of cryptocurrencies among private service companies.

1.2 Background of the study

Cryptocurrencies are a new form of digital currency that appeared in 2009. At the moment, cryptocurrency is a recent phenomenon that is receiving significant attention. The attention it was getting was due to its intrinsic value as an asset that can be used as any other currency out there. This is because, on the one hand, it is based on fundamentally new technology, the potential of which is not fully understood. On the other hand, at least in the current form, it fulfils similar functions as other, more traditional assets (Yukun Liu and Aleh Tsyvinski, 2021).

Over the course of its brief existence, the cryptocurrency market has now developed unpredictably and at an unparalleled rate. More than 550 cryptocurrencies have been created since the public launch of the original anarchist cryptocurrency, Bitcoin, in January 2009. The majority of these are decentralized, with relatively marginal success. But a journey thither will be necessary to comprehend this disturbance. The start is crucial. Although the idea of electronic money first came around in the late 1980s, Satoshi Nakamoto, a developer using a pseudonym who is still unknown, introduced Bitcoin in 2009 as the initial, prosperous decentralized cryptocurrency. Bitcoin advanced the digital coin market, decentralized the money, and liberated it from hierarchical power structures, which contributed to its success. Individuals and companies now use the coin to conduct electronic transactions on a peer-to-peer network in place of the outdated mechanism. Beginning in 2011, it attracted a lot of interest, and a number of altcoins—a collective term for all currencies released after Bitcoin—soon emerged.

Because they offer effective payment systems through a decentralized distributed ledger that is Independent of political processes or state regulatory systems, cryptocurrencies have gained popularity. However, this technology is vulnerable to many forms of fraud and maliciousness. Hackers can take electronic identities and transfer money from lawful accounts if they have access to the public's credentials. Hackers may carry out phishing attacks in which they seem to be reliable sources in order to gain passwords. Information can also be stolen directly by hackers through security flaws. With that taken into consideration, despite cryptocurrencies being a new asset class that offers promising prospects in the future, it is not one without substantial issues, particularly that of the provision of a platform for criminality and, indeed, major cyber criminality events (Shaen Corbet, Douglas J. Cumming, Brian M. Lucey, Maurice Peat, Samuel A. Vigne, 2022). Despite the many incredible advancements in medicine and technology, online commerce has come to rely almost entirely on financial institutions acting as trusted third parties to handle electronic payments. Even though the old, traditional system still functions adequately for the majority of transactions, it still suffers horribly from the inherent flaws of the trust-based model. The major disadvantages that are associated with the trust-based models are their perceived irrevocability, which to sum up is the loss of control over assets that are put into trust and them costs which are by any means not cheap (Sovereign Group, 2022). Therefore, a system of electronic payments based on cryptographic evidence rather than trust is required.

This system would enable any two willing parties to conduct business directly with one another without the need for a third party. This simple need for a better transaction method was the moment of birth for cryptocurrencies, specifically, Bitcoin (Satoshi Nakamoto, 2008). Without a question, the decentralized ledger technology that cryptocurrencies now employ, the Blockchain, has the most value. A wide range of companies, including those in banking, healthcare, other fields, utilities, and government, are now showing interest in blockchain. This increased interest is caused by the fact that with a blockchain, apps that previously only functioned through a reliable intermediary may now run decentralized, without the requirement for a verification mechanism, and accomplish the same functionality with the same level of trustworthiness. In other words, the difficulty of needing to rely on third parties for transactions or any other types of procedures is reduced by the use of blockchain. However, how does this relate to the supply chain? Supply chain management is becoming a key focus for businesses that deal with moving goods between parties. The concern with this sector, though, is that because of its size, there may be delays and defaults in the delivery of goods, in addition to other problems. Blockchain enables companies to automate all their processes, contributing to a significant increase in the number of businesses and distributors in the supply chain without having to fear an imminent risk of attack (Roberto Casado-Vara, Javier Prieto, Fernando De la Prieta, and Juan M. Corchado, 2028).

