

THE PERCEPTION OF MALAYSIAN AUDITORS ON  
BLOCKCHAIN

BY

ROUGUIATOU BALDE

A dissertation submitted in fulfilment of the requirement for  
the degree of Master of Science (Accounting)

Kulliyyah of Economics and Management Sciences  
International Islamic University Malaysia

AUGUST 2020

## **ABSTRACT**

Blockchain technology was initially created to record Bitcoin (digital currency) transactions, but gradually its functions have expanded. As more businesses start to use digital currency, auditors may need to consider auditing transactions on blockchain should their clients start to use this technology. Blockchain can enable auditors to keep an audit trail. In addition, audit evidence for the occurrence of a transaction can be established by blockchain technology. However, there has been a dearth of studies on the extent of Malaysian auditors' awareness on blockchain. Therefore, this study aims to achieve the following objectives which are to: (i) determine the extent of Malaysian auditors' awareness on blockchain, (ii) explore the Malaysian auditors' perception regarding the usefulness of blockchain, (iii) investigate the Malaysian auditors' perception regarding challenges of auditing transaction on a blockchain system, (iv) tests whether level of knowledge is associated with perception of auditors on blockchain; and if the perception in turn influences intention to use blockchain technology. The study used the theory of Technology Acceptance Model (TAM) as framework. The sample of this study was auditors working in audit firms throughout Malaysia. Overall, sixty-five auditors participated in the questionnaire survey, which was used to collect data for this study. Descriptive analyses, correlation and regression analysis were carried out to analyse the data. The findings of the study indicate that auditors have low awareness on blockchain. Auditors perceive blockchain as moderately useful. In addition, the results revealed that auditors are more concerned on the challenges that they may face, when auditing transactions on the blockchain system. Furthermore, it was revealed that Level of Knowledge has an impact on auditors Perceived Usefulness of blockchain. Whereas, Perceived Ease of Use and Perceived Risk influence Intention to Use blockchain. The findings of this study will assist audit firms in Malaysia to initiate workshops and trainings on blockchain in order to enhance their auditors' awareness on the technology.

## خلاصة البحث

في البداية لتسجيل معاملات البيتكوين (العملة الرقمية)، ولكن وظائفها البلوكشين تم إنشاء تقنية توسعت تدريجياً. مع بدء المزيد من الشركات في استخدام العملة الرقمية، قد يحتاج المدققون إلى إذا بدأ عملائهم في استخدام هذه التكنولوجيا. ويمكن البلوكشين النظر في مراجعة المعاملات على تمكين مراجعي الحسابات من الاحتفاظ بتعقب التدقيق. بالإضافة إلى ذلك، لسلسلة البلوكشين ومع ذلك، كانت هناك البلوكشين. يمكن تأسيس أدلة مراجعة عن حدوث معاملة بواسطة تقنية لذلك، فإن البلوكشين. ندرة في الدراسات حول مدى وعي مراجعي الحسابات الماليين على البلوكشين. الهدف من هذه الدراسة هو استكشاف تصور مراجعي الحسابات الماليين على كإطار نظري لها. وكانت عينة (TAM) واستخدمت الدراسة نظرية نموذج قبول التكنولوجيا هذه الدراسة تتكون من مراجعي الحسابات العاملين في شركات مراجعة الحسابات في جميع أنحاء ماليزيا. وشارك في الاستبيان، إجمالاً، خمسة وستون مراجعاً للحسابات، واستُخدم هذا الاستبيان لجمع البيانات اللازمة لهذه الدراسة. وقد أجري تحليل إحصائي أولي لتحليل البيانات. تشير نتائج الدراسة إلى أن مراجعي الحسابات الماليين لديهم وعي منخفض بسلسلة البلوكشين. ونظر مراجعو الحسابات الماليين إلى البلوكشين على أنها مفيدة بشكل معتدل. بالإضافة إلى ذلك، كشفت النتائج أن مراجعي الحسابات الماليين أكثر قلقاً بشأن التحديات التي قد تواجههم، عند مراجعة المعاملات على نظام البلوكشين. علاوة على ذلك، تم الكشف عن أن مستوى المعرفة له تأثير على الفائدة المتصورة وسهولة الاستخدام المتصورة لسلسلة البلوكشين. في حين أن سهولة البلوكشين. ستساعد نتائج هذه الاستخدام المتصورة والمخاطر المتصورة تؤثر على نية استخدام البلوكشين من أجل تعزيز الدراسة شركات التدقيق في ماليزيا على بدء ورش عمل وتدريب على وعي مراجعي الحسابات بهذه التكنولوجيا.

