ISSN: 1992-8645

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## MODEL OF UTAUT 2 FOR THE ADOPTION OF BLOCKCHAIN TECHNOLOGY IN IMPROVING QUALITY OF FINANCIAL REPORTING

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#### ABSTRACT

This study explores the adoption of blockchain technology to enhance the quality of financial reporting by utilizing the UTAUT2 model to assess the factors influencing its acceptance among internal accountants. Blockchain technology is essential to improve transparency, security, and accuracy in financial data. Despite the potential benefits of blockchain technology, the complexity of its application in financial records still requires further understanding. By applying a quantitative approach with data collected using questionnaires distributed to industry experts in the financial sector. The key findings reveal that most of the UTAUT2 factors have a positive significant effect on blockchain adoption, except for social influence that has a significant negative effect, along with hedonic motivation and price value do not have a significant influence on blockchain adoption. The conclusions of the study highlight the importance of technology-driven infrastructure development in financial reporting to present relevant, verifiable, comparable, understandable, and reliable financial statements. The rapid dynamics of the development of blockchain technology in various industries, including the financial sector, may limit the relevance of the findings in this study over time. Therefore, this study concludes by recommending exploring higher adoption by expanding the scope of future research.

Keywords: Blockchain, Technology, Accounting, Financial Reporting, Distributed Ledger, UTAUT2

#### 1. INTRODUCTION

The financial statement manipulation case is still a topic of discussion that has yet to be solved. Much of the integrity of financial reporting has been compromised by a variety of issues, including data inaccuracies, transaction errors, lack of transparency, and even significant fraudulent activity [1]–[5]. Related to this, there are numerous prominent cases of financial fraud [6], such as the collapse of Enron, which destroyed thousands of jobs and wiped out more than \$2 billion in pension funds [7]. In the Global Economic Crime Survey organized by PwC, nearly 20% of companies did not identify fraud that could erode company profitability [8].

Many companies have been forced to cease operations due to internal controls and deficiencies in corporate governance systems. As evidenced by the recent Toshiba scandal, the investigation revealed that this case was caused by a strict corporate culture at the top, which allowed improper be perpetrated based on employee behavioral factors [10]. Where senior management is responsible for most of the fraud by recording fictitious sales to manipulate financial statements [11]. This can occur due to several factors, including a single entity's centralized ownership of a database, which results in a lack of independence and the absence of verification for each transaction entry [12], [13]. Over time, many financial technologies have emerged to address these issues. The impact of technological developments is not limited to

accounting practices to occur [9]. A report issued by AFCE stated that financial fraud in companies can

emerged to address these issues. The impact of technological developments is not limited to companies or organizations but also extends to individuals [14]–[17]. Blockchain technology is among the most prominent technological trends, having assumed a central role in financial accounting and reporting [18], [19]. More than 80% of business leaders and organizations consider blockchain as a technology that can meet requirements in financial reporting so that business functionality will increase [20], [21]. © Little Lion Scientific

ISSN: 19	92-8645
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In practice, blockchain technology has undergone rapid development in recent years, with a wide range of potential to change accounting and cryptographically sealed [25]. For instance, Hong Kong has illustrated the implementation of Distributed Ledger Technology as a solution for trade finance through smart contracts [20], [26], [27]. The management of data can be conducted with greater efficiency and transparency, thereby enhancing accuracy, reducing the risk of fraud, and preventing the duplication of records [15], [22], [27]. As each additional transaction is added to the network block, it will be maintained and validated by other network members previously validated by most of those with access [18], [24], [28]. The stored data is linked to digital signatures (hashes), eliminating the need for a third party in financial reporting [15], [22].

Blockchain technology offers significant potential for businesses to enhance the monitoring of financial records and ensure compliance with legal requirements [23]. The advantages of blockchain technology have been acknowledged and embraced in financial accounting practices, especially in improving the quality of financial reporting. Quality financial reporting reflects information that is relevant, reliable, transparent and verifiable. Nevertheless, the adoption rate of blockchain in accounting remains relatively slow, largely due to the inherent complexity of blockchain technology, which necessitates a comprehensive and nuanced understanding. It is crucial for internal accountants, who are directly involved in preparing financial statements. to possess а comprehensive understanding of technology's blockchain applications in financial reporting. Various studies [29], [30] have demonstrated that blockchain technology is poised to profoundly impact the accounting profession, particularly in accounting practices and financial reporting.

The present study will, therefore, concentrate on using blockchain technology to enhance accounting practices and financial reporting, in addition to the influence of blockchain implementation on the quality of financial reporting. This research is based on the Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2), which provides a comprehensive framework for understanding the factors that influence the acceptance and use of technology. The UTAUT 2 framework [31], [32] identifies several key factors that influence technology acceptance, including the factors of financial reporting patterns [2], [13], [16], [18], [22]–[24]. Blockchain is designed in a decentralized manner, with all transaction entries distributed and

Performance Expectancy, Effort Expectancy, Social Influence. Facilitating Conditions, Hedonic Motivation, and Habit, which serve to measure the level of blockchain acceptance by internal accountants. This study aims to gain new insights by distributing questionnaires to industry experts, especially internal accountants about the opportunities and drawbacks of implementing blockchain in accounting and financial reporting practices. This study's findings will contribute to expanding the existing literature on the application of blockchain technology in accounting and financial reporting. This will be achieved by factors influencing internal analyzing the accountants' acceptance of blockchain technology. To achieve this, the UTAUT 2 indicators will be theoretically tested to strengthen internal accountants' understanding of the acceptance and use of blockchain technology as a technological innovation that supports the improvement of financial reporting quality.

### 2. LITERATURE REVIEW AND HYPOTHESIS

## 2.1 Theoretical Background

The Unified Theory of Acceptance and Use of Technology (UTAUT) is a theory that elucidates the intention to utilize and accept information technology [31]. From the Unified Theory of Acceptance and Use of Technology (UTAUT) perspective, the concept of technology usefulness is closely related to user behavior in the context of organizational activities. The UTAUT was developed following a comprehensive theoretical review of existing theories. Subsequently, in 2012, UTAUT underwent a reformulation, with particular consideration given to the utilization of technology in the context of consumers or individuals [32]. Consequently, from the perspective of internal accountants, UTAUT 2 will prove beneficial in investigating the behavior and acceptance of blockchain technology.