1.3 Problem statement

The main point of this research is to find out why private service employees in Malaysia particularly, are not using cryptocurrencies in their daily lives. In this modern age where everything could be executed online, why would someone opt not to? Upon reading an ample number of academic journals and related articles, it is concluded that there are four reasons why private service employees are so reluctant upon relying on cryptocurrencies to do their daily bidding. The reasons are total lack of awareness on cryptocurrencies as a currency, its risky and unsafe environment of procedures, the volatility of cryptocurrencies and the young age of the cryptocurrency market. The total lack of awareness was due to the zero exposure of cryptocurrencies towards the Malaysian market. Back when Satoshi Nakamoto completed Bitcoin in 2009 (Izwan Amsyar, Ethan Christopher, Arusyi Dithi, Amar Najiv Khan, Sabda Maulana, 2020), the whole appeal of an intangible online currency was practically unheard of in Southeast Asia. Combine this with the fact that cryptocurrencies had been in a state of turmoil during the recent years after a cyber-attack on Mt. Gox (Pavel Ciaian, Miroslava Rajcaniova & d'Artis Kancs, 2016), it makes total sense to have a skeptical view on cryptocurrencies as a whole. Cryptocurrencies also have a knack to change prices from time to time, or what experts would call as 'price volatility'. This means that if a cryptocurrency that someone owns back then was of 4 dollar's value, it could fluctuate towards 16-dollar value or half a dollar value, depending on sensitivity of investors and currency holders to market news (Alexey Mikhaylov, 2020).

In short, the inability to adapt to cryptocurrencies in the near future could put the average Malaysian in a disadvantage, as people with prior knowledge could then monopolize this currency for their own good.

1.4 Research Question

To achieve the objectives of the study, this paper will provide an explanation as to why these assessment problems occur by addressing the following the research questions:

- 1.4.1 What are the types of cryptocurrencies that are usually used amongst private service employees?
- 1.4.2 What are the factors that influence the usage of cryptocurrency amongst private service employees?
- 1.4.3 What are the challenges faced by private service employees in using cryptocurrencies?

1.5 Research Objectives

The study is carried out on the factors that influence the usage of cryptocurrencies among private service employees. The following are the research objectives that trying to achieve it:

1.5.1 To study the types of cryptocurrencies that are used amongst private service employees.

1.5.2 To analyze the factors that influence the usage of cryptocurrency amongst private service employees.

1.5.3 To examine the challenges faced by private service employees in using cryptocurrencies.

1.6 Scope of Study

This study is conducted to identify the factors that influence the usage of cryptocurrencies among private service companies. The respondents use in this research will comprise approximately five private service employees from the well-known insurance firm, AXA. Most of them are not strangers to the idea of cryptocurrencies and are able to invest some if not a lot into the idea. Thus, there is a possibility of a high correlation rate between the usage of cryptocurrencies and private service companies. This research will be conducted in Melaka Tengah, Melaka. This area was chosen as the sampling grounds for respondents as it was a bustling city that houses the headquarters of AXA Sdn. Bhd. This allows the researcher to be a lot more precise in selecting respondents without sacrificing quality.

1.7 Significance of Study

First and foremost, this study is hoped to reduce negative perception towards cryptocurrencies. The majority of people in Malaysia has a firm belief to reject cryptocurrencies down to its core as it is different from the traditional way of purchasing goods via fiat currencies that rely almost exclusively on financial institutions serving as trusted third parties to process electronic payments (Satoshi Nakamoto, 2008). In addition, it is our best interest that this study will help to generate the knowledge related to the cryptocurrencies as studies upon the topic is very scarce in Malaysia. Last but not least, the author wishes that this study would prove to be beneficial to students and future researchers who wish to further review upon the topic of cryptocurrencies. This could prove to be helpful to adults who wants to understand cryptocurrencies as a whole or those who are simply interested in its concept.