## APPROVAL PAGE

I certify that I have supervised and read this study and that in my opinion, it conforms to acceptable standards of scholarly presentation and it fully adequate, in scope and quality, as a thesis for the degree of Master of Science (Accounting).

.....  
Siti Alawiah Bt. Siraj  
Supervisor

.....  
Fatima Bt Abdul Hamid  
Co-Supervisor

I certify that I have read this this study and that in my opinion, it conforms to acceptable standards of scholarly presentation and it fully adequate, in scope and quality, as a dissertation for the degree of Master of Science (Accounting).

.....  
Hawa Ahmad Abdul Mutalib  
Examiner

.....  
Maslina Ahmad  
Examiner

This dissertation was submitted to the Department of Accounting and is accepted as a fulfilment of the requirement for the degree of Master of Science (Accounting).

.....  
Zamzulaila Bt Zakaria  
Head, Department of Accounting

This dissertation was submitted to the Kulliyah of Economics and Management Sciences and is accepted as a fulfilment of the requirement for the degree of Master of Science (Accounting).

.....  
Hassanuddeen Abd. Aziz  
Dean, Kulliyah of Economics and  
Management Sciences

## DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

Rouguiatou Balde

Signature .....

Date.....

**INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA**

**DECLARATION OF COPYRIGHT AND AFFIRMATION  
OF FAIR USE OF UNPUBLISHED RESEARCH**

**THE PERCEPTION OF MALAYSIAN AUDITORS ON BLOCKCHAIN**

I declare that the copyright holder of this dissertation is jointly owned by the student and IIUM.

Copyright © 2020 by Rouguiatou Balde and International Islamic University Malaysia. All rights reserved.

No part of this unpublished research may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without prior written permission of the copyright holder except as provided below:

1. Any material contained in or derived from this unpublished research may only be used by others in their writing with due acknowledgement.
2. IIUM or its library will have the right to make and transmit copies (print or electronic) for institutional and academic purposes.
3. The IIUM library will have the right to make, store in a retrieval system and supply copies of this unpublished research if requested by other universities and research libraries.

By signing this form, I acknowledged that I have read and understood the IIUM Intellectual Property Right and Commercialization policy.

Affirmed by Rouguiatou Balde

.....  
Signature

.....  
Date

## **DEDICATION**

*I dedicate this work to my beloved mother Maimouna Balde for all her sacrifices and tireless financial support for me to become an educated person.*

## **ACKNOWLEDGEMENTS**

All praise is due to Allah (S.W.T), the most merciful for giving me the health, courage, and strength for the completion of this dissertation.

I am grateful to my parents Abdoulaye Balde and Maimouna Balde for supporting me both financially and encouragements throughout my study.

All appreciation goes to my supervisors, Asst. Prof. Dr Siti Alawiah Binti Siraj and Assoc. Prof. Dr Fatima Binti Abdul Hamid for their endless support and guidance through the completion of my dissertation.

I sincerely acknowledge Dr Hamisu Salisu for all his tireless support and guidance. Finally, I thank Aissatou Souleymane Diallo, all my family and friends who supported me throughout my master's programme.



# TABLE OF CONTENTS

Abstract.....	iii
خلاصة البحث.....	iv
Approval Page .....	v
Declaration .....	vi
Copyright Page.....	vii
Dedication .....	viii
Acknowledgements .....	ix
List of Tables.....	xiv
List of Figures .....	xvi
List of Abbreviations.....	xvii
<b>CHAPTER ONE: INTRODUCTION .....</b>	<b>1</b>
1.1 Introduction .....	1
1.2 Background of the Study.....	1
1.3 Problem Statement .....	3
1.4 Research Objectives and Research Questions.....	6
1.5 Motivation of the Study.....	7
1.6 Significance of the Study .....	8
1.7 Organization of the Dissertation.....	10
1.8 Chapter Summary.....	11
<b>CHAPTER TWO: LITERATURE REVIEW .....</b>	<b>12</b>
2.1 Introduction .....	12
2.2 Overview of Blockchain.....	12
2.2.1 Transaction Process in Blockchain .....	13
2.2.2 Blockchain Features .....	15
2.2.3 Advantages and Challenges of Blockchain.....	16
2.2.3.1 Advantages of Blockchain.....	16

2.2.3.2 Challenges of Blockchain.....	18
2.3 Research on Blockchain.....	19
2.3.1 Review Studies on Blockchain.....	19
2.3.2 Blockchain Application in the Financial and Non-Financial Sector.....	20
2.3.3 Blockchain in Accounting.....	25
2.4 Audit and Information Technology.....	26
2.4.1 Impact and Use of IT in Audit and Accounting.....	26
2.4.2 Effect of IT on Internal and External Auditing Process.....	28
2.5 Technology Acceptance Model.....	32
2.6 Gap in the Literature.....	36
2.7 Chapter Summary.....	37
<b>CHAPTER THREE: THEORETICAL FRAMEWORK.....</b>	<b>38</b>
3.1 Introduction.....	38
3.2 Technology Acceptance Model.....	38
3.3 Technology Acceptance Model and Hypothesis Development.....	41
3.3.1 Level of Knowledge (LK).....	43
3.3.2 Perceived Risk (PR).....	44
3.3.3 Perceived Usefulness (PU).....	46
3.3.4 Perceived Ease of Use (PEoU).....	47
3.4 Chapter Summary.....	48
<b>CHAPTER FOUR: METHODOLOGY.....</b>	<b>49</b>
4.1 Introduction.....	49
4.2 Research Approaches.....	49
4.3 Research Design.....	50
4.3.1 Population of Study.....	51
4.3.2 Sample Selection.....	51
4.4 Questionnaire Survey.....	53
4.4.1 Research Instrument.....	54
4.4.2 Pilot Test.....	59
4.4.3 Questionnaire Distribution.....	60
4.5 Data Analysis Procedures and Statistical Techniques.....	62

4.5.1 Scoring on Level on Knowledge .....	62
4.5.2 Descriptive Statistics .....	63
4.5.3 Reliability Analysis .....	64
4.5.4 Factor Analysis.....	65
4.5.5 Correlation.....	65
4.5.6 Regression Analysis .....	67
4.6 Chapter Summary .....	69
<b>CHAPTER FIVE: DATA ANALYSIS AND DISCUSSION ON FINDINGS .....</b>	<b>70</b>
5.1 Introduction .....	70
5.2 Responses Rate.....	70
5.3 Demographic Analysis .....	71
5.4 Preliminary Tests.....	74
5.4.1 Reliability Test for All Constructs .....	74
5.4.2 Normality Tests of Perceived Usefulness, Perceived Ease of Use, Perceived Risk and Intention to Use .....	75
5.4.3 Correlation.....	76
5.4.4 Factor Analysis.....	77
5.5 Descriptive Analysis.....	79
5.5.1 Research Objective One on the Awareness on Blockchain .....	79
5.5.2 Research Objective Two on Malaysian Auditors' Perception on the Usefulness of Blockchain.....	80
5.5.3 Research Objective Three on Malaysian Auditors' Perception regarding Challenges of Auditing Transactions on a Blockchain System. ....	82
5.5.4 Descriptive Analysis on Ease of Use of Blockchain and Intention to Use Blockchain.....	83
5.6 Regression Analysis to Answer Research Objective Four .....	86
5.6.1 Impact of Level of Knowledge on Perceived Usefulness of Blockchain...87	
5.6.2 Impact of Level of Knowledge on Perceived Ease of Use.....88	
5.6.3 Impact of Level of Knowledge on Perceived Risk.....88	
5.6.4 Impact of Level of Knowledge on the Combined Variable of Perceived Usefulness and Perceived Ease of Use.....89	
5.6.5 Impact of Perceived Usefulness, Perceived Ease of Use and Perceived Risk on Intention to Use .....	90
5.6.6 Impact of Perceived Usefulness & Perceived Ease of Use and Perceived Risk on Intention to Use .....	92

5.7 Discussion on Findings .....	93
5.8 Chapter Summary.....	94
<b>CHAPTER SIX: CONCLUSION .....</b>	<b>95</b>
6.1 Introduction .....	95
6.2 Summary of Findings .....	95
6.3 Implication of the Study Based on Specific Findings .....	97
6.4 Limitations and Recommendation for Further Research .....	99
6.5 Chapter Summary.....	101
<b>BIBLIOGRAPHY .....</b>	<b>102</b>
<b>APPENDIX A: QUESTIONNAIRES.....</b>	<b>110</b>

## LIST OF TABLES

Table 2.1 Summary of key studies on blockchain .....	25
Table 4.1 Examples of general questions irrelevant to the context of auditors .....	55
Table 4.2 List of questions adopted from Kern’s study .....	55
Table 4.3 List of added questions .....	56
Table 5.1 Response rate of distributed questionnaires.....	71
Table 5.2: Gender.....	71
Table 5.3: Highest level of education .....	72
Table 5.4: Work experience as an auditor.....	72
Table 5.5: Audit firms of employment .....	73
Table 5.6: Sectors of specialization in auditing .....	73
Table 5.7: Reliability test of all constructs .....	74
Table 5.8: Reliability Analysis for each variable.....	75
Table 5.9: Normality tests.....	75
Table 5.10: Correlation results.....	77
Table 5.11: KMO and Bartlett’s Test of Sphericity.....	78
Table 5.12: Results of factor analysis .....	79
Table 5.13: Awareness of auditors on blockchain .....	80
Table 5.14: Usefulness of blockchain .....	82
Table 5.15: Challenges of blockchain.....	83
Table 5.16: Ease of Use of blockchain .....	84
Table 5.17: Intention to Use blockchain .....	85
Table 5.18: T-test analysis .....	85

Table 5.19 Determinant coefficient of Perceived Usefulness, Perceived Ease of Use, Perceived Risk and Perceived Usefulness & Perceived Ease of Use.....	87
Table 5.20: Regression Analysis results on Intention to Use .....	90
Table 5.21: Determinant of coefficient of intention to use .....	92
Table 5. 22: Summary of hypotheses testing results.....	93

## LIST OF FIGURES

Figure 2. 1 Blockchain Transaction Process .....	14
Figure 3.1 Technology Acceptance Model (TAM) (Davis, 1989) .....	41
Figure 3.2 Modified TAM-Blockchain Perception Model .....	42

## LIST OF ABBREVIATIONS

IU	Intention to use
MIA	Malaysia Institute of Accountants
PEoU	Perceived Ease of Use
PU	Perceived Usefulness
PR	Perceived Risk
RO1	Research Objective 1
RO2	Research Objective 2
RO3	Research Objective 3
RO4	Research Objective 4
RQ1	Research Question 1
RQ2	Research Question 2
RQ3	Research Question 3
RQ4	Research Question 4
TAM	Technology Acceptance Model



# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 INTRODUCTION**

This chapter is divided into seven sections. The first section of the chapter discusses the background of the current study. The second section highlights the problem statement. The third section describes the research objectives and research questions. The fourth section explains the motivation of the study. The fifth section justifies the significance of the study. The sixth section provides the organization of the dissertation. Finally, the last section concludes the chapter.

### **1.2 BACKGROUND OF THE STUDY**

An audit is a process in which an auditor examines the financial statements of a company and provides assurance that these statements are prepared in accordance with the financial reporting framework (IAASB, 2009). Mainly, the auditors verify that the financial statements prepared and presented by the accountants are in accordance with accounting standards. However, the rapid growth of technology, such as the internet, has revolutionized human activities in all sectors such as medicine, economics, engineering, including auditing. Nowadays, with the internet, business dealings have changed; people can purchase assets online and make the payment without the need of physically going to a shop to acquire them, which used to be the case. As a result of the change in the dynamics business dealings, accounting is one of the fields which has been considerably affected by the development of technology (Tarek, Mohamed,

Houssain and Bassuony, 2017). Due to this considerable impact of technology on accounting, many corporations now use technological tools to record their daily transactions and to save their historical data. As the field of accounting evolves, so does auditing. In the audit profession, the Big-Four audit firms have significantly invested in information technology and developed audit software to facilitate their activities (Tarek et al. 2017).

In addition to the internet, Satoshi Nakamoto in his 2008 white paper introduced another type of payment with the bitcoin online transactions. The payment is made between different parties without the need of intermediaries like the financial institutions (Nakamoto, 2008). Bitcoin is a virtual currency used for online transaction payments (Swan, 2015). Bitcoins transactions are recorded in a distributed ledger called blockchain (Swan, 2015).

The blockchain, as stated above, is a digital distributed ledger to record bitcoin transactions. All transactions in the blockchain technology are public and can be seen by all the network participants. Furthermore, every transaction in the blockchain technology is connected to the previous recorded transactions (Cai and Zhu, 2016). However, blockchain technology is not only used for recording bitcoin transactions, it goes further by enabling the record of non-financial assets such as birth certificate, land, and licenses. Blockchain necessitates a technology paradigm shift. Nevertheless, it has to be kept in mind that there are no intermediaries to regulate the system. Any security measures are carried out by the participants of the network (Swan, 2015).

Another very important aspect of the blockchain is that it records transactions in chronological order, and once recorded in the system, it cannot be changed (Zhao, Fan and Yan, 2016; Crosby, Pattanayak, Verma and Kalvanaraman, 2016). Hence, the chronological record, the transparency and the availability of past transactions in the

blockchain system makes such data relevant to accounting and particularly for auditing. In this regard therefore, the objective of this study is to explore the Malaysian auditors' perception on blockchain.

Blockchain has some advantages. One of the advantages is its distributed ledger enabling two or more people to transact directly without a middleman at a low cost. Furthermore, the active nodes of the system maintain a complete copy of blockchain (Bible, Raphael, Taylor and Valiente, 2017). In addition, blockchain is the technology that could help to reduce the time of settlement, as it takes a long time with the traditional mode. Therefore, parties transacting in the blockchain system can save time by using blockchain. Moreover, the information of the parties involved, and all transaction details are kept in an audit trail within the blockchain system (Lewis, McPartland and Ranjan, 2017). Due to the advantages stated above, the use of blockchain is likely to gain relevance.

### **1.3 PROBLEM STATEMENT**

The enhancement in information technology, as well as the introduction of digital currency in business activities have resulted in global companies starting to use blockchain for their activities. These companies include Amazon, Ant Financial Hangzhou in China and many others (Castillo, 2019). Hence, in order to remain current and updated on the dynamic business environment, auditors must be familiar with blockchain in order to meet clients' expectations and needs. Generally, there is low awareness of blockchain (Bahga and Madiseti, 2016; Panicker and Kulkami, 2016; Kern, 2018) and it is not only in the accounting profession, but in general.

Kern (2018) conducted a study on the Level of Knowledge of blockchain among members of various societies including auditors. He found that most of the respondents were not aware about blockchain technology. Similarly, Kshetri (2017) reported in his study on blockchain as an emerging element that could break the poverty in the Global South countries, that the awareness of the main stakeholders of blockchain, such as the regulators, expected users and members, was little. It can be argued from these two studies that the awareness on blockchain is limited in the developing countries. Hence, this lack of awareness amongst users and even auditors may also exist in developing countries like Malaysia.

Furthermore, there are some challenges in auditing blockchain. This is because of the regulatory challenges that blockchain technology may encounter. To date there is an absence of a central agency that regulates blockchain activities in Malaysia. The Securities Commission Malaysia has issued guidelines on digital assets and token under Capital Markets Act 2007. One of these guidelines is the risk management on digital assets paragraph 15.08 (p.39) where the Digital Asset Exchange (DAX) Operator is required to identify the possible causes of operational risks that can emerge internally or externally. Once the sources of operational risks are identified, their impact should be mitigated by using appropriate procedures, systems, policy, and controls. Systems should be designed in order to ensure a high degree of security and operational reliability which includes having adequate capacity (Security Commission Malaysia). However, it must be noted that these requirements are for all digital assets in general, and not only for cryptocurrency. Nevertheless, the identification of potential operational risks, particularly in terms of procedures and controls, could also apply to the context of blockchain. Despite this guideline, when an error occurs during a transaction in the blockchain system, it can be problematic to determine the place where the error

occurred (Karbal, 2018). It would be challenging and time-consuming for auditors to attempt to trace and detect this error. Therefore, the problem of identifying the point of error makes the application of an appropriate law to this transaction difficult (Karbal, 2018; George, Peterson, Yaros, Beam, Dibbell and Moore, 2019).

Other than the regulation of blockchain, technical challenges may be encountered by auditors in auditing blockchain transactions. One of the technical challenges that blockchain may encounter is the scalability, which refers to the speed of a transaction in the blockchain system (Pawczuk, Massey, and Schatsky, 2018). The number of transactions initiated per day within financial institution is very high. This high amount of transactions to be recorded in blockchain can make the system heavy and reduce the speed of the transactions (Zheng, Xie, Dai, Chen and Wang, 2018). The low speed of the transaction can be explained by the many nodes required to validate a single transaction (Zheng et al., 2018). This low speed could also affect auditor's work when the auditors have to audit these numerous numbers of transactions during a tight audit timeframe.

Moreover, blockchain technology is exposed to an alarming percentage (51%) of cyberattacks, in which unethical individuals can control the most part of the system by making fraudulent activities (Yli-Huumo, Ko, Choi, Park and Smolander, 2016). This unethical act can make the audit process exposed to more audit risk. For example, if there is a fraudulent activity in the blockchain, it will be complicated for auditors to obtain audit evidence in relation to that transaction as source documents in relation to the transaction would be lacking. Hence, the cost of the transaction will be high if the system is controlled by dishonest people.

In addition to the above, currently due to the lack of empirical studies on blockchain, particularly in developing countries like Malaysia, there is uncertainty on

auditors' awareness and their perception on blockchain. This lack of empirical evidence could represent another challenge which needs to be studied.

The discussion above highlights a few of the challenges of blockchain that could potentially affect auditors. These challenges can only possibly be overcome if the auditors foresee these potential challenges of blockchain on the audit profession. However, such precautionary measures cannot be taken if auditors have a low understanding of blockchain, and therefore are unaware of the challenges that may arise for the audit profession. After highlighting the problems in relation to blockchain and auditors, the next section discusses the research objectives and research questions of the study.

#### **1.4 RESEARCH OBJECTIVES AND RESEARCH QUESTIONS**

Based on the problems mentioned above, particularly in term of prior studies raising the issue of lack of awareness of blockchain technology, this study aims to achieve the following research objectives, which are to:

- RO1: Determine the extent of Malaysian auditors' awareness on blockchain.
- RO2: Explore the Malaysian auditors' perception regarding the usefulness of blockchain.
- RO3: Investigate the Malaysian auditors' perception regarding challenges of auditing transactions on a blockchain system.
- RO4: Tests whether Level of Knowledge is associated with perception of auditors on blockchain; and if the perception in turn influences Intention to Use blockchain technology.

The above objectives seek to address the following research questions:

- RQ 1: What is the extent of awareness of Malaysian auditors on blockchain?
- RQ2: What is the Malaysian auditors' perception regarding the usefulness of blockchain?
- RQ3: What is the Malaysian auditors' perception on the challenges of auditing transactions on the blockchain system?
- RQ4: Does Level of Knowledge affects auditors' perception on blockchain; and does this perception influence their Intention to Use blockchain technology?

In order to attain the objectives of the study, which is the perception of Malaysian auditors on their awareness of blockchain, a quantitative method was used in this study. Specifically, primary data was collected using questionnaire survey. The questionnaires were distributed to auditors in audit firms throughout Malaysia using online survey. The sample of audit firms was selected based on convenient sampling. The study received sixty-five responses. Subsequent to stating the research objectives and research questions of this study. The next section discusses the motivation of the study.

## **1.5 MOTIVATION OF THE STUDY**

Blockchain, as a new information technology, presents a research opportunity in many sectors including accounting and particularly the audit profession. Thus, this study is driven by the following motivations.

Firstly, the Malaysia Institute of Accountants (MIA) has been conducting conferences and workshops on blockchain. This could have helped to increase accountant's and auditors' awareness of blockchain. Therefore, this study is motivated to find out how aware the auditors in Malaysia are on blockchain technology.

Secondly, the research on blockchain offers a broad range of opportunities which need to be studied within an empirical research. This will give a better understanding of the technology, as it has the potential of being used in a wide range of applications. According to Zhao et al. (2016), there is a need for more research to extend the security and the efficiency of blockchain as the technology is still at its infancy stage of development. Thus, this study will help to point out the challenges that auditors can be faced while auditing blockchain and its usefulness as well.

Thirdly, most of the studies done on blockchain are non-empirical studies and very few studies, if any, has been conducted in Malaysia. Some of these studies are by Panicker (2016), Xu (2016), Bible et al. (2017) and Broby and Paul (2017). Hence, this study seeks to fill the existing gap in the literature on blockchain. This study is therefore motivated to extend the literature on blockchain through conducting empirical research in the context of Malaysia. This study hopes to contribute to the limited literature on blockchain, particularly in the context of a developing country.

Fourthly, this study is motivated to gather the perception of Malaysian auditors on the usefulness and the challenges of blockchain. Nowadays, many disciplines are technologically advanced. Therefore, the accounting field needs to follow the new trend of innovations by increasing the profession's awareness on these technologies in order to satisfy their clients' needs and expectations.

## **1.6 SIGNIFICANCE OF THE STUDY**

The study will be significant to a number of parties. This study is expected to help auditors in assessing their awareness on blockchain technology. This would be useful to the audit profession in Malaysia as they may be interested to know whether their