The Theory of Planned Behavior (TPB) is a behavioral theory that posits that an individual's intention to perform a given action is influenced by many internal and external factors [33]. The Theory of Planned Behavior (TPB) is a theoretical expansion of the Theory of Reasoned Action (TRA) [34], It posits that behavior is driven by a reasoned

### Journal of Theoretical and Applied Information Technology

<u>31<sup>st</sup> December 2024. Vol.102. No. 24</u> © Little Lion Scientific

ISSN: 19	92-8645
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9186

The ease of use of this technology will allow accountants to focus more on improving accuracy and efficiency in financial reporting. The ease of use of blockchain has been supported in research [42], [43] and applied to different fields. Therefore, applying blockchain technology can reduce the effort required by internal accountants, thereby increasing the effectiveness and efficiency of financial reporting.

H2. Effort expectancy has a positive impact on the use of blockchain.

### 2.2.3 Social influence

In the context of financial reporting, the social environment of accountants can influence their initial beliefs and preferences regarding the use of blockchain technology [43]. An accountant's perception may transform due to the influence exerted by social-environmental factors concerning the technology in question [37], [38]. Prior research has demonstrated a positive correlation between social influence and technology acceptance, particularly among individuals with limited experience with the technology in question [44], [45]. Furthermore, social influence can expedite the adaptation process of accountants to novel technologies through discourse with more seasoned colleagues. This fosters greater confidence among accountants, encouraging more active utilization of blockchain in financial reporting.

H3. Social influence has a positive impact on the use of blockchain.

## 2.2.4 Facilitating conditions

Individual behavioral control can be influenced by perceptions of the perceived ease or difficulty of performing the desired behavior and factors that facilitate the behavior [33], [46]. In the theory of planned behavior, behavioral control beliefs perceived by accountants that companies have including adequate infrastructure, resources, training, and regulations that support improved performance, can encourage them to accept and adapt to blockchain technology [46]. By improving the performance of accountants from the use of technology, it will be more likely for them to provide a relevant and understandable financial report. Findings in [42], [43] show that conditions that facilitate the use of blockchain can encourage the acceptance of the technology. Included in [40] is the focus on blockchain acceptance in different sectors. So, the following hypothesis is expected in this study.

#### action approach, whereby attitudes, subjective norms, and perceived behavioral control influence and shape behavior. The Social Construction Theory (SCT) posits that social influence is contingent upon how knowledge is constructed and understood and, thus, can influence behavior [35], [36]. This theory elucidates various facets of social reality about user behavior, which, in turn, encourages technological development [37], [38].

Considering these considerations, an investigation into the potential of blockchain technology to facilitate enhanced financial reporting practices among internal accountants appears warranted. According to Social Construction Theory and the Theory of Planned Behavior, individuals will employ technology if it offers them tangible benefits [32], [39]. Internal accountants must perform routine financial recordkeeping for the company's operational activities. As a result, internal accountants' financial reporting practices will increasingly encourage them to adopt technology to facilitate financial reporting. In this study, blockchain technology is important in meeting these needs.

## 2.2 Hypothesis Development

## 2.2.1 Performance expectancy

Performance expectancy is the degree to which accountants anticipate that blockchain technology will enhance financial reporting performance outcomes [32]. In the theory of planned behavior, the conviction that an action will yield a desired outcome can motivate an individual's intention to undertake that action [33]. As evidenced by research conducted by [40], an increase in the perceived performance benefits of blockchain technology is a predictor significant of its acceptance. Consequently, implementing blockchain technology by internal accountants can markedly diminish the probability of data manipulation and enhance the reliability of financial statements [22], [41]. Considering this rationale, the following hypothesis is proposed:

H1. Performance expectancy has a positive impact on the use of blockchain.

## 2.2.2 Effort expectancy

Effort expectancy refers to the extent to which an individual believes using a technology will be effortless [32]. The theory of planned behavior is concerned with an individual's belief in the ease of use of blockchain technology, which affects accountants' intention to adopt this technology [33].

ISSN: 1992-8645 www.jatit.org	E-ISSN: 1817-3195
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H4. Facilitating conditions has a positive impact on the use of blockchain.

## 2.2.5 Hedonic motivation

Hedonic motivation is defined as the pleasure or satisfaction felt from using a technology [32]. In the theory of planned behavior, this concept is known as willpower, where a person tries to achieve a level of satisfaction from achieving his goals [34]. The objective is to encourage accountants to feel satisfied with the results obtained from using blockchain technology for financial reporting purposes. The level of satisfaction experienced by accountants with the results yielded from using blockchain technology may influence the long-term acceptance of this technology. Findings in [44], [47]–[49] found a significant effect on accepting different technological focuses. This study can formulate the following hypothesis:

H5. Hedonic motivation has a positive impact on the use of blockchain.

## 2.2.6 Price value

Price value is a cross-exchange between the benefits of use that will be received and the costs incurred [50]. In general, individuals will consider the costs and benefits of a given situation. In the context of blockchain, the automation of financial transactions offers efficiency gains and the potential for cost savings for companies while reducing the risk of recording errors that will be incurred by companies, as well as the risk of recording errors [18]. The perception of the benefits and costs of blockchain technology influences accountants' decision to accept it. This is consistent with the theory of planned behavior, which posits that an individual's behavior is influenced by their perception of the behavior in question [32], [34] The advantages of blockchain in financial reporting can encourage internal accountants to behave in a way that supports improved reporting process. The findings of [49], [51]-[54] are in line with supporting the hypothesis formulated below.

H6. Price value has a positive impact on the use of blockchain.

## 2.2.7 Habit

In the theory of planned behavior, past behavior can impact future behavior; however, it cannot be used as a direct measure of habit. Rather, it can be used as a reflection in determining desired behavior [33]. In recent times, the use of technology has become a routine activity for individuals across the globe. This is also the case for accountants, for whom financial reporting is inextricably linked to the use of technology. Indeed, it has been demonstrated that utilizing blockchain technology will prove to be a profitable venture [55]. Therefore, using technology can facilitate accountants' acceptance of blockchain technology in their pursuit of producing quality financial reports. The findings in [42] show positive results towards habits in blockchain acceptance. Similar results in [47], [49], technological different [54] in contexts. Consequently, the following hypothesis is proposed in this study.

H7. Habit has a positive impact on the use of blockchain.

## 3. RESEARCH METHOLODOGY

## 3.1 Measurement Items

All questions used in the questionnaire were adopted and modified from various previous studies that used indicators in UTAUT 2 [31], [32], [44], [51]–[53]. Each variable tested through the questionnaire will use a 6-point Likert scale in [56] research that has several variables and tends to produce higher reliability. In this study, respondents' assessment of the statements of each variable in the questionnaire will be measured from strongly agree (6) to strongly disagree (1). The following research variables were used in this study, presented below.

Table 1: Operation of Variables

Variable	Code	Indicators
Performance	PE1	Perceived Usefulness
Expectancy	PE2	Outcome Expectation
	PE3	Relative Advantage
Effort	EE1	Ease of Use
Expectancy	EE2	Complexity
	EE3	Perceived Ease of Use
Social	SI1	Subjective Norm
Influence	SI2	Social Factors
	SI3	Image
Facilitating	FC1	Perceived Behavioral
Conditions		Control
	FC2	Facilitating Condition
	FC3	Compatibility
Hedonic	HM1	Attitude
Motivation	HM2	Perceived Enjoyment
Price Value	PV1	Perceived Quality
	PV2	Perceived Value
Habit	HB1	Perceived Behavioral
		Control
	HB2	Subjective Norms
Use of	UB1	Blockchain Literacy
Blockchain	UB2	Individual Experience

#### ISSN: 1992-8645

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#### 3.2 Data Analysis

The focus of this study is to empirically analyze the factors of internal accountants' acceptance of blockchain technology as a technology in improving the quality of financial reporting. This research will use primary data collected through questionnaires. Respondents will be invited to complete the questionnaire online through Google Forms. The questionnaire is disseminated to respondents directly or through social media platforms such as WhatsApp, Line, Instagram, LinkedIn, and other social media platforms.

In this study, the population will be accounting practitioners (internal accountants) who work in publicly listed companies in Indonesia and are experienced in utilizing blockchain technology for accounting practices and financial reporting. According to [57], the ideal sample size for a study is greater than 30 and less than 500. In addition, in [58] to obtain reliable results, the minimum sample size is 10 times the number of variable analyzed. This study has eight variables. Thus, to fulfill the provisions in [57], [58] the minimum sample size in this study is at least 80 samples. Moreover, we have fulfilled the requirements of this study by collecting 151 total responses, 132 samples were eligible for this study while 19 samples were unable to be used in this study due to irrelevant answers.

After the reasonable sample is obtained, all statistical tests and data analysis will be carried out using the Structural Equation Modeling (SEM) - Partial Least Square (PLS) technique with the help of the SmartPLS version 4.1.0.8 statistical application.

# 4. RESULT AND DISCUSSION4.1. Descriptive Analysis

Respondents in this questionnaire obtained 151 responses, with 132 respondents who met the research requirements. The gender of the respondents was female as many as 61 respondents (46.2%) while male respondents were 71 respondents (53.8%). The respondent data obtained consists of several aspects, which can be seen in Table 2.

Table 2: Demographic Data of the Respondents							
Category	Total	Percentage					
Gender							
Male	71	53.8%					
Female	61	46.2%					
Total	132	100%					
	Age						
20 - 25 years	44	33.3%					
26 - 30 years	45	34.1%					
31 - 35 years	18	13.6%					
36 - 40 years	11	8.3%					
41 - 45 years	9	6.8%					
> 45 years	5	3.8%					
Total	132	100%					
Working	g Experience						
< 1 years	11	8.3%					
1-5 years	63	47.7%					
5 – 10 years	46	34.8%					
> 10 years	12	9.1%					
Total	132	100%					
Occ	upation						
Internal Accountant	72	54.5%					
General Manager	18	13.6%					
Senior Manager	19	14.4%					
IT Manager	10	7.6%					
Blockchain Specialist	4	3.0%					
Finance	4	3.0%					
Assistant Vice	1	0.8%					
President							
Accounting Staff	4	3.0%					
Total	132	100%					

All data obtained from distributing questionnaires is processed using SmartPLS version 4.1.0.8 which will represent the results of testing the hypothesis of this study. Table 2 provides data regarding the demographic profile of 132 respondents. In terms of gender, the sample is dominated by males with a percentage of 53.8% of the total sample. Most of the respondents are in the age range of 26-30 years with a percentage of 34.1%, and the majority have 1-5 years of work experience, representing 47.7%. With most respondents employed as internal accountants with a percentage of 54.5% of the total respondents.

#### 4.2. Validity and Reliability Test

In this study, the data obtained will be tested and analyzed by testing the outer model and inner model. In the outer model, there is a validity test which will be examined using the Average Variance Extracted (AVE) value, the results will be considered convergently valid if the AVE > 0.5 and Outer Loading value > 0.7 [59], [60] in Table 3. Afterward, the discriminant validity test is conducted through the Fornell-Larcker test which can help identify the value of each variable. The data will be considered in accordance with the discriminant validity



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ISSN: 1992-864	45		www.jatit.org						E-ISSN	N: 1817-3195
requirements [59] in Table	if the I 4.	Fornell-La	rcker val	ue is > 0.7	Social Influe	nce	SI1 SI2 SI3	0.836 0.744 0.837	0.651	Valid Valid Valid
_					Facilit	tating	FC1	0.849	0.720	Valid
Ta	bel 3: Co	onvergent V	alidity Tes	t	Condi	tions	FC2	0.860		Valid
Construct	Code	Outer	AVE	Description			FC3	0.836		Valid
		Loading			Hedor	nic	HM1	0.880	0.774	Valid
Performance	PE1	0.894	0.813	Valid	Motiv	ation	HM2	0.879		Valid
Expectancy	PE2	0.912		Valid	Price '	Value	PV1	0.908	0.840	Valid
1 5	PE3	0.899		Valid			PV2	0.924		Valid
Effort	EE1	0.854	0.717	Valid	Habit		HB1	0.934	0.855	Valid
Expectancy	EE2	0.836		Valid			HB2	0.915		Valid
1 2	EE3	0.849		Valid	Use of	f	UB1	0.923	0.844	Valid
					Block	chain	UB2	0.914		Valid
		Tabel 4	: Discrimi	nant Validity T	est Resul	ts with	Fornell-La	arcker		
		EE	FC	HB	HM	PE	PV	SI	UB	_
	EE	0.847								=
	FC	0.777	0.848	3						
	HB	0.738	0.743	0.925						

	0./01	0.731	0./1/	0.000				
PE	0.823	0.841	0.806	0.827	0.901			
PV	0.643	0.687	0.721	0.621	0.691	0.916		
SI	0.817	0.804	0.783	0.791	0.902	0.686	0.807	
UB	0.793	0.842	0.777	0.747	0.825	0.687	0.756	0.919
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As shown in Table 3, the test results show that all indicators used are convergently valid in forming latent variables. This is indicated by the AVE value for all indicators being above 0.5 and the Outer Loading value above 0.7. Which means, the indicators used in this study are relevant and can strongly represent the latent variable being measured. In other side, the Fornell-Larcker test results prove that the data has met the discriminant validity criteria, indicated by the results which are all greater than 0.7.

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In the reliability test, Cronbach's Alpha can measure the consistency reliability of all indicators with the required criteria > 0.7 and Composite Reliability (CR) with a value of 0.7 [59], [60]. In this study, each indicator shows good reliability. This is supported by the CR and Cronbach's Alpha values for each indicator of more than 0.7, which indicates that each indicator has good internal consistency and is reliable as a measurement indicator.

Tabel 5: Construct reliability and validity

Variable	Cronbach's alpha	rho_a	CR	AVE
PE	0.885	0.885	0.929	0.813
EE	0.802	0.803	0.884	0.717
SI	0.734	0.754	0.848	0.651
FC	0.805	0.807	0.885	0.720
HM	0.707	0.707	0.872	0.774
PV	0.809	0.814	0.913	0.840
HB	0.831	0.839	0.922	0.855
UB	0.815	0.817	0.915	0.844

#### 4.3. Determinant Coefficient

In this research, the variable use of blockchain is an endogenous variable of the study. The coefficient of determination  $(R^2)$  analysis can measure how much the dependent variable can be explained by the independent variables [61].

Table 6: R-Square Test Results $(R^2)$					
Dependent	R Square	R Square			
Variable		Adjusted			
Use of Blockchain	0.795	0.784			

Based on the results of testing the internal model which consists of testing the coefficient of determination presented in Table 6, it shows that the R-Square for the Use of Blockchain (UB) variable has a value of 0.795 or 79.5%. Which means that the proportion of variance in the UB variable can be predicted adequately by the independent variables and reflects the actual condition in the field. So that the results of this study can be declared reliable and valid.

#### 4.4. Hypothesis Testing

Based on the test results of the outer model, all indicators used in this study have passed the validity and reliability tests, so the hypothesis testing in this study can be continued. This hypothesis testing uses two-tailed with a confidence level of 95%. Which means there is a tolerance of 5% or  $\alpha = 0.005$  and significant results are indicated by a T-Statistic > 1.96 [59], [61].

#### Journal of Theoretical and Applied Information Technology

<u>31<sup>st</sup> December 2024. Vol.102. No. 24</u> © Little Lion Scientific

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ISSN: 1992-8645				E-ISSN: 1817-31
Table 7:	Hypothesis testi	ng (Bootstrapp	oing)	4.5. Discussion
Hypothesis	<b>T-Statistic</b>	P Values	Result	Based on statistical testing of the hypothes
PE -> UB	2.337	0.019	Accept	proposed in this study, the results show that H1
EE -> UB	2.547	0.011	Accept	accepted. This means that Performance Expectant
SI -> UB	2.465	0.014	Accept	has a positive and significant effect on the use

Accept

Reject

Reject

Accept

0.000

0.545

0.298

0.047

Table 7 shows the results of hypothesis testing using the Bootstrapping method using SmartPLS version 4. In this case, a variable can be said to be significant if the P-Value < 0.05 and indicating positive or negative if the path coefficient value shows a number close to +1 (or -1) is a strong positive (negative) [59]. So, the results of hypothesis testing in this study are as follows.

4.483

0.605

1.040

1.989

FC -> UB

HM -> UB

 $PV \rightarrow UB$ 

HB -> UB

- Hypothesis 1 is acceptable. Performance Expectancy has a significant positive effect on the Use of Blockchain, with a T-statistic value of 2.337 > 1.96 and a P-value of 0.019 < 0.05.
- Hypothesis 2 is acceptable. Effort Expectancy has a significant positive effect on the Use of Blockchain, with a T-statistic value of 2.547 > 1.96 and a P-value of 0.011 < 0.05.
- Hypothesis 3 is acceptable. Social Influence has a significant negative effect on the Use of Blockchain, with a T-statistic value of 2.465 > 1.96 and a P-value of 0.014 < 0.05.
- Hypothesis 4 is acceptable. Facilitating Conditions have a significant positive effect on the Use of Blockchain, with a T-statistic value of 4.483 > 1.96 and a P-value of 0.000 < 0.05.
- Hypothesis 5 is rejected. The test obtained a Tstatistic value of 0.605 < 1.96 and a P-value of 0.545 > 0.05 which indicates that Hedonic Motivation has no significant effect on the Use of Blockchain.
- Hypothesis 6 is rejected. The test obtained a Tstatistic value of 1.040 < 1.96 and a P-value of 0.298 > 0.05 which indicates that Price Value has no significant effect on the Use of Blockchain.
- Hypothesis 7 is acceptable. The T-statistic value of 1.989 > 1.96 and P-value of 0.047 < 0.05 indicate that Habit has a significant positive effect on the Use of Blockchain.

Based on statistical testing of the hypotheses proposed in this study, the results show that H1 is accepted. This means that Performance Expectancy has a positive and significant effect on the use of blockchain in financial reporting. This is supported by the path coefficient result of 0.254, this relationship indicates a positive relationship [59]. As a result, the higher confidence that blockchain can improve the quality of financial reports, the tendency to adopt this technology also increases. The findings of this study are relevant to previous research [42], [43] where blockchain is considered to provide benefits such as transparency, efficiency, and high accuracy in financial records, thereby reducing the risk of manipulation cases.

H2 is accepted, which means that Effort Expectancy has a positive and significant effect on the use of blockchain in financial reporting. With a path coefficient of 0.222, which indicates a positive relationship. Effort expectancy reflects the accountant's perceived ease of learning and using blockchain technology. These results indicate that the easier it is to understand how blockchain works, the more likely it is to adopt it in financial reporting. The findings in this study are in line with the findings in research [42], [43] where the convenience offered will support time efficiency in conducting financial reporting. However, technical challenges such as system complexity often become barriers. For this reason, a simple interface design will make it easier to operate.

H3 is accepted where Social Influence has a negative and significant influence on decisions in using blockchain. This is supported by the path coefficient result of -0.216, which shows that social influence has a negative effect on the use of blockchain for financial reporting. As a result, the more pressure from the accountant's social environment or the influence of others, the lower the likelihood that the accountant will use blockchain. However, the p-value of 0.014 < 0.05 indicates that social influence has a strong enough impact in influencing the adoption rate. This negative influence can occur when accountants feel that external recommendations lead to a high level of risk. Especially if accountants doubt the real benefits of using blockchain or feel that blockchain is adopted only because it follows trends rather than needs.

H4 is accepted, which means that Facilitating Conditions have a positive and significant influence

ISSN:	1992-8645	
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on the use of blockchain in financial reporting. With a path coefficient of 0.399, it indicates a positive influence where the availability of infrastructure and technical support plays an important role in driving blockchain adoption. Thus, companies need to invest in technological infrastructure that can provide continuous technical support to effectively integrate blockchain. In addition, adequate training for accountants plays an important role in encouraging them to adapt immediately. The findings in this study are relevant to the findings presented in research [40], [42], [43] where support from the company or organization has an important role in ensuring successful adoption.

H5 is rejected where the enjoyment of using a technology does not have a significant influence on accountants' decisions to use blockchain. The path coefficient of hedonic motivation shows 0.053. These results indicate that professional accountants do not prioritize the element of enjoyment or emotional satisfaction alone when deciding to adopt technology that is professional in nature. This finding is relevant to research in [42], [51], [52] where hedonic motivation has no significant influence in the context of technology adoption. Thus, the focus of blockchain adoption should be more on the functional aspects and efficiency of use rather than just the enjoyable experience.

H6 is rejected where the Price Value does not have a significant influence on the decision to use blockchain. The path coefficient of price value shows 0.072. This shows that the Price Value factor is not relevant to accountants, where generally accountants do not know very clearly about the costs incurred. Accountants prioritize perceived operational benefits over cost factors in blockchain adoption decisions. The findings in this study are relevant to research in [42], [62] where price value has no significant influence in the context of adoption of technology. But for organizations, price value is important to combine with actual benefits that are useful to users.

H7 is accepted that Habit has a positive and significant influence on the use of blockchain in financial reporting. With a path coefficient of 0.192, which indicates a positive relationship. Habit plays an important role, where previous experience with digital technology or other accounting information systems can strengthen the likelihood of accountants to adopt blockchain. The findings in this study are relevant to research in [42], [47], [49], how often a person is familiar with using technology, can affect

their likelihood of adopting other technologies. It can also explain why professionals who are already familiar with digital technology are more open and interested in new innovations.

#### 5. CONCLUSION AND SUGGESTION

The implications of our results indicate that the success of blockchain adoption requires a strong technological infrastructure and а clear understanding of the advantages of blockchain by practitioners of financial accounting in using the technology. Practically, companies or organizations can develop an effective blockchain adoption strategy. This could include conducting intensive training activities for future users, especially accountants, to improve technological literacy. By creating a sustainable education program, the company or organization can develop an in-depth understanding of the benefits of blockchain adoption in financial reporting for its future users. In addition, companies or organizations can consider consulting with technology developers to ensure that the integration process with existing accounting systems can proceed successfully.

Another finding is that for a financial accountant, technology provides an opportunity to optimize oversight of financial data more efficiently, so that data can be more easily verified securely and decrease the risk of manipulation. Meanwhile, companies can prioritize the reliability of blockchain to improve performance expectations and ensure that the technology is easy to use to increase effort expectations in real-world practices. This research clearly highlights the important role of blockchain in improving transparency, efficiency, and accuracy in financial reporting. However, the results indicate that excessive social pressure must be minimized for blockchain adoption to be implemented more effectively in the work environment.

Our own opinion based on the results during this research process concluded that the adoption of blockchain in financial reporting is a strategic step that not only supports accountability but also develops stakeholder trust in the financial statements created. The implementation of blockchain can significantly fulfill the characteristics of financial statements such as providing financial information that is relevant and understandable to various parties, such as investors, auditors, and regulators. With its decentralized characteristics, blockchain can ensure that financial data can be accurately verified.

Despite the findings in the current adoption



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dynamics, the rapid evolution of blockchain technology will allow several other factors that influence adoption decisions to emerge in the future. This may limit the relevance of the findings over time. Consequently, future researchers need to further explore the more specific adoption trends and long-term impact of blockchain integration to extend these findings. However, our research indirectly has advantages in the topic of discussion, where the implementation of blockchain in financial reporting is still relatively new and still requires more in-depth research in the future. This means future researchers may further support the broader adoption of blockchain across financial accounting practices.

Based on the results and discussion obtained in this study, further studies are needed to explore the hedonic motivation and price value factors in the adoption of blockchain in financial reporting. Therefore, future research can further deepen the understanding of how the price value factor and the pleasure of using factor can affect the adoption of a new technology. In addition, further research can also include other external factors such as government regulations, technology infrastructure, etc. by expanding the scope of the study. By expanding the scope of the study, it is expected to provide a more in-depth picture of the factors that influence the use of blockchain in financial reporting.

## REFERENCES

- M. Akter, T. F. Kummer, and O. Yigitbasioglu, "Looking beyond the hype: The challenges of blockchain adoption in accounting," *Int. J. Account. Inf. Syst.*, vol. 53, 2024, doi: 10.1016/j.accinf.2024.100681.
- [2] M. Bellucci, D. Cesa Bianchi, and G. Manetti, "Blockchain in accounting practice and research: systematic literature review," *Meditari Account. Res.*, vol. 30, no. 7, pp. 121–146, 2022, doi: 10.1108/MEDAR-10-2021-1477.
- [3] C. W. Cai, "Triple-entry accounting with blockchain: How far have we come?," Acc. Financ., vol. 61, pp. 71–93, 2021, doi: 10.1111/acfi.12556.
- [4] R. A. Novatiani and R. W. R. Kusumah, "Analysis of factors affecting the quality of financial statements," *Int. J. Innov. Creat. Chang.*, vol. 6, no. 7, pp. 202–209, 2019.
- [5] B. L. Handoko, A. S. L. Lindawati, and M. Vienna, "Fraud Pentagon Model for Detecting Fraudulent Financial Reporting in

Banking Sector," Int. J. Recent Technol. Eng., vol. 8, no. 6, pp. 2832–2838, 2020, doi: 10.35940/ijrte.f8380.038620.

[6] A. S. L. Lindawati, B. L. Handoko, R. K. Widayanto, and D. R. Irianto, "Model of Innovation Diffusion for Fraud Detection Using Robotic Process Automation," in ICIBE '23: Proceedings of the 2023 9th International Conference on Industrial and Business Engineering, 2023, pp. 245–251. doi:

https://doi.org/10.1145/3629378.3629455.

- [7] International Banker, "The Enron Scandal (2001)," *History of Financial Crises*, 2021. https://internationalbanker.com/history-offinancial-crises/the-enron-scandal-2001/
- [8] PWC, "2024-global-economic-crimesurvey-PwC sentences. Accessed On 27 July 2024.," 2024. [Online]. Available: https://www.pwc.com/gx/en/services/forens ics/economic-crime-survey.html
- [9] J. W. Carpenter, "Toshiba's Accounting Scandal: How It Happened (OTCBB: TOSBF)," *Investopedia*, 2021. https://www.investopedia.com/articles/inve sting/081315/toshibas-accounting-scandalhow-it-happened.asp (accessed Sep. 07, 2024).
- [10] ACFE, "The Nations Occupational Fraud 2024 : A Report To The Nations," 2024.
   [Online]. Available: https://www.acfe.com/-/media/files/acfe/pdfs/rttn/2024/2024report-to-the-nations.pdf
- J. Jaswadi, H. Purnomo, and S. Sumiadji, "Financial statement fraud in Indonesia: a longitudinal study of financial misstatement in the pre- and post-establishment of financial services authority," *J. Financ. Report. Account.*, vol. 22, no. 3, pp. 634– 652, 2024, doi: https://doi.org/10.1108/JFRA-10-2021-0336.
- [12] K. Danach, H. J. Hejase, A. Faroukh, H. Fayyad-Kazan, and I. Moukadem, "Assessing the Impact of Blockchain Technology on Financial Reporting and Audit Practices," *Asian Bus. Res.*, vol. 9, no. 1, p. 30, 2024, doi: 10.20849/abr.v9i1.1427.
- S. Secinaro, F. Dal Mas, V. Brescia, and D. Calandra, "Blockchain in the accounting, auditing and accountability fields: a bibliometric and coding analysis," *Accounting, Audit. Account. J.*, vol. 35, no. 9, pp. 168–203, 2021, doi: 10.1108/AAAJ-10-2020-4987.

TITAL	
E-ISSN: 1817-3195	1

[14] M. Arnaboldi, C. Busco, and S. Cuganesan, "Accounting, accountability, social media and big data: revolution or hype?," *Accounting, Audit. Account. J.*, vol. 30, no. 4, 2017, doi: 10.1108/AAAJ-03-2017-2880.

ISSN: 1992-8645

- [15] S. A. Borhani, J. Babajani, I. R. Vanani, S. S. Anaqiz, and M. Jamaliyanpour, "Adopting Blockchain Technology to Improve Financial Reporting by Using the Technology Acceptance Model (TAM)," *Int. J. Financ. Manag. Account.*, vol. 6, no. 22, pp. 155–171, 2021, [Online]. Available: http://www.ijfma.ir/article\_17481.html
- [16] Meiryani, M. Sujanto, A. S. L. Lindawati, A. Zulkarnain, and S. Liawatimena, "Auditor's Perception on Technology Transformation: Blockchain and CAATs on Audit Quality in Indonesia," *Int. J. Adv. Comput. Sci. Appl.*, vol. 12, no. 8, pp. 526–533, 2021, doi: 10.14569/IJACSA.2021.0120861.
- [17] P. L. E. O. Handoko, P. S. L. I. N. Lindawati, P. Sarjono, and P. Mustapha, "Innovation Difussion Model in Auditors' Acceptance of Metaverse Technology," *J. Theor. Appl. Inf. Technol.*, vol. 101, no. 14, pp. 5481–5490, 2023.
- [18] E. Bonsón and M. Bednárová, "Blockchain and its implications for accounting and auditing," *Meditari Account. Res.*, vol. 27, no. 5, pp. 725–740, 2019, doi: 10.1108/MEDAR-11-2018-0406.
- T. Carlin, "Blockchain and the Journey Beyond Double Entry," *Aust. Account. Rev.*, vol. 29, no. 2, pp. 305–311, 2019, doi: 10.1111/auar.12273.
- [20] Deloitte, "Deloitte's 2020 Global Blockchain Survey: From promise to reality," 2020. [Online]. Available: https://www2.deloitte.com/content/dam/insi ghts/us/articles/6608\_2020-globalblockchain-survey/DI\_CIR 2020 global blockchain survey.pdf
- [21] N. Gilbert, "51 Critical Blockchain Statistics: 2024 Data Analysis & Market Share," *Finances Online*, 2024. https://financesonline.com/blockchainstatistics/
- [22] E. K. Chowdhury, A. Stasi, and A. Pellegrino, "Blockchain Technology in Financial Accounting: Emerging Regulatory Issues," *Rev. Econ. Financ.*, vol. 21, no. July, pp. 862–868, 2023, doi: 10.55365/1923.x2023.21.94.
- [23] M. Utkina, "Leveraging Blockchain Technology for Enhancing Financial

Monitoring: Main Challenges and Opportunities," *Eur. J. Interdiscip. Stud.*, vol. 15, no. 2, pp. 134–151, 2023, doi: 10.24818/ejis.2023.21.

- [24] A. S. L. Lindawati, B. L. Handoko, and M. Heykal, "Model of Blockchain Adoption in Financial Audit Profession," in 2023 IEEE 9th International Conference on Computing, Engineering and Design (ICCED), Kuala Lumpur, Malaysia: IEEE, 2023, pp. 1–6. doi: 10.1109/ICCED60214.2023.10425437.
- [25] J. Dai and M. A. Vasarhelyi, "Toward blockchain-based accounting and assurance," J. Inf. Syst., vol. 31, no. 3, pp. 5– 21, 2017, doi: 10.2308/isys-51804.
- [26] FSDC, "Hong Kong-Building Trust Using Distributed Ledger Technology," Wan Chai, Hongkong, 2017. [Online]. Available: https://www.fsdc.org.hk/media/q4qlrijm/dlt -paper\_e.pdf
- [27] Iriyadi, Meiryani, T. A. N. P. S. Tiara, A. Purnomo, and G. Salim, "Blockchain Utilization in Actions To Empower Digitalization of Accounting Information Systems for Small and Medium-Sized Entities in Indonesia," J. Theor. Appl. Inf. Technol., vol. 101, no. 17, pp. 7033–7044, 2023.
- [28] E. Pimentel and E. Boulianne, "Blockchain in Accounting Research and Practice: Current Trends and Future Opportunities\*," *Account. Perspect.*, vol. 9999, 2020, doi: 10.1111/1911-3838.12239.
- [29] P. R. Brody, "Going Public: EY Global Blockchain Summit 2020," 2020. [Online]. Available: https://assets.ey.com/content/dam/eysites/ey-com/en\_au/pdfs/going-public-howpublic-blockchains-will-create-exponentialgrowth.pdf
   [20] D. Litter "The able balance of the second second
- [30] Deloitte, "The blockchain galaxy, a comprehensive research on distributed ledger technologies," 2020, [Online]. Available:
  www2.deloitte.com/content/dam/Deloitte/it /Documents/financial-services/Deloitte Blockchain galaxy ndf

services/Deloitte\_Blockchain\_galaxy.pdf

 [31] V. Venkatesh, M. G. Morris, G. B. Davis, and F. D. Davis, "User Acceptance of Information Technology: Toward a Unified View," *MIS Q.*, vol. 27, no. 3, pp. 425–478, 2003, doi: http://www.jstor.org/stable/30036540.

[32] V. Venkatesh, J. Y. L. Thong, and X. Xu, "Consumer Acceptance and Use of

ISSN: 1992-8645

www.jatit.org



Information Technology: Extending the Unified Theory of Acceptance and Use of Technology," *MIS Q.*, vol. 36, no. 1, pp. 157–178, 2012.

- [33] I. Ajzen, "The Theory of Planned Behavior," *Organ. Behav. Hum. Decis. Process.*, vol. 50, no. 2, pp. 179–211, 1991, doi: https://doi.org/10.1016/0749-5978(91)90020-T.
- [34] I. Ajzen, "From Intentions to Actions: A Theory of Planned Behavior BT - Action Control: From Cognition to Behavior," J. Kuhl and J. Beckmann, Eds., Berlin, Heidelberg: Springer Berlin Heidelberg, 1985, pp. 11–39. doi: 10.1007/978-3-642-69746-3\_2.
- [35] T. Andrews, "What is Social Constructionism?," Grounded Theory Rev., vol. 11, no. 1, pp. 1–30, 2012, doi: 10.4324/9781315715421-1.
- P. L. Berger and T. Luckmann, The Social Construction of Reality: A Treatise in The Sociology of knowledge. 1966. [Online]. Available: https://www.google.nl/books/edition/The\_S ocial\_Construction\_of\_Reality/Jcma84waN 3AC?hl=id&gbpv=1&pg=PT9&printsec=fr ontcover
- [37] H. K. Klein and D. L. Kleinman, "The Social Construction of Technology: Structural Considerations," *Sci. Technol. Hum. Values*, vol. 27, no. 1, pp. 28–52, 2002, doi: http://www.jstor.org/stable/690274.
- [38] R. Williams and D. Edge, "The social shaping of technology," *Res. Policy*, vol. 25, no. 6, pp. 865–899, 1996, doi: 10.1016/0048-7333(96)00885-2.
- [39] M. Thorhauge, S. Haustein, and E. Cherchi, "Accounting for the Theory of Planned Behaviour in departure time choice," *Transp. Res. Part F Traffic Psychol. Behav.*, vol. 38, pp. 94–105, 2016, doi: 10.1016/j.trf.2016.01.009.
- [40] A. S. Jameel and A. S. Alheety, "Blockchain technology adoption in SMEs: the extended model of UTAUT," Int. Conf. Intell. Technol. Syst. Serv. Internet Everything, no. December, 2022, doi: 10.1109/ITSS-IoE56359.2022.9990950.
- [41] M. Samaduzzaman, "Blockchain: Future of Accounting Education," Asian J. Financ. Account., vol. 12, no. 2, p. 14, 2020, doi: 10.5296/ajfa.v12i2.17679.
- [42] D. K. Boison, E. Malcalm, A. Antwi-Boampong, M. O. Doumbia, and K. K.

Hiran, "Assessing Factors Affecting the Blockchain Adoption in Public Procurement Delivery in Ghana: A Correlational Study Using UTAUT2 Theoretical Framework," *Int. J. Ambient Comput. Intell.*, vol. 13, no. 1, 2022, doi: 10.4018/ijaci.314568.

- [43] L. T. Nguyen, D. T. Nguyen, K. N. N. Ngoc, and D. T. V. Duc, "Blockchain adoption in logistics companies in Ho Chi Minh City, Vietnam," *Cogent Bus. Manag.*, vol. 10, no. 1, pp. 1–25, 2023, doi: 10.1080/23311975.2023.2216436.
- [44] D. A. Almajali, R. Masa'Deh, and Z. M. d. Dahalin, "Factors influencing the adoption of Cryptocurrency in Jordan: An application of the extended TRA model," *Cogent Soc. Sci.*, vol. 8, no. 1, pp. 1–26, 2022, doi: 10.1080/23311886.2022.2103901.
- [45] A. S. A. Alomari and N. L. Abdullah, "Factors influencing the behavioral intention to use Cryptocurrency among Saudi Arabian public university students: Moderating role of financial literacy," *Cogent Bus. Manag.*, vol. 10, no. 1, pp. 1– 22, 2023, doi: 10.1080/23311975.2023.2178092.
- [46] M. Yzer, "Reasoned Action Theory," in Encyclopedia of Communication Theory, Sage Publications, Inc, 2012, pp. 120–136. doi: 10.4135/9781412959384.n313.
- [47] C. F. Y. Chen, T. J. Chan, and N. H. Hashim, "Factor Influencing Continuation Intention of Using Fintech from the Users' Perspectives: Testing of Unified Theory of Acceptance and Use of Technology (UTAUT2)," Int. J. Technol., vol. 14, no. 6, pp. 1277–1287, 2023, doi: 10.14716/ijtech.v14i6.6636.
- [48] W. H. A. Zaini, M. K. Hamad, and A. S. Najim, "Factors affecting the adoption of an accounting information system based on utaut2 and its implementation in a tourism corporation," *African J. Hosp. Tour. Leis.*, vol. 9, no. 1, 2020.
- [49] A. S. L. Lindawati, B. L. Handoko, and E. Hendra, "Behavioral Intention to Use Mobile Banking using UTAUT 2 Model," in 2023 IEEE 9th International Conference on Computing, Engineering and Design (ICCED), Kuala Lumpur, Malaysia: IEEE, 2023, pp. 1–6. doi: 10.1109/ICCED60214.2023.10425192.
- [50] W. B. Dodds, K. B. Monroe, and D. Grewal, "Effects of Price, Brand, and Store Information on Buyers' Product

www.jatit.org



Evaluations," *J. Mark. Res.*, vol. 28, no. 3, p. 307, 1991, doi: 10.2307/3172866.

- [51] G. A. Abbasi, L. Y. Tiew, J. Tang, Y. N. Goh, and R. Thurasamy, "The adoption of cryptocurrency as a disruptive force: Deep learning-based dual stage structural equation modelling and artificial neural network analysis," *PLoS One*, vol. 16, no. 3, 2021, doi: 10.1371/journal.pone.0247582.
- [52] M. Al-Okaily, M. S. A. Rahman, A. Ali, E. Abu-Shanab, and R. Masa'deh, "An empirical investigation on acceptance of mobile payment system services in Jordan: extending UTAUT2 model with security and privacy," *Int. J. Bus. Inf. Syst.*, vol. 42, no. 1, pp. 123–152, 2023, doi: 10.1504/IJBIS.2020.10036883.
- [53] M. H. Khan, N. A. Mustaffa, and M. M. Habib, "Users Acceptance of Mobile Finance Service in Bangladesh and the impact of COVID-19: Extended UTAUT2," *AIUB J. Sci. Eng.*, vol. 20, no. 3, pp. 87–96, 2021, doi: 10.53799/AJSE.V20I3.193.
- [54] M. Muchran *et al.*, "Integration of the UTAUT 2 Model and Awareness of Cybercrime as the Moderating Variable of Cashless Adoption in Indonesia," *Rev. Integr. Bus. Econ. Res.*, vol. 13, no. 3, pp. 304–321, 2024.
- [55] E. P. Pedreño, V. Gelashvili, and L. P. Nebreda, "Blockchain and its application to accounting," *Intang. Cap.*, vol. 17, no. 1, pp. 1–16, 2021, doi: 10.3926/IC.1522.
- [56] R. Chomeya, "Quality of Psychology Test Between Likert Scale 5 and 6 Points," J. Soc. Sci., vol. 6, no. 3, pp. 399–403, 2010, doi: 10.3844/jssp.2010.399.403.
- [57] J. T. Roscoe, *Fundamental Research Statistics for the Behavioural Sciences*, 2nd Editio. Holt Rinehart & Winston, 1975.
- [58] J. F. Hair, M. Sarstedt, L. Hopkins, and V. G. Kuppelwieser, "Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research," *Eur. Bus. Rev.*, vol. 26, no. 2, pp. 106–121, 2014, doi: 10.1108/EBR-10-2013-0128.
- [59] J. F. Hair, J. J. Risher, M. Sarstedt, and C. M. Ringle, "When to use and how to report the results of PLS-SEM," *Eur. Bus. Rev.*, vol. 31, no. 1, pp. 2–24, 2019, doi: 10.1108/EBR-11-2018-0203.
- [60] J. F. Hair, G. T. M. Hult, C. M. Ringle, and M. Sarstedt, A Primer on Partial Least Squares Structural Equation Modeling, Third Edit., no. 1–2. Los Angeles: Sage

Publications, Inc, 2021. doi: 10.1016/j.lrp.2013.01.002.

- [61] T. Cleff, Applied Statistics and Multivariate Data Analysis for Business and Economics: A Modern Approach Using SPSS, Stata, and Excel. Springer, Cham, 2019. doi: 10.1007/978-3-030-17767-6.
- [62] A. Rawashdeh and M. Bakhit, "Examining the Determinants of Mobile Accounting App Acceptance Among Saudi Wholesalers: An Empirical Investigation Using the UTAUT2," Int. J. Prof. Bus. Rev., vol. 8, no. 10, pp. 01–21, 2023, doi: 10.26668/businessreview/2023.v8i10.3955.