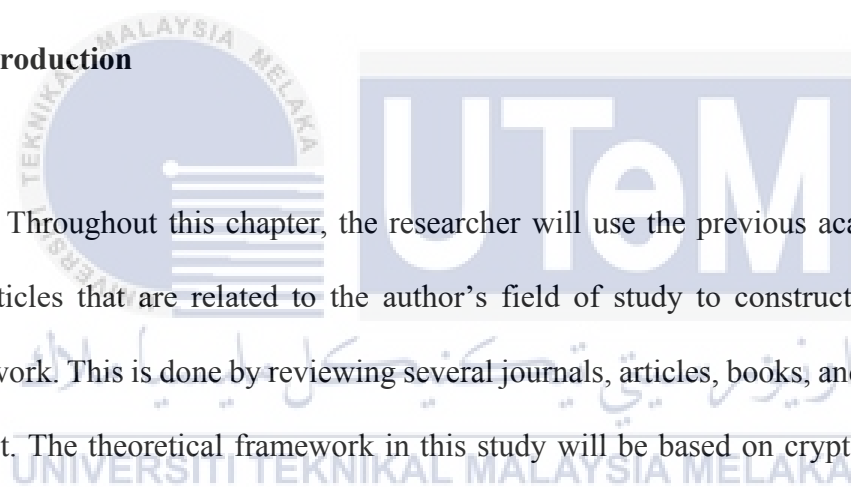
1.8 Summary

This chapter was addressed to establish the groundwork of the study. The author has explained the history and background of the study in a written manner. The issue statement, research questions, research aims, the study's scope, and its importance are all included in the author's explanation.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction



Throughout this chapter, the researcher will use the previous academic journals and articles that are related to the author's field of study to construct the theoretical framework. This is done by reviewing several journals, articles, books, and sources on the internet. The theoretical framework in this study will be based on cryptography and its overall benefits as well as disadvantages. This study is also hoped to be able to shed a light on the barrier that is preventing private service companies from fully utilizing cryptocurrencies in their daily ordeals. In the future, the realm of electronic wallets and currencies is a subject that is gleaming with promises and opportunities. Therefore, understanding the factors that influence the rate of cryptocurrency usage amongst the common public is a hard-to-miss topic of research. Within this section as well, the study distance identified in earlier studies was also clarified.

In short, in this chapter, the author of the paper will explain about the factors that influence the usage of cryptocurrencies among private service companies by referring to the previous research which are perceived as useful, easy to read and use, informational, and trustable.

2.2 Bitcoin – The First Decentralized Cash System

Bitcoin is the most used cryptocurrency of the current decade. Despite its seemingly easy-to-use nature, it was not built in just a night. Bitcoin was a process of tons of trial-and-error sessions. The result would then become the first decentralized cash system that was finally created for the first time in 2009 by Satoshi Nakamoto, a mysterious name of the group or individual that succeeded in creating it. This creation of Satoshi Nakamoto would then be known as Bitcoin (Izwan Amsyar, Ethan Christopher, Arusyi Dithi, Amar Najiv Khan, Sabda Maulana, 2020). An article titled ‘Evolutionary dynamics of the cryptocurrency market’ defined Bitcoin as a digital asset designed to work as a medium of exchange. Users can send and receive native tokens, the ‘bitcoins,’ while collectively validating the transactions in a decentralized and transparent way (Abeer ElBahrawy, Laura Alessandretti, Anne Kandler, Romualdo Pastor-Satorras and Andrea Baronchelli, 2017). Not long after its creation, Bitcoin took the digital coin market one step further, decentralizing the currency and freeing it from hierarchical power structures. With blockchain, individuals and businesses transact with the coin electronically on a peer-to-peer network. It caught wide attention beginning in 2011, and various altcoins – a general name for all other cryptocurrencies post-Bitcoin – soon appeared (Ryan Farrell, 2015).

