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The Determinant Of Auditor Career Survivability Adopting The Blockchain Technology

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ABSTRACT. This empirical study examined the influence of the auditor perspective on the supportive factors of blockchain technology adoption and the implication on auditory career survivability. The current research population consisted of all auditors in Indonesia, 6.034 individuals. The researchers used the Slovin formula to take 375 respondents. The researchers analyzed the obtained data with a validity test, reliability test, and path analysis. The results found the perception of the auditor about the positive and significant influencing factors toward the blockchain technology adoption and survivability of the auditor's career. Blockchain technology adoption could not moderate the survivability of an auditor's career. The current research novelty dealt with the examined variables, from the qualitative study. Then, the researchers developed the research into quantitative research to provide significant evidence.

Keywords: The Supportive Factors, The Adoption Of Blockchain Technology, The Survivability Of The Auditor's Career

RESEARCH BACKGROUND

In this global era, all trades, both goods and services, from various sectors starting from private to public sectors, get more competitive. Thus, an auditor's service demand increases. Specifically, the quality of financial information is an important consideration to make decisions. The importance of auditor's roles automatically demands all auditors to develop their competencies and professionalism. This effort is useful to meet the users' expectations and necessities, and to establish public trust excellently (Hermann et al, 2015).

The underlying problem of this matter deals with the credibility of the auditors in Indonesia. *Consumer News and Business Channel Indonesia (CNBC)* in 2019 found two famous public accountant offices that received administrative sanctions. The observed causes were the errors in promoting the audit process and the annual financial report of famous corporations in Indonesia, such as PT. Garuda Indonesia Tbk., PT. Tiga Pilar Sejahtera Tbk., and PT. Hanson International Tbk. This condition becomes a serious problem because the problem could make clients lose their beliefs and damage the professional reputation of all auditors.

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This negative matter requires primary principle implementations for the current design and implementation of the auditors' performances. The principles include interoperability, virtuality, decentralization, real-time capability, service orientation, and modularity (Herman et al., 2015). However, these principles have specific challenges and receive positive support recently. One of them is the phenomenon of the digitalization era. This phenomenon provides both positive and dynamic impacts (Krabel et al., 2016). Many surveys showed that most auditors, including in Indonesia, would be disrupted by technology if they did not develop their capabilities. Frey & Osborne (2013) found that the auditor profession would receive digitalization impacts until 93%.

One of the sophisticated technology for auditing purposes is - blockchain technology. Zhang et al. (2017) explain that blockchain is a set of blocks to establish and record inter-party asset ownership. The blockchain members consist of non-individuals and individuals that use the databases simultaneously. They are the nodes connected to the blockchain. Every individual has a similar ledger report (Bible et al., 2017). Blockchain technology, by Brender & Gauthier (2018), triggers a new accounting phenomenon known as disintermediation. This phenomenon occurs with various cost efficiency and provides significant changes for related professions, such as auditor's profession.

The survey of 366 occupation types found that the auditor profession becomes the 21st rank occupation with the impact of blockchain technological disruption (Zhang et al., 2017). Brender & Gauthier (2018) found the effect of blockchain with a percentage of 94% toward 85% auditing activities. Blockchain is predicted to change the auditing activity standards, including the disrupted project opportunity for the auditing profession with a percentage of 76%. Therefore, the financial auditing profession should immediately anticipate various possible conditions due to blockchain technology because this technology is predicted to provide a significant effect, 65% (Faccia et al., 2019).

All auditors must adapt as suggested by *The 9th SOA Asia Pacific Annual Symposium Industry 4.0-Opportunities and Challenges* in 2019. For all public accounting offices, the auditors must: (1) Have the capabilities to use and develop technology; and improve the service quality for the clients (2) Accelerate the digital application development to provide services for the stakeholders (3) Have the efforts to manage the 4.0 industrial revolution and 5.0 society era by improving the skills of being advisors and analysts to prevent being substituted by technologies (4) Broaden the market and promote personal developments to the Southeast Asia countries (Pusat Pembinaan Profesi Keuangan, 2020/The Central Financial Profession Empowerment, 2020).

The decision to adopt a sophisticated technology, based on a previous literature review study by Gero & Suardika (2020), relied on performance and business expectations as the influential factors in supporting blockchain technology adoption. Daluwathumullagamage & Sims (2020) also found other supportive factors, such as attitude, intentional behavior, value creation, blockchain management factor, market mechanism, and stakeholders. All these matters could influence the intention to receive new technology existence.

Many surveys also revealed the implication of blockchain technology toward the survivability of auditors' careers. Faccia et al. (2019) conclude qualitatively that the survivability of auditors' careers must consider the opportunity and threats. The adoption of blockchain technology creates some concepts, such as the mode of assessment, establishment of management, market mechanism creation, and benefits for stakeholders. These concepts lead to the superiority of auditors' careers (Daluwathumullagamage dan Sims, 2020). A survey by Akhter (2018) found that technological advancement occurred due to technological implementation in the auditing field. Thus, the auditor's profession may suffer from disruption. Zhang et al. (2017) found 70% of respondents from 120 internal auditors still doubted the influence of blockchain technology on auditing methods.

The explanations of various phenomena become the novelty formulation for current empirical study. The underlying idea of this quantitative research was a qualitative research design to determine the significant effect of blockchain adoption. The grand theory of this research was the unified theory of acceptance and use of technology; and the contingency theory. The primary formulated objectives were to examine the influence of the auditor's perception of the supportive factors toward blockchain technology adoption and the implication on the auditor's career.

THEORETICAL BASIS

Unified Theory of Acceptance and Use of Technology (UTAUT)

Lescevica et al. (2013) explain that UTAUT is strongly correlated to individual and organizational perceptions about newly related digitalization products. This matter becomes a consideration of a factor to facilitate the operation. The theory is also associated with the belief of applying new technology will prevent difficulties and problems. Eventually, a career matter must consider career improvement support. From the explanations, UTAUT is a theory to reveal technological adoption based on the supporting factors. The factors may include performance expectations, business expectations, socio-culture situations, and facilitating conditions (Gero & Suardikha, 2020).

Williams et al (2015) explain that performance, expectation, and behavioral intention are excellent predictors to influence new technology acceptance. Sitardja (2019) found, based on the UTAUT perception, the significant effects of social and self-efficacy toward utility behaviors. The attitude of applying did not influence the behavior intention to adopt technology and the frequency of the utility. This theory explains social factor has a significant effect. Lescevica et al. (2013) explain that UTAUT directly and significantly determines the intention of one of more individual technological utility. Sitardja (2019) recommends further researchers should include the factors of consciousness and ease of utility.

The Supporting Factor of Block Chain Technology Adoption

Blockchain is a sophisticated technology. The mechanism of this technology is similar to a digitalized ledger to record various transactions from many parties. The technology distributes the information via an Internet connection and in a peer-to-peer manner (Bible et al., 2017). Blockchain is a set of blocks to establish and record inter-party asset ownership (Zhang et al., 2017). Many parties applied this blockchain technology both individually and collaboratively (Magnier & Barban, 2018). This technology has an asymmetrical cryptography and distributive system (Brender & Gauthier, 2018).

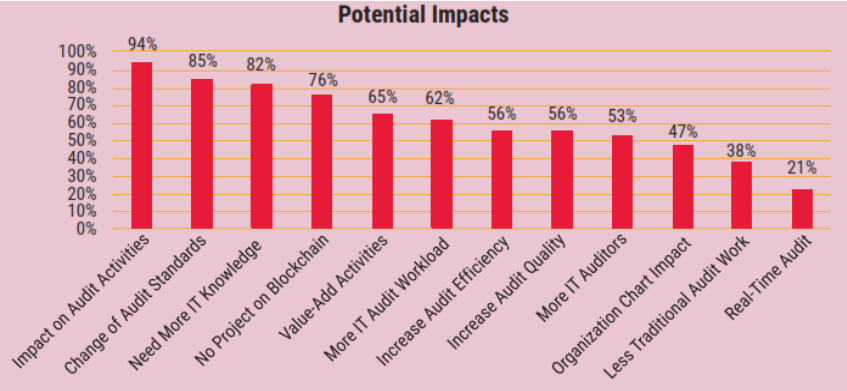
Davidson et al. (2016) and Yeoh (2017) explain that blockchain technology could provide various benefits, such as changing the accounting model, auditing, and many more. A corporation based on the blockchain becomes a new institution that requires economic analysis and a new management mechanism. Thus, many studies consