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

BY

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## 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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## 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.



#### **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.

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Keywords: Cryptocurrency, Private service employee, Factors

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#### ABSTRAK

Di samping kemajuan teknologi di dalam bidang penerokaan alam semesta dan perubatan 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 pengunaan 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 pengunaan 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.

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#### **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.

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#### 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 trialanderror 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 peertopeer network. It caught wide attention beginning in 2011, and various altcoins -ageneral name for all other cryptocurrencies post-Bitcoin – soon appeared (Ryan Farell, 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).

#### **2.6 Ripple – A story of three engineers**

Ripple is one of the most mainstream cryptocurrencies and still occupies the third place on CMC (CoinMarketCap) with a \$10 billion capitalization at this very moment. Initially, Ripple was very far from all crypto technologies. Its original brand name was Ripplepay. It was founded by Ryan Fugger, a software developer in 2004 in Vancouver, Canada, long before Satoshi Nakamoto released his first version of the Bitcoin blockchain. Ripplepay didn't use any blockchain technologies, but it had the same purpose - providing its users with tools to be able to securely transact money around the world. Even Satoshi Nakamoto knew about this payment system, giving a remark: "Ripple is interesting in that it's the only other system that does something with trust besides concentrating it into a central server". For many years it was working this way, but in 2012, Fugger sold it to Jed McCaleb, Arthur Britto, and David Schwartz, who wanted to use it for their future digital currency network. The new company was named OpenCoin (CoinLoan, 2022). In 2013 the OpenCoin company was renamed to Ripple Labs, Inc and made the code of the Ripple Network open source. In 2015 they changed the company name again, shortening it to just "Ripple." Since 2016 Ripple has the BitLicense from the New York State Department of Financial Services, allowing it to make operations with cryptocurrencies. The story of Ripple could be traced back in 2011, where three engineers—David Schwartz, Jed McCaleb, and Arthur Britto—began developing the XRP Ledger (XRPL). Fascinated by Bitcoin, they set out to create a better version that improved upon its limitations—with the goal of creating a digital asset that was more sustainable and built specifically for payments (XRP Ledger, 2021).

From a proper analysis of the literature, the researcher is able to catch the essence of cryptocurrencies and how exactly they came into fruition. Stories that display upon the humble beginnings of a certain token gives the researcher an ample amount of knowledge in terms of the demand and functionality of the specified cryptocurrency.

#### 2.7 Price volatility of cryptocurrencies

The price of every available cryptocurrency out there is constantly wavering. From the highly used ones such as Bitcoin to the practically unheard of such as Smooth Love Potion (SLP), its price and value on the marketplace is always changing every minute due to its volatile nature. However, these changes are not just random changes in numbers as an academic article has already established that cryptocurrency prices are driven and can be predicted by factors that are specific to cryptocurrency markets (Yukun Liu and Aleh Tsyvinski, 2021). One of these factors is the cryptocurrency's worth in market capitalization. Take for example, Bitcoin's cryptocurrency market surpassed the barrier of \$100 billion market capitalization in June 2017, after months of steady growth (Abeer ElBahrawy, Laura Alessandretti, Anne Kandler, Romualdo Pastor-Satorras and Andrea Baronchelli, 2017). This outstanding performance boosted Bitcoin's price to 15 888.40 dollars as opposed to 1 Bitcoin back in December 2017 (Yahoo Finance, 2018). Another factor that contributes to the price formation of a specific cryptocurrency is the demand for it. According to Pavel Ciaian, Miroslava Rajcaniova & d'Artis Kancs (2016), the supply of Bitcoin determines the number of units in circulation and thus its scarcity on the market. The demand of Bitcoin is mainly determined by transaction demand as a medium of exchange for goods and services. This demand towards Bitcoin helped Bitcoin to establish its price in the cryptocurrency market despite its numerous other competitors. A group of researchers also added that if the supply and demand for bitcoin increases the value of bitcoin, and vice versa if the supply and demand of bitcoin is declining then the value of bitcoin will also decrease in value.

#### 2.8 Risks and dangers of using cryptocurrencies

The emergence of Bitcoin is not without its own set of worries as a lot of people are overall skeptical with the usage of a digital currency. A lot of the worries comes from the uncertainty of an ungoverned financial ledger that publishes bitcoins as commerce on the Internet has come to rely almost exclusively on financial institutions serving as trusted third parties to process electronic payments (Satoshi Nakamoto, 2008). Yukun Liu and Aleh Tsyvinski (2021) also stressed that despite cryptocurrency being a recent phenomenon that is receiving significant attention. 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 fulfills similar functions as other, more traditional assets. The fact that it is a new technology that can be used in our daily lives attracted a lot of inquiries and concerns about it. These concerns are not without rationale however as Bitcoin is indeed not being issued by a specific central bank or government. Thus, it is detached from the real economy implying that there are no macroeconomic fundamentals that would determine its price formation (Pavel Ciaian, Miroslava Rajcaniova & d'Artis Kancs, 2016). This means that these sorts of digital currency may collapse or vanish into thin air as soon as a major problem occurs, unlike fiat currencies that are protected by financial institutions such as PIDM (Perbadanan Insurans Deposit Malaysia) and others. In addition to that, using cryptocurrencies in basic transactions would mean an exponential increase of digitized data. An increase in the amount of digitized data and the expansion of Internet companies means that the risk of attacks on their databases is also greater. Hackers may intend to modify, steal, or delete data (Roberto Casado-Vara, Javier Prieto, Fernando De la Prieta, Juan M. Corchado, 2018).

In summary, the idea of cryptocurrencies is an investment that certainly comes with its own set of risks and dangers that are not without rationale. The frequency of headlines and newspaper articles that display the outright vulnerability of cryptocurrencies as well as the testimonies from victims of a cryptocurrency attack will always manage to create fear in the hearts of people around the world.

#### 2.9 The Technology Acceptance Model (TAM)

The technology acceptance model (TAM) is a figurative model that explains the acceptance of information systems by individuals. TAM postulates that the acceptance of technology is predicted by the users' behavioral intention, which is, in turn, determined by the perception of technology usefulness in performing the task and perceived ease of its use (Davit Marikyan and Savvas Papagiannidis, 2021). TAM is largely credited to Fred Davis in 1986, when he was part of the Computer and Information Systems, Graduate School of Business Administration at the University of Michigan in the US and is still used to this day albeit, with a different twist (Robert Allen, 2020). The Technology Acceptance Model (TAM) has been one of the most influential models of technology acceptance, with two primary factors influencing an individual's intention to use new technology: perceived ease of use and perceived usefulness. An example of this could be a scenario where an older adult who perceives digital games as too difficult to play or a waste of time will be unlikely to want to adopt this technology, while an older adult who perceives digital games as providing needed mental stimulation and as easy to learn will be more likely to want to learn how to use digital games (Neil Charness and Walter R. Boot, 2016).



(Figure 1) Image taken from: https://doi.org/10.1371/journal.pone.0216007

The image above shows an illustration of the Technology Acceptance Model

(TAM)

Justification: The model above, which is an illustrated version of the TAM, is chosen to measure the adoption of new technology based on customer attitudes (Robert Allen, 2020). In this study, the new technology which is being questioned is cryptocurrency, which is a novel invention in the realm of currencies and, by definition, a new technology to a lot of people. The customer in this study will then be reflected by the respondents in this research. The participants of the study, who are all private-sector employees, will play their role as "customers" in this project to suit the TAM guideline. In a nutshell, the Technologies Acceptance Model (TAM), which is based on consumer sentiments, is intended to gauge the acceptance of new technology.

#### 2.10 Conceptual Framework



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Theoretical framework is created in this shape and orientation to best suit this type of research. The framework above clearly depicts the variables and relationships that are within the range of this specific research. By using a theoretical framework, researchers like the author are able to understand the relationship between the variables of the theory and predict the type of relationship that exists between them. There are two types of variables which are independent variables and dependent variables. Independent variable is a variable that researchers can manipulate or control while a dependent variable is a variable that is observed by a researcher in a study.

#### 2.11 Summary

This chapter is intended to answer the well-established research objectives of this whole research by reviewing earlier literature that have been studying cryptocurrencies with the best of interest in mind. Backgrounds about the five most used cryptocurrency that is used today were mentioned as to allow the author to be well-versed on the topic beforehand. It is also meant as to answer the first research question as to what are the types of cryptocurrencies used the most amongst private service employees. The price volatility of cryptocurrencies answers the second research question. The risk and dangers of using cryptocurrency was also written to answer the third research question with the help of the previous literature left by the other researchers.

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#### **CHAPTER 3**

#### **RESEARCH METHODOLOGY**

# 3.1 Introduction LAYSI

This chapter will explain about the research methodology used to identify the factor that influences the usage of cryptocurrencies amongst private service employees. To answer the previously established research questions, appropriate research procedures must be followed, and those procedures will be orchestrated in this chapter. This chapter also consists of research design, methodological choices, sources of data, research strategies, sampling design, and statistical tools.

#### **3.2 Research Design**

Research design by itself holds many definitions as it was interpreted differently by a lot of different parties. A research design is a form of structured system of research methodologies and procedures chosen expressly by a researcher, according to QuestionPro, a website renowned for its range of contributions toward data gathering methods. Researchers can concentrate on study techniques that are suited for their topic by using a research design. In other words, research design is that one crucial component in any successful research as it acts as a tentative for the planned research work, making it into the framework of research (Akhtar, 2014).

Green and Tull (1975) are excellent researchers that wrote the book 'Research for Marketing Decisions'. They clarified that a study design specifies the procedures and methods to be used to get the required information. The project's general operational framework or pattern specifies what data must be gathered from which sources using what techniques. In layman's terms, they are trying to convey that a good research design will make the research in question to be easily understood by others.

Saunders et. al., (2012) reached an agreement that the design of a specific research is defined as the general plan on how someone would react towards the research question. According to them, the research design serves as a guide for acquiring, measuring, and evaluating data in order to establish research objectives, respond to research questions, and justify the use of certain data sources, methodologies, and procedures. Research design can be considered as an investigation that will provide a specific direction for the research design procedure. This is also known as technique or planning of inquiry (Denzin & Lincoln, 2011). Malek and Massoud (2011) stated that there are three types of research design. These three Types are exploratory, descriptive, and causal research. Given and Lisa (2008) cited that exploratory research, which is utilized to develop a qualitative knowledge of the underlying causes and motives, makes up the majority of qualitative research. On the other hand, quantitative research tends to focus more on the systematic empirical analysis of social phenomena using mathematical, statistical, or computational methods.

In this study, the researcher has decided to go with the thematic analysis research design to suit the qualitative study theme that the project is going with. By using this particular research design, the researcher will then have to conduct open-ended interviews with a selected number of respondents to obtain interview transcripts. These transcripts would then serve as a form of collective data in which the researcher would then go through to find the themes that suited this particular study.

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#### **3.2.1 Explanatory Research Design**

Explanatory research design proves to answer a question that is hard to solve due to the lack of information. In short, explanatory research is a research method that explores why something occurs when limited information is available (Tegan George and Julia Merkus, 2021). It helps to improve one's grasp of a particular subject, determine how or why a specific phenomenon is occurring, and forecast similar phenomena in the future (George, 2021). The main purpose of this research design is to first and foremost is to understand the problem at hand as opposed to finding conclusive answers in a jiffy. The way to understand the problem is to refer to the old records of previous studies. Although a preference of only recent journals would be optimal, a few inputs and wisdom from further back into the past would not hurt anyone. By using the previous academic journals to the researcher's bidding, a deeper grasp of understanding towards the study topic would be established, further increasing the credibility as well as significance of this study towards the public.

This particular research design was used to become a guideline for the researcher in determining the suitable research question and objectives for this project. As the data towards the subject matter is horrendously scarce, this research design was then picked to combat this particular problem. Through the contributions of the past studies, the researchers of this study have managed to make a lot of progress in this research and as such, could not have done it without that literature.
#### **3.3 Choice of Methodological Research**

In general, there are two choices of methodological research. Those two are quantitative research and qualitative research. According to Shank (1989), the quantitative method uses mathematical models and statistics for research, in attempts of producing numerical results that are considered to be more objective. For example, a compendium of data that is collected through a survey or questionnaire. Contrarily, the qualitative technique frequently uses what, how, and why inquiries that demand for the gathering of qualitative information as opposed to quantitative information to address research problems. For example, a recorded interview (Shank, 1989).

In this particular study, the researcher wishes to tackle the topic by applying the qualitative research method. Qualitative research can be defined as the study of the *nature* of phenomena and is especially appropriate for answering questions of *why* something is (not) observed, assessing complex multi-component interventions, and focussing on intervention improvement (Loraine Busetto, Wolfgang Wick & Christoph Gumbinger, 2020). The method of collecting data from the respondents had been set to interview sessions as qualitative research involves collecting and analyzing non-numerical data such as text, video, or audio tapes to understand concepts, opinions, or experiences. It can be used to gather in-depth insights into a problem or generate new ideas for research (Pritha Bhandari, 2020).

#### 3.4 Source of Data

Any type of information that is received in order to aid with this research is called data. Data Is an important element in research and studies worldwide. Data is collected through data collection. Data collection is the process of collecting and measuring information about variables of interest, systematically and sustainably, that enables one to answer stated research questions, test hypotheses, and evaluate results (Megel & Heermann, 1994). In other words, data collection is a strategy for obtaining and assessing knowledge factors in order to answer research questions in a systematic order. In constructing a data collection method, one should refer to their own research questions and objectives before proceeding to the next step. In the process of collecting data, there are two different types of data. They are called primary data and secondary data.

#### 3.4.1 Primary Data

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Primary data are a type of information that the researcher in question has gathered directly from a source, whether via the use of methodologies like surveys, interviews, or experiments. It is taken directly from primary sources and then recorded with the study goal in mind. Primary data are often unpublished, making them more trustworthy, real, and unbiased. Megel & Heermann (1994) defined primary data as information that has not yet undergone human modification or alteration; as a result, its validity is higher than that of secondary information.

Primary data was also described as information created by the researcher themselves, including surveys, interviews, and experiments created especially for figuring out and resolving the current study issue (Sulbha Wagh, 2020). In this research, the researcher used interviews as a method to obtain data. Interviews could be categorized into either primary or secondary data. If the interview was conducted personally or if the interview is in its original format, it is a primary source. However, if the researcher is reading about an interview in a newspaper written by someone else, it is a secondary source (Adrienne Mathewson, 2022). Interviews are a data-collection method in which respondents need to answer a set of similar questions in a predetermined way. It can also be defined as a gentle conversation between two people or more where questions are asked to a person to get the required responses or answers (Krishna Reddy, 2022).

The source of primary data for this particular study will be the transcripts of the interviews conducted during a particular session. These transcripts are considered primary data as it is gathered directly from a source, i.e., the respondent itself. The interviews are usually conducted during a respondent's free time either at work or at the respondent's residency. It can even be conducted without actually meeting the respondent as a lot of computer applications nowadays have enabled a two-way communication to occur easily online.

#### 3.4.2 Secondary Data

According to Megel & Heermann (1994), secondary data is data obtained from a source that has already been released in any form. Simply expressed, secondary data refers to any data gathering that the author does not obtain authentically, as well as the "analysis of data obtained by someone else" (Boslaugh, 2007). It is different from primary data because unlike primary data that is collected from direct sources, Vartanian defined that data obtained previously that is to be re-used for new concerns for which the collected data was not initially intended is known as secondary data (Vartanian, 2010). Nowadays, secondary data is essential to research since it is challenging to conduct fresh surveys that can capture historical advancements and/or advances. Books, newspapers, magazines, and journal articles are a few examples of secondary data. In this research, the researcher used secondary data to find the relevant information in literature review. For literature review, the researcher used the secondary data that comes in the form of journals and articles to extract any valuable information from past research. The accumulation of knowledge obtained would then be used to construct the conceptual framework for this specific study.

### **3.5 Research Strategy**

A research strategy is an overall plan for conducting a research study as a research strategy guides a researcher in planning, executing, and monitoring the study (Paul Johannesson & Erik Perjons, 2014). Jenny (2014) added that a research strategy is a stepby-step action plan that guides your thoughts and actions, helping you to consistently and on time perform research to achieve quality results and comprehensive reporting. However, not every research strategy is a good strategy. An effective research strategy included the clear objectives, data collections resources and research questions of the study to maintain the clarity of the topic on hand. The researcher uses the research strategy as a mechanism to inspect the topics that are related to the study matter. Through this research strategy approach, the researchers can address the research questions easily. The research question in particular is:

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

#### 3.6 Purposeful Sampling

As the method of obtaining data have been clarified to be interview sessions, and the method of this particular study have been established as qualitative, the sampling technique that will be used in this study have been decided by the researcher to be purposeful sampling. Purposeful sampling is used because according to Sheila Robinson (2020), Purposeful sampling, whereby evaluators interview someone because they play a particularly essential role in the project, is a widely popular sample strategy in qualitative assessment. This sample method aids the researcher in comprehending the subject at hand, particularly from important project participants.

3.7 Target Sample

The target sample for this study are private service employees who are currently working in the state of Malacca, a state that is situated in the southern region of Malaysia. The private service employees are those who are working under the insurance company, AXA. The reason behind choosing private service employees as respondents is due to the simple fact that in some cases, employees working in the federal sector receive remuneration up to 26 percent lower than what they could receive in the private sector for a similar role (David Stewart, 2019). Due to this higher percent of income flow, it is more likely for a private service employees that mostly save their money for their upcoming pension.

Consequently, they are also potential users of cryptocurrencies as they have a better understanding of the internet and technology due to their work nature. The number of people involved in the interview have been set to be the researcher, acting as the interviewer with five other private service employees, serving as respondents.

#### 3.8 Location of the research

All of the respondents were employees of the insurance company, AXA. They were all working under the Melaka Raya branch of AXA Malaysia, and an such were perfect samples for this study as being in Malacca allows for a smooth and quick interview session as the distance between the researcher's faculty and the administrative office of AXA is only a stone's throw away. Melaka Raya is a commercialized area of Malacca that is within the district of Melaka Raya and under the jurisdiction of MBMB (Majlis Bandaraya Melaka Bersejarah). Over the years, rapid growth and development have transformed this once an empty and uninhabited beach into a rapidly developing city.

### 3.9 Time Horizon

A time horizon is your investing timeline, or how long you plan to hold an asset before selling it. Time horizon can also be your timeframe for achieving a financial goal, such as retirement (Sheena Zimmermann, M.Ed, 2022). In other words, a time horizon is a type of time planning management technique that Is used to portray the time needed to reach a specific goal. Time horizons can be shown on yearly, monthly, weekly, or even daily basis. The time horizon technique is used in this study is to conduct the progression of the research in determining the factors influencing cryptocurrency usage among private service employees. On this study, the researcher has a total duration of 5 months to complete the preliminary stages of this research starting from March 2022 until June 2022.

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Task/Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Topic Selection															
Topic Confirmation															
Consultation with the Supervisor															
Formulating Research Question and Research Objective															
Finding journals and articles related to the topic															
Coming up with the problem statement	640														
Writing Chapter 1	1														
Writing Chapter 2												V			
Writing Chapter 3						_									
Discussion on the date of												-			
presentation with the Supervisor	6	4		2	dina.			2	12.	is:	m,	ينوم	9		
First go-through of the report with										4.9					
the Supervisor VERSITI T	E	K		(A	L	N	A	L	Y	'SIA	ME	LAP	(A		
Preparing the slides for the report presentation															
Presentation of FYP 1															
Minor corrections and final submission of FYP 1															

The progress of the said study had been recorded on the Gantt Chart below to give a better understanding how the researcher uses the time allocated to conduct the study.

(Table 1) Gantt Chart portraying the timeline of PSM 1

#### 3.10 Data Analysis Method

Data analysis is the process of collecting, modeling, and analyzing data to extract insights that support decision-making (Bernardita Calzon, 2022). Despite the fact that the methods vary from one to another and the procedures often change in accordance with the method of research, every data analysis method is used to wrap up the study findings into a much comprehensive presentation of data, be it into tables, charts or anything that would suit the researcher. In this study, the researcher applied the deductive analysis and the narrative analysis techniques to extract information from the interview transcript. The method which is used in this study is selected to answer or fulfill the criterions required to accomplish the well-established research objective of the study. The research objectives of this study is:

- To study the types of cryptocurrencies that are used amongst private service employees.
- To analyze the factors that influence the usage of cryptocurrency amongst private service employees.
- To examine the challenges faced by private service employees in using cryptocurrencies.

#### 3.11 Deductive Analysis

Deductive analysis, also known as a priori analysis, often entails using the facts to evaluate a theory. It resembles a "top-down" method of data processing. This frequently entails applying pre-set codes to the data in qualitative analysis. The codes may be constructed as purely organizational tools, or they may be derived from ideas found in literature, theories, or the researcher's own established notions (Bingham, A.J., & Witkowsky, 2022). Researchers typically create categories prior to their investigation when using the deductive analysis approach. After that, they will link the data to those particular categories (Rev, 2022). Starting with a hypothesis, creating hypotheses based on that theory, then gathering and analyzing evidence to evaluate those assumptions are the deductive approach (Amy Blackstone,2012).

# اويوم سيتي بيڪنيڪل مليسيا ملاك 3.12 Summary UNIVERSITI TEKNIKAL MALAYSIA MELAKA

The third chapter of this study addresses the research methodology approach used to conduct this particular research. It serves as a guideline for the researcher to choose the suitable techniques and approaches to conduct the study in a way that the research objectives, research questions, discussion, data analysis and finding of this study aligns perfectly and was answered flawlessly. As stated earlier, the researcher will be using the qualitative method of research for this study and as such will collect the data necessary for it through interview sessions.

#### **CHAPTER 4**

#### DATA ANALYSIS

#### **4.1 Introduction**

This chapter highlights the findings derived from the research and presents a detailed analysis on the qualitative data obtained on the study which is intended to explore the various factors that are influencing the usage or opinion of cryptocurrencies among private service employees.

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### **4.1.1 Presentation of Findings**

The qualitative data that will be analyzed in this section was attained through an array of open-ended questions. These open – ended questions were based on the three research questions that were established during the preliminary stages of this study. For the purpose of data collection, five private employees who are currently employed under AXA Affin

General Insurance Berhad were approached. Throughout the interview, all the information collected from it will help to better understand their views and opinion on cryptocurrencies, especially from the eyes of a private service employee.

The study consisted of five respondents which are all quite knowledgeable on the subject of cryptocurrencies. Furthermore, one of the participants even claimed that they themselves are the owner of a type of cryptocurrency at the moment. Lastly, for security and privacy measures, the sensitive Personally Identifiable Information (PII) about the participants were not disclosed to prevent any form of breach in the confidentiality code of ethics that all researchers uphold to.

The participants were first contacted through a phone call as it was deemed to be the most suitable one at the time. As the participants all consented to take part in the interview, the sessions were conducted in face-to-face manner in which both the interviewer and the interviewee would agree upon a meeting place and have the session there. The interview sessions roughly took upon 30 minutes for each respondent involved. After the session ended, the data was then collected and analyzed using thematic analysis to be able to identify themes within the data. The data that was collected was manually transcribed into text form and this information was examined to see whether they align with the research objectives.

Interviewee's Identity	Interviewee's Age	Interviewee's Description
Respondent 1 مراجعه المراجعة المراجع	30 <b>میتي تيکنیک</b> (NIKAL MALAYSIA N	Respondent 1 is a person who rejects the idea of cryptocurrencies due to their negative effects on the wellbeing of mother nature. Respondent 1 works at AXA Affin Insurance Malaysia as a senior insurance officer and has dealt with cryptocurrencies before. This makes respondent 1 eligible as a respondent in this study.

The table below displays the demographic profile of the five participants.





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### **4.2. QUALITATIVE DATA FINDINGS**

#### **4.2.1** Types of Cryptocurrencies

The findings shows that the majority of the respondents involved in this study are very aware of Bitcoin as a key-figure in the world of cryptocurrency. Other alternatives to Bitcoin were also mentioned, albeit it being a different case for each respondent during the interview. These alternatives to Bitcoin were called SLP, Luna and Ethereum.

Bitcoin

In this study the findings indicate that Bitcoin is the most recognizable and known type of cryptocurrency among the respondents. This theme was recognized in the data set of all the participants, as they voiced their knowledge in regard to the matter at hand in a very simple manner. They all shared similar thoughts by expressing that every crypto-trader in the industry has at least heard about Bitcoin, if not studied about it during the learning process.

 Respondent 1 answered the question by mentioning Bitcoin and other several types of cryptocurrencies that completely went over the respondent's head due to the disinterest in the subject.

Respondent 1: "Maybe I have come across several of other types in the past. I don't quite remember them. For now, I'd just say Bitcoin. Just Bitcoin. Like I said, I may have come across several other types, but my disinterest in the subject left me unable to remember them."

Respondent 1 came across Bitcoin through an article he found online that is promoting cryptocurrencies as a way to make easy-money and therefore initially brand Bitcoin as a type of scam.

b. Respondent 2 answered the question by bringing up the name of two cryptocurrencies, those two being Bitcoin and Ethereum.

Respondent 2: "While my initial curiosity was piqued by Bitcoin, I also take a look at several other cryptocurrencies that may be used as a payment method through the internet. The ones I know thus far are Bitcoin and Ethereum."

Respondent 2 digressed that her initial curiosity was piqued by the idea of cryptocurrencies at first, thus prompting her to seek information regarding the topic through the internet.

c. Respondent 3 said that the first cryptocurrency that came to mind was Bitcoin, signifying how big of a cryptocurrency it is and the importance it yields as a token.

Respondent 3: "The first one that comes to mind is Bitcoin, I think. Bitcoin is a digital currency which operates free of any central control or the oversight of banks or governments. Instead, it relies on peer-to-peer software and cryptography."

Respondent 3 further added that Bitcoin is a digital currency and went on to explain what exactly makes it special.

d. Respondent 4 exclaimed that aside from the cryptocurrencies that are in the respondent's possession at the moment, *SLP*, respondent 4 is knowledgeable in the topic of Bitcoin.

Respondent 4: "Aside from *SLP*, I am also quite knowledgeable in Bitcoin, thanks to the online seminars I talked about earlier."

*SLP* is an acronym for Smooth Love Potion. Smooth Love Potion (SLP) is an ERC-20 token utilizing the Bitcoin Cash (BCH) blockchain (Beatrice Mastropietro, 2022). In general, it is a type of cryptocurrency and is well under the possession of respondent 4's e-wallet.

e. Respondent 5 replied to the question with a fairly short answer in which respondent
5 stated that at the moment only Bitcoin and Luna are the cryptocurrencies that are familiar to the person.

Respondent 5: "At the moment, I only know two of them. Those two being Bitcoin and Luna."

Respondent 5 also added that the knowledge respondent 5 obtained was all thanks to the social media and news surrounding the topic of cryptocurrency.



The findings from the study also indicated that the respondents are knowledgeable in other types of cryptocurrencies aside from Bitcoin as well. This other type of cryptocurrency in question is called Ethereum and has been making its rounds on the mouths of the respondents pretty often.

a. Respondent 2's enthusiasm about Ethereum could be reflected through the respondent's manner of speech along with the fact that the history of the cryptocurrency in question is well within respondent 2's head during the interview.

Respondent 2: "The ones I know thus far are Bitcoin and Ethereum. For Ethereum, if I am not mistaken, it was created by a Canadian, and after its launch has been the second most popular cryptocurrency aside from Bitcoin."

Respondent 2 also added that all of the things respondent 2 learned came from the internet and well-verified sources.

Respondent 3 exclaimed that Ethereum shares the same blockchain technology as
 Bitcoin, despite being different from Bitcoin in terms of functionality.

Respondent 3: " Of course, another cryptocurrency that seems to be the talk of every crypto-related discussion nowadays is Ethereum. Ethereum, unlike Bitcoin, is a decentralized development platform that uses blockchain technology".

Respondent 3 further shared respondent 3's line of thought by saying that one of factors for Ethereum's success as a cryptocurrency was due to the fact that they never wanted to rival Bitcoin in the token market.

### **SLP (Smooth Love Potion)**

The findings from the study also hinted at a peculiar case in which it being a case where the respondent is currently in hold of or in possession of a type of cryptocurrency called SLP, which is an acronym of Smooth Love Potion.

a. Respondent 4 informed the interviewer of respondent 4's current possession of a cryptocurrency, in which that cryptocurrency being SLP.

Respondent 4: "At the moment, I am currently in possession of this cryptocurrency dubbed, SLP or Smooth Love Potion in long."

Respondent 4 further added that despite the token holding a very minuscule amount of money to its name at the moment, respondent 4 believed that in the future, the aspect of price volatility would be in respondent 4's favor, which in turn would translate to amazing results to respondent 4.

Luna

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Last but not least, the findings from the study showed a new type of cryptocurrency coming from one of the respondents. This cryptocurrency caught the researcher's attention due to the tragedy that surrounds the cryptocurrency itself.

a. Despite having little to say about cryptocurrency in general, respondent 5 discerned that the cryptocurrency, Luna, was known by respondent 5 due to the news headlines and catalog articles made surrounding the topic.

Respondent 5: "While I knew about Bitcoin because it was like the most used cryptocurrency right now, I knew about Luna due to its incident during May of this year."

The incident that occurred with Luna also further strengthened respondent 5's initial expression to totally reject cryptocurrencies in general to prevent anything of the same sort to ever occur again.

throughout the session. These 4 cryptocurrencies are Bitcoin, Ethereum, SLP and Luna.

involved in the study, 4 types of cryptocurrencies were identified and talked about

4.2.2 Factors that influence the usage of cryptocurrency amongst private service employees.

This part of the study was conducted to evaluate the factors that are contributing towards the usage rate or opinion of cryptocurrency among private service employees. Most of the participants agreed that the factors they mentioned had influenced their opinion on cryptocurrency. While probing deeper into the factors that influence the usage of cryptocurrency, participants discussed significant factors such as constant reliance on the internet, alerting cases of vulnerability, competition between cryptocurrencies, market value, and considerable transaction speed.



All the participants acknowledged that they were repulsed by the idea of an internetreliant 'wallet' and would honestly just prefer to stick with the conventional paper currencies.

a. Respondent 1 wasted no time in pointing out what respondent 1 thinks is the biggest factor surrounding the stigma on the usability of cryptocurrency.

Respondent 1: "One – I would say one of the many-many challenges I would have to face would be its constant reliance on the internet. Since it's technically online money, it needs the internet in order to obtain access."

The over-reliance on an asset towards a non-tangible aspect seems to be a very major keypoint when respondent 1 talks about cryptocurrencies.

b. Respondent 2 also commented on the difficulties that the whole cryptocurrency system is currently suffering from due to its reliance on specific factors.

Respondent 2: "Other than that, decentralization can reduce points of weakness in systems where there may be too much reliance on specific factors. These weak points could lead to systemic failures, including failure to provide promised services or inefficient services due to the exhaustion of resources, periodic outages, bottlenecks, lack of sufficient incentives for good service, or corruption."

Respondent 2 further added that incapacity to provide a coherent and consistent service will be the very demise of the cryptocurrency industry if nothing was to be done.

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c. Respondent 3 also voiced respondent 3's concern on the fact that cryptocurrencies require a smooth internet connection to operate.

Respondent 3: "For something like cryptocurrency to work, you need a stable connection. They are intangible digital assets that rely on the internet. Without the internet, you might as well be no different from a penniless person out there."

Respondent 3 further added that respondent 3's disinterest in investing in cryptocurrency stems from the fact that a good internet connection is scarce in the country.

d. Respondent 5 shared the same sentiment as the other respondents in which respondent 5 admits that a slow internet connection would not have been the most ideal condition for a cryptocurrency-infested community.

Respondent 5: "Lastly, I think that cryptocurrency dealings can be slow if accompanied with a slow internet connection. While cryptocurrency transactions are known for being fast, delays can happen, and it is not an enjoyable experience."

Despite numerous articles and testimonies on the superior transaction speed of cryptocurrencies, the existence of delays that are accompanied by a slow internet connection is not good for anyone at all.

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Alerting cases of vulnerability

A majority of study participants also agreed that in order for something such as cryptocurrency to work in the first place, a bigger emphasis needs to be placed on its whole safety and security system. a. Respondent 2's main concern about cryptocurrency from the beginning has always been about the lack of security a digital wallet such as Bitcoin has.

Respondent 2: "Okay, so the first concern that I have is the safety. It always promotes itself as safe and self-sustaining, but the news however said the opposite from their claims."

Despite the media constantly telling people of its benefits and safety, the previous cyberattacks on the subject matter had proved that this system is still far away from being operational.

b. Respondent 3 puts the blame on the cryptocurrency's developers in regard to the alarmingly feeble line of defense that cryptocurrencies in general have.

Respondent 3: "If I have to imagine, the most obvious challenge that I have to face would be none other than safety issues. Despite all the hype as digital gold, cryptocurrencies have failed to demonstrate either "safe haven" or inflation-fighting properties when faced with actual market volatility or the first real bout of serious inflation in developed markets."

The hype that surrounds cryptocurrency during its peak phase should have been accommodated with a secure and trusty line of safety, respondent 3 further added.

c. Respondent 5 shared the same sentiment as the other respondents in this study as they themselves exclaimed that risks that accompany cryptocurrencies heavily outweighs default security systems that comes with it.

Respondent 5: "For me first and foremost, it's all about safety. There are just too many unique risks that you should be aware of."

By adding "first and foremost" in respondent's 5 sentence, it is clear that the very thing that respondent 5 is concerned about when talking about the possibility of

cryptocurrencies and digital wallets is the safety of it.



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An interesting factor was also brought up during the interview. The factor in question is in regard to the competition between the upcoming and present cryptocurrencies in the market.

a. Respondent 2 said along the lines that despite the existence of competition denies the possibility of a total monopoly, it is by no means with no flaws at all.

Respondent 2: " Even with the safety issue being taken care of, there is still the problem of the fierce competition between the existing blockchain projects. While this could indicate that a monopoly is impossible between cryptocurrencies, it also confuses future investors on where or on which one of thousand cryptocurrencies that they should invest in."

Respondent 2's concern about the competition present in the cryptocurrency would also upset the future investors that would initially be happy to invest in the subject matter.



Some interviewees are optimistic about investing in cryptocurrency by saying that it is a type of investment and therefore should be managed like one. This kind of mindset was heavily derived from the fact that cryptocurrencies have an astounding market value if done correctly.

a. Respondent 4 shared their thoughts on the matter that the market values of cryptocurrencies in particular should not have been branded as insignificant as 'the earliest bird gets the biggest worms'.

Respondent 4: "Well, the first factor that leads me to keep some SLP in possession is due to their market value. While it may go up and down at times, and are facing a very harsh slump, at the moment, I am hopeful that it will turn better in the future."

This predicament is not without rationale as respondent 4 told the researcher that cases where a certain cryptocurrency token gains an exponential amount of value within a short time period is not that rare in the realm of cryptography.

As the need for a better and faster quality-of-life becomes a commercialized aspect in industries and services, the fact that cryptocurrency boasts a considerable processing speed capabilities when compared to the ones used in the moment, says a lot about the

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system.

**Considerable transaction speed** 

a. Respondent 1 agreed that despite the repulsion they had against cryptocurrency, the fact stands that crypto-transactions will always beat hand-to-hand transactions in terms of speed.

Respondent 1: "That's because they learnt that from cryptocurrency, apparently using QR codes is much, much faster than using physical bank notes."

Respondent 1 however exclaimed that despite its speed and overall benefits, using it would still be out of question, especially for respondent 1.

b. Respondent 2 said that this high-speed transaction capability opens the window towards an endless stream of possibilities for overseas or domestic money transfers.

Respondent 2: "Other than that, I see Bitcoin as this easy way for someone to send money overseas in a quick manner."

Respondent 2 seems inexplicably interested in the topic of money transfer as respondent 2 hates the old system of the slow and expensive method of wiring money to someone overseas.

c. Respondent 4 seems to have the same idea in mind as respondent 2. This is because the main thing that respondent 4 seems to be describing when one talks about transaction speed is the possibility of a new international money transfer procedure. Respondent 4: "Other than that, I would say that I am in a very favorable position of supporting the usage of cryptocurrency due to its fast transaction speed."

Respondent 4 seems to be fascinated by the fact that international transfers seem to be running 24/7 for cryptocurrencies and stated that that particular feature would undeniably be helpful to a lot of people.

d. Despite the fuss and excitement however, respondent 5 had something completely opposite to say about the transaction of cryptocurrencies.

Respondent 5: "To me, I personally think that the cryptocurrency industry is suffering from three major issues. These issues being the value is too unstable, the transaction processing speed is too slow, and the transaction fees are too high."

Respondent 5 also said that these things are mere rumors that respondent 5 heard from their colleagues and therefore had no way to legitimately confirm it.

## Summary

The findings from the interview conducted showed that among the respondents which are involved in the study, there are 5 factors that are influencing the usage or opinion of cryptocurrencies among private service employees. These 5 factors are constant reliance on the internet, alerting cases of vulnerability, competition between cryptocurrencies, market value, and last but not least, considerable transaction speed.

#### 4.2.3 The challenges faced by private service employees in using cryptocurrency.

This section of the study consists of questions that were constructed to be answered by the respondents involved in the research. The respondents were asked these questions to understand the challenges faced by private service employees in using cryptocurrency. While discussing the challenges that they either faced personally or would have imagined in scenarios where they would use cryptocurrency, respondents stated that the challenges faced by private sector employees would be the asset's price fluctuations, risk of bankruptcy, absence of disposable income and limited knowledge.



**Price fluctuation** 

Price fluctuations is a recurring theme when one talks about cryptocurrency and that could not be further from the truth as the replies obtained from the research's respondents seems to reflect on that statement as well. a. Respondent 1 listed that price fluctuation is one of the challenges that respondent
1 would imagine when talking about cryptocurrency and the challenges that comes with
them.

Respondent 1: "One of the challenges, well maybe the constantly fluctuating state of its price on the market."

Respondent 1 further added that a constantly fluctuating value is a big red-flag in the world of economics and investments.

b. Respondent 2 seems to have the same line of thought as respondent 1 as the answer is a lot akin to the reply gotten from respondent 1.

Respondent 2: "The price volatility of cryptocurrencies can go really crazy at times and that is a huge red flag to me."

## UNIVERSITI TEKNIKAL MALAYSIA MELAKA

Respondent 2 further added that investing in cryptocurrency is a very 'high risk, high reward' method of getting money and therefore advises people to not dive into it without proper preparations.

c. Respondent 3 seems to have the idea that the price fluctuations and volatility of cryptocurrencies is a unique quality on its own and has been attracting daring investors from the very beginning.
Respondent 3: "It's going to be increasingly accepted by merchants and customers, and it will continue to have a volatile nature, which means prices will continue to fluctuate, as they have been doing for the past few years."

The 'high risk, high reward' nature of cryptocurrency is seen to some as a unique or quick cash-grab by its own right, said respondent 3.

d. Being an individual that actually holds cryptocurrency tokens, respondent 4 has a very favorable sentiment against the price fluctuations and volatility of cryptocurrency.

Respondent 4: "Taking advantage of the fluctuations in price can help traders earn returns, even if prices fall. That type of volatility too is the one that I am heavily invested on at the moment."

Respondent 4 also said that this feature is one of the most positively-received characteristics in the cryptocurrency community as it had helped a lot of investors in the past.

e. Respondent 5 further strengthened the idea behind respondent 1's and respondent2's answer by out-straight providing the researcher with a numerical analysis.

Respondent 5: "For example, Bitcoin is an unreliable store of value. Bitcoin's value routinely changes daily by 1-3%, which can be substantial when seen over a month or a year."

Respondent 5 stated that the data was received from Coinmarketcap.com which is a reliable and trusty source of cryptocurrency – related news and data.



Despite the booming popularity of cryptocurrency due to its really high yield rates however, some unfortunate investors received the short end of the stick which ultimately leads to a series of events that precedes the inevitable bankruptcy. This sad twist of fate is spoken about by some respondents of the study.

a. Respondent 1 said that the unfortunate event of bankruptcy occurred due to investing into cryptocurrency at the wrong time.

Respondent 1: "Not to mention that some of them even suffered severe losses just like bankruptcy due to investing at the wrong time."

Seeing that the price fluctuations of cryptocurrency is heavily dictated by supply and demand, respondent 1's answer to the question given is not out of line at all.

b. Respondent 5 replied to the question given by giving a recap of a real-life incident concerning cryptocurrency.

Respondent 5: "It's estimated that the Luna crash ended up taking the price of Bitcoin down and causing an estimated loss of \$300 billion in value across the entire cryptocurrency space. Corporate Crypto leaders Voyager and Celsius filed for bankruptcy."

Respondent 5 seems to agree that risk of bankruptcy is a huge challenge that one would face when thinking about investing in cryptocurrency.

## Lack of legal regulation

Despite being generally accepted in the developed countries around the world, the lack of rules and regulations when one talks about cryptocurrencies has become a seriously pressing matter in the eyes of this study's respondents.

Respondent 2 stated that by being decentralized, cryptocurrencies such as Bitcoin
 do not enjoy a standard legal protection a conventional currency would have.

Respondent 2: "The first thing that I could think of is the potential legal risks that I will be encountering when I try to use cryptocurrencies. Unlike financial instruments, cryptocurrencies are not regulated products and do not benefit from the standard legal protection afforded traded financial instruments."

This further added to the concerns on whether or not cryptocurrency should be accepted as a unit of currency as anyone that invests in it is just a bad day away from losing all of their belongings with nothing to insure it.

b. Respondent 3 stated that the lack of regulation that comes with cryptocurrency is due to the mixed receptions cryptocurrency received in some parts of the world.

UNIVERSITI TEKNIKAL MALAYSIA MELAKA Respondent 3: "I would also like to see how would our leaders actually react to a change like this if cryptocurrency is indeed unavoidable in the future because as you already know by now, different countries have different cryptocurrency laws and regulations."

This difference in terms of laws and regulations when cryptocurrencies are on the table will lead to an awful lot of problems if it is not settled in a swift manner, respondent 3 further added.

c. Even with such an optimistic view of cryptocurrencies in general, Respondent 4 could not help but to agree that the lack of rules that comes with cryptocurrency is a major threat to investors, especially in Malaysia. With that said however, respondent 4 is not that hopeful about it.

Respondent 4: "With that said, I would not be so hopeful that the regulation efforts can be done swiftly. One of the biggest challenges for regulators is to classify existing cryptocurrencies correctly. And this will take a very long time if not forever to complete."

Respondent 4 understood that constructing an adequate amount of rules and regulations for a new set of currency, more so an online one to boot, would take a lot of time and doesn't blame anyone for it.

d. Respondent 5 however complied to the question by saying that in some countries, the rules, and regulations surrounding cryptocurrencies do exist and punishments are also dished out fairly to those who breaches it.

Respondent 5: "Do Kwon and five other people are currently accused of violating local market laws. Officials in South Korea seek to revoke Kwon's passport as they believe he's currently residing in Singapore. In theory, if this legal action goes through, Kwon will have to return to South Korea within 14 days of receiving the notice of the revocation."

This recollection of *Do Kwon* is a part of the repercussions that comes from the *Luna crash* incident which have been the main topic of interest throughout respondent 5's interview.

Do Kwon is the South Korean co-founder and CEO of Singapore-based Terraform Labs, the parent company of crashed stablecoin TerraUSD and cryptocurrency Luna. Kwon cofounded Terra to use blockchain technology to develop a more efficient payment system (Lawrence Wintermeyer, 2022).

The Luna crash was an event where the overall crypto market was experiencing a major crash, which led to the price of LUNA crashing (Sakshat Kolhatkar, 2022).



in the 21<sup>st</sup> century.

a. Respondent 2 stated that in an event where respondent 2 is required to utilize cryptocurrencies, the limited amount of knowledge respondent 2 would have at the moment would prove itself to be a big weakness and therefore thinks of ways to overcome it.

Respondent 2: "The thing that I am aiming here is first and foremost knowledge as investing into something I clearly have no idea about is practically worthless. Every paper, study and journals that could help me gain even a crumb of information in regard to the market of cryptocurrencies will definitely be helpful to me."

From respondent 2's statement, it is clear as day that limited or even no knowledge about cryptocurrencies is a big challenge when one thinks about using or investing in it.

b. Respondent 3 further supported this notion of the importance of knowledge by saying that the act of reading or obtaining knowledge about cryptocurrencies is an act of preparation for the future.

Respondent 3: "Since several cryptocurrencies have been linked with terrorist attacks, governments would want to regulate how cryptocurrencies work. Therefore, by researching beforehand, and thus, enriching oneself with knowledge, I'd say that I am preparing for the future in that way.

Despite the obvious gap in knowledge among Malaysians in the realm of cryptocurrency, people such as respondents 2 and 3 paid no attention to the norm and decided to enrich themselves with knowledge when time comes for it. c. Respondent 4 said that the act of familiarizing oneself with cryptocurrencies will be a long and difficult process that respondent 4 is willing to overcome if that translates to a better future.

Respondent 4: "The first challenge I think would be to familiarize myself with using them. We have been so used to our conventional money being in our wallet, therefore maybe going cashless may strike off as odd at first. For this, I would just have to familiarize myself before actually using them in the real world."

Respondent 4 stated that the easiest way to do this is to imitate or learn from the people that are already using cryptocurrencies in the developed nations such as the US as an example,

d. Respondent 5 agreed on the notion that cryptocurrencies have a fairly low amount of helpful informative handouts due to it being a fairly new medium of transaction.

Respondent 5: "Cryptocurrency also has a very limited history as cryptocurrency is **UNIVERSITI TEKNIKAL MALAYSIA MELAKA** without a doubt a relatively new concept, and many popular coins are less than a decade old. This presents a bit of a risk because we can't look at historical data to see how crypto may behave in a major event, such as a war or a 2008-style market crash."

Respondent 5 said that even with the numbers and figures that we have today as an example, a credible graph of the marketplace could not be easily graphed due to the lack of overall data.

## Summary

The findings from the interview conducted showed that among the respondents which are involved in the study, there are 4 challenges that would be faced by private service employees when one thinks about using cryptocurrencies. These 4 challenges are then concluded to be price fluctuation, risk of bankruptcy, lack of legal regulation and finally, limited knowledge.

4.3 Summary

This chapter has presented the findings of the data that was collected during the data collection process. The three research questions were answered by the participants that fits the profile of a private service employee and adjusted themselves well in the criteria that the researcher set during the earlier chapters of this study. The main themes discussed by the participants have been outlined and have been categorized as Bitcoin, Ethereum, SLP, Luna, constant reliance on the internet, alerting cases of vulnerability, competition between cryptocurrencies, market value, considerable transaction speed, price fluctuation, risk of bankruptcy, lack of legal regulation and limited knowledge. These have then been categorized as types of cryptocurrencies, factors that influence a private service employee's opinion or usage on cryptocurrencies, and the challenges a private service employee would face when using cryptocurrency.



All the participants shared views that suggest that the act of using cryptocurrencies in our daily life is worth a lot more trouble when compared to the benefits it yields in the long or short run. Despite a few sparks of hope and optimism for the future of cryptocurrencies, as it stands at the moment, the act of fully utilizing the currency as a medium of payment is not something that the respondents could visualize in their own country. Additionally, participants also discussed the factors that contribute towards their line of thought. Lastly participants gave a lot of solutions and backup plans on how one overcome the challenges that come along with using cryptocurrencies. These themes from the data will be further discussed in Chapter Five.



## **CHAPTER 5**

## CONCLUSION AND RECOMMENDATIONS

This chapter will provide discussion on the findings of chapter four. Furthermore, this chapter will also consider the recommendations that can address the challenges faced by private service employees that wish to use cryptocurrency. Lastly, the limitations that were identified in the study will also be reviewed, as that can be used to identify areas for further research.

## **UNIVERSITI TEKNIKAL MALAYSIA MELAKA**

## 5.1 Summary of the Finding

This study was conducted to identify the factors that would influence a private service employee's opinion or usage on cryptocurrencies. The main research questions were built to discover the opinions of a private service employee regarding cryptocurrencies, especially in the country of Malaysia, which would then set as a precedent to answer on why does the average civilian would have little to no idea about cryptocurrencies despite its booming popularity and success in the developed nations of the world. Through an inductive approach where in-depth interview was used to collect data, the themes were then identified based on the information collected from a total of five participants which agreed to be included in the study.

## **Types of Cryptocurrencies**

## Bitcoin

Bitcoin was recognized as one of the earliest cryptocurrencies ever developed and has then cemented itself as a prominent cryptocurrency on the market.

"Perhaps, it being one of the earliest cryptocurrencies to exist did help its cause, because when cryptocurrencies got introduced, Bitcoin immediately came out on top. People immediately recognize the brand itself." – Respondent 1

All the respondents in the study shared similar thoughts regarding Bitcoin in general, by stating that the token sets an example for the other cryptocurrency to strive for in the world of cryptography, especially for the new ones.

## Ethereum

Some respondents drew their attention to Ethereum and began to share what exactly makes it a decent cryptocurrency on the market, even rivaling Bitcoin at one point.

"Now for Ethereum, I could say that its charm is the fact that it was never built to compete with Bitcoin, however, was built to enable a software platform that not only supports cryptocurrencies, but any kind of decentralized application that can run without the need of a third party, thus giving people more control over their data." – Respondent 2

According to an article written by Mohil Maheshkumar Patel, Sudeep Tanwar, Rajesh Gupta, & Neeraj Kumar (2020), tokens such as Ethereum, Ripple, Monero, Stellar, Litecoin, and Dash are some of the famous cryptocurrencies which are heavily used along with the Bitcoin. With that said however, some major studies have failed to identify the reason on how exactly Ethereum succeeded. Throughout this research, however, the respondents of this study have all shared their own views and opinions on what exactly makes Ethereum unique on its own and therefore deserving of a spot next to Bitcoin.

### **SLP (Smooth Love Potion)**

SLP was a unique cryptocurrency that was extracted from the interview with a participant of this study. The participant even claimed to have been a proud owner of these SLP tokens and have then been investing it into the respondent's own personal e-wallet.

"At the moment, I am currently in possession of this cryptocurrency dubbed, SLP or Smooth Love Potion. Aside from SLP, I am also quite knowledgeable in Bitcoin, thanks to the online seminars I talk about earlier." – Respondent 4

Just like Bitcoin, a token of SLP is also called an altcoin. These altcoins use similar cryptography technology but employ different algorithmic designs. Many of these altcoins were invented for different purposes or to address the pain points of the Bitcoin network, such as the high usage of energy caused by its proof of work (PoW) consensus algorithm or the supply limit of 21 million coins, among others (David LEE Kuo Chuen, Li Guo, and Yu Wang, 2017).

#### Luna

Just like SLP, Luna is also a relatively new cryptocurrency in the market. However, unlike the others, Luna suffered from a huge crash in the past which contributed to its own end of service in 2022. "At the moment, I only know two of them. Those two being Bitcoin and Luna. While I knew about Bitcoin because it was like the most used cryptocurrency right now, I knew about Luna due to its incident during May of this year (2022)." - Respondent 5

An article by Pascale Davies (2022) stated that Terra's UST and LUNA cryptocurrencies lost nearly \$45 billion (€44 billion) in value within 72 hours in May. This would then spell an immediate end towards Luna's service as a cryptocurrency on the market.



Respondents expressed that the overall reliance and dependence of cryptocurrency on the internet could be a major turn-off when one talks about primary daily usage as internet connections, at least in this country, is a luxury on its own.

"Back when cryptocurrency was pretty relevant in the market, the internet wasn't a necessity in Malaysia. Hence the difficulty to gain internet access was much, much harder." – Respondent 1

This statement is further supported by the fact that Malaysia is a third world-country that is still trying to get its ropes around a nation-wide internet coverage plan a success.

"Well, first and foremost, the internet connection here is awful. Getting a reception in rural areas are downright impossible and that is not even touching about the speed of the connection. For something like cryptocurrency to work, you need a stable connection." – Respondent 3

Thus, in this study, based on the data collected from the respondents, it can be concluded that the constant need for an internet collection is indeed one of the factors that private service employees seem to be weighing in when talking about cryptocurrencies.

# Alerting cases of vulnerability NIKAL MALAYSIA MELAKA

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While cryptocurrency developers and users all vouch for the safety and security of the tokens that they use, the findings of this study show that it is still lacking.

"This whole idea of an online currency is vulnerable to cyber-attacks no matter the security measure and I am just not someone who can deal with that. Even recently, there's this cyber-attack case where the Binance exchange, a hub for cryptocurrencies in the US was hacked for \$570 million in October 2022." – Respondent 2

This theme of safety and security would then be a recurring theme throughout the interview sessions as other respondents see this as an immediate threat to the asset group.

"If the whole security and safety aspects of cryptocurrency is being ignored altogether, then the future where cryptocurrencies would be accepted worldwide would be no more than a mere dream." – Respondent 3

Despite the claims that comes from an academic study from Alexey Mikhaylov (2020) that states that the exclusive advantage of cryptocurrency in terms of its use in financial markets as an asset and a tool for capital redistribution is the use of blockchain technologies in the system, which will increase the efficiency and safety of investments seems to have a shed of rationale on its own, the lingering dread and concern about the safety and security of cryptocurrencies will always be an issue of debate until further actions are taken to counter it.

## **Competition between cryptocurrencies**

In a cluttered market where cryptocurrencies pop left and right from time to time, the question about future competition regarding these tokens seems to be brewing up in the minds of the participants of the study.

"Competition is fierce among thousands of blockchain projects, and many projects are no more than scams. Only a small percentage of cryptocurrency projects will ultimately flourish." - Respondent 2

The nature of supply and demand would often drive some cryptocurrencies token out of relevance which would then drastically decrease a token's market value. This conundrum would then severely impact the investment value of an investor, making the investor possibly losing money in the process.

## Market value

One respondent exclaimed in his interview that the market values of cryptocurrencies are usually very volatile and would usually start with a very low initial value. "Bitcoin has been one of the best-performing assets of the last 13 years. When it debuted in 2009, Bitcoin essentially had no value, but in the following years, it would rise to a fraction of a penny, and then eventually to tens of thousands of dollars." – Respondent 4

Respondent 4 would then highlight the fact that just as cryptocurrencies are capable of decreasing its own price, it could potentially increase its own value in the long run. These specialties make them excellent trading instruments.

"However, the skyrocketing value of cryptocurrencies has made them popular as trading instruments. To a limited extent, they are also used for cross-border transfers." – Respondent 4

The same case could not have been said for every single cryptocurrency on the market, however, as there now exist more than 1,000 cryptocurrencies with different degrees of liquidity and a possibly different behavior, with different implications for market efficiency (Guglielmo Maria Caporale & Alex Plastun, 2019).

## **Considerable transaction speed**

A theme that was also discovered in this study is the talk about the transaction speed of cryptocurrencies when compared to the conventional currency that people use nowadays. One respondent in particular believed that the transaction speed that most cryptocurrencies operate on today is not fast enough to keep up with the number of procedures that are happening worldwide.

"The slow processing speed of digital currency transactions is a significant roadblock to scalability. And Bitcoin is slower than others." – Respondent 5

Two respondents however argued that in terms of international money transfers, cryptocurrencies are second to none in terms of speed. Another theme that was found in the study was the question on whether or not cryptocurrencies could be used as a basis for a swift and convenient way of international and domestic money transfer in the future.

"In most overseas money transfers, the process would usually take time, will be supervised by banks and federal agencies, and may even be rejected sometimes if a person is unlucky. Well, by Bitcoin however, things have changed. Using blockchain technology, Bitcoin allows users to make transparent peer-to-peer transactions." – Respondent 2 "A wire transfer usually takes at least 24 hours. Stock trades settle in three days. But one of the advantages of cryptocurrency transactions is that they can be completed in a matter of minutes." – Respondent 4

The research by David LEE Kuo Chuen, Li Guo, and Yu Wang (2017) maintains the finding of this study as that research also indicated that decentralization, a core component in the system that runs cryptocurrencies basically allows the blockchain technology to have increased capacity, better security, and faster settlement.

The Challenges Faced by Private Service Employees in Using Cryptocurrency

#### **Price fluctuation**

## JNIVERSITI TEKNIKAL MALAYSIA MELAKA

A study by Izwan Amsyar, Ethan Christopher, Arusyi Dithi, Amar Najiv Khan & Sabda Maulana had acknowledged the pricing of cryptocurrency tokens does indeed fluctuate from time to time. These fluctuations also means that a token could be absurdly high to abysmally low prices in matter of hours or even minutes. The research also stated that the feature in particular attracts daring investors and traders due to the high returns one could extract from it. (Izwan Amsyar, Ethan Christopher, Arusyi Dithi, Amar Najiv Khan & Sabda Maulana, 2020).

In this research the respondents have a lot to share in terms of challenges in the realm of cryptocurrencies. The respondents also highlighted that by ensuring that these challenges are kept in check, it could help increase the overall likeliness of the public to use cryptocurrency in their daily life.

"I think it – the only reason it fluctuates is because of the amount of people investing in the market. The value goes up when there are lesser people, the value goes down when there are more people. Hence, you see more people suffering losses than more people becoming successful in cryptocurrency." – Respondent 1

"While the price of a cryptocurrency can spike to dizzying highs, they can also crash to terrifying lows just as quickly. So, if someone is looking to make stable returns, cryptocurrency might not be the best bet" – Respondent 2

## **Risk of bankruptcy**

Respondents highlighted that one of the most impending fears when they talk about cryptocurrencies and the challenges that comes from using or investing in it is the sole fact that bankruptcy could literally occur if things were not handled smoothly. The respondents of the study also shared views such as some real-life cases of bankruptcy to further prove a point.

"People can become filthy rich from investing in Bitcoin, but they can also become dead poor due to bankruptcy." – Respondent 1

"Many people even lost their life savings and suffered financial hardships due to the Luna crypto crash. If you do a quick search online, you'll find many of these terrible stories." – Respondent 5

## Lack of legal regulation

Some respondents highlighted that the novel nature of cryptocurrencies due to it being new also suggests that the law and regulation surrounding the asset group is still in its early stages. Participants of the study also shared views such as the different regulations cryptocurrencies experience in different parts of the globe which would then be a huge challenge for future users and investors due to the ambiguity of the asset.

"This leads to convoluted legal risks and inserts uncertainty, which can meaningfully influence both invest ability and risk management for these digital assets" – Respondent "While some nations, like the United States and Australia, are supportive of cryptocurrencies, others, like China and Vietnam, have outlawed the use of Bitcoin for payment. Upon learning this fact, I really hoped that our respectful leaders would be somewhat indifferent if not wholeheartedly support the usage of cryptocurrencies within the borders of Malaysia." – Respondent 3

## Limited knowledge

The participants of the study also noted that there is a wide array of questions that stems from cryptocurrencies due to it being a relatively new thing in Malaysia. They stated that the most grueling challenge that would be faced by private service employees in particular is the lack of knowledge surrounding the topic. According to a study by Peter D. DeVries (2016), the conditions for Bitcoin's widespread adoption could be described as a "fire triangle", where fire needs fuel, oxygen, and heat to exist. This analogy seems to be factoring around the fact that cryptocurrencies need user acceptance, vendor acceptance, and innovation to ignite, or in other words to succeed. Therefore, without the prior knowledge or a basic amount of understanding towards the asset group, it will be hard for anyone to even be familiar with it.

"That is not factoring in the increasing cases of cryptocurrency scams and phishing schemes that will be rampant due to the overall lack of knowledge" – Respondent 2

## 5.2 Limitations of the Study

The study was conducted based on thematic analysis and in-depth interviews with five respondents that agreed to participate in the study. As the findings were based on the perspective of private service employees who are working at the same company, further studies may attempt a comparison study to research the similarities and disparities on the factors influencing other people's usage of cryptocurrencies such as government workers or university students in Malaysia. By conducting this study, the researcher has established a benchmark for future research in the same field of study.



Invest more in data-encryption technology that complements cryptocurrencies:

R&D (Research & Development) in the ways of data-protection and security would be the most effective way to ensure that future cyber-attacks on e-wallets or cryptocurrency servers would not happen again. By learning from past mistakes, cryptocurrency developers could invest more into the overall security of their asset and make guarantees towards future investors and traders.

This would then change the public perception of cryptocurrency being an unreliable currency in terms of safety.

## Be more informed on the recent news and trend:

By becoming much more aware of the latest boom in the industry, which to say is cryptocurrency, the shocking sentiment most would had towards the asset would then turn into specks of anticipation or even excitement. It will also not hurt to read or even study about the things that are happening outside of the country to gain ideas for innovation which would then benefit the nation greatly in return.

### **Urge the government for a better internet-coverage plan:**

With enough voices from the public, government officials would then be more inclined to put up more internet substations throughout the rural areas of the country which would then serve the community greatly in terms of communication, education, and overall quality of life. Remands such as a slow or even non-existent internet connection would then dissipate and the basic requirements for a cryptocurrency transaction to occur would then be fulfilled.

## **5.4 Conclusion**

This study revealed that the majority of private sector employees are still reluctant on the idea of cryptocurrencies despite being one of if not the earliest Malaysians to be exposed to the idea of such currency. It was also revealed that there are a lot of factors that influence their way of thinking, as well as an abundance of challenges to overcome as well. This study has also fulfilled the academic and practical theoretical perspectives. Future studies can also be attempted by including other demographics of the Malaysian citizen group such as government workers or university students to further enrich the knowledge regarding this subject. After all, the data that was used in this study was only collected from private service employees who work in the same company in the country of Malaysia, which further suggests that future research could be conducted to fill in the gap that this study was not able to. Lastly, a qualitative study on the factors that influence the usage of cryptocurrency among private service employees can also be conducted.

This study provides various insights on the factors that influence the usage of cryptocurrency among private service employees, which also include the types of cryptocurrencies that the average private service employee would know, to the challenges that would be faced by a private service employee that decides to use cryptocurrency.

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