2.3 Nano - A Feeless Distributed Cryptocurrency Network

Nano is a low-latency cryptocurrency built on an innovative block-lattice data structure offering unlimited scalability and no transaction fees (Colin LeMahieu, 2018). The cryptocurrency Nano was created and designed by Colin LeMahieu, a software engineer and the CEO and founder of The Nano Foundation, headquartered in the U.K. It was launched initially in 2014 under the name RaiBlocks, which however was rebranded as Nano in January 2018 (Kraken, 2022). Nano came into fruition due to the staggering number of demands from current investors on a better cryptography wallet system compared to the previous ones. This demand rises due to the few flaws that Bitcoin houses despite being the most popular cryptocurrency on the globe. This is because as cryptocurrencies gain popularity and credibility, marketplaces for cryptocurrencies are growing in importance and thus justifying the overall demand (Peter M. Krafft, Nicolás Della Penna, and Alex “Sandy” Pentland, 2018). One thing that is interesting about Nano is that its price volatility does not fluctuate as drastically as Bitcoin, making it a safe haven for sceptical investors that are just trying out in the cryptocurrency scene. This is a very important aspect to the investors when gold prices increase during downward market movements, investors interpret this as an increase in the uncertainty of the macroeconomic environment and thus transmit the increased uncertainty and volatility of the stock market to the gold market. By contrast, if gold prices decrease in periods of rising stock markets, the uncertainty/volatility will similarly be transmitted by investors to the gold market (Elie Bouri, Georges Azzi, and Anne Haubo Dyhrberg, 2017).

2.4 Litecoin – The complementary aspect of Bitcoin

Litecoin was created in 2011 by Charlie Lee, a Google employee (CoinLoan, 2020). Litecoin is a decentralized, peer-to-peer (P2P) digital currency and payment network supported by an open source blockchain protocol (GRAYSCALE, 2022). It falls under the cryptocurrency category, the same as Bitcoin and Nano, only this time with a different name. Litecoin is one of the very first altcoins on the market. While many altcoins from the period 2011-2013 have now disappeared, Litecoin has remained in the market thanks to some minor modifications compared to Bitcoin, but still useful and well thought out (coinhouse, 2022). These well-thought-out ideas and modifications deemed to be extremely crucial because as of now, Litecoin is now one of the most recognized, trusted, and used blockchain-based payment networks in the world, and many now agree that Litecoin is a complement to Bitcoin, not a competitor: Litecoin is the silver to Bitcoin's gold (Charlie Lee, 2022). The fact that Litecoin somehow evolves into a complementor for Bitcoin comes from Litecoin's origin of coding as Litecoin's code is a work of a Bitcoin Core client, and technically similar to Bitcoin. The main difference is a decreased block generation time of just 2.5 minutes, compared to Bitcoin's ten minutes. These speeds up transaction times and its lightweight design is where the name "Lite Coin" came from (PrimeXBT Editorial Team, 2021).

2.5 Ethereum – More than just a currency

After the release of Bitcoin, blockchain quickly grabbed the imaginations of developers around the globe. In 2013 this led a Canadian developer, Vitalik Buterin, to propose a new platform which would allow for decentralized application to usher in a new era of online transactions. This platform would become the little steps towards the development of Ethereum. In 2015, following an initial fundraiser, Ethereum was launched, and 72 million coins were minted. These initial coins were distributed to the individuals who funded the initial project and still account for about 65% of coins in the system as of April 2020 (Plus500, 2022). Ether (ETH), the cryptocurrency of the Ethereum network, is the second most popular digital token after bitcoin (BTC) (Nathan Reiff, 2022). The intent of Ethereum has always been to create a blockchain that not only makes cryptocurrency, but also allows people to build decentralized applications, or DApps. These DApps are sort of like the apps on your phone, except they are built on top of a blockchain and accessed through a crypto wallet (Megan DeMatteo, 2022). Instead of becoming a direct competitor of Bitcoin in its own playing field, the developers of Ethereum established it with a different idea in mind. The proponents of Ethereum believe its main advantage over Bitcoin is that it allows individuals and companies to do much more than just transfer money between entities leading Bloomberg to write it's "the hottest platform in the world of cryptocurrencies and blockchains" and companies such as JPMorgan Chase, Intel, and Microsoft to invest in it (Bernard Marr, 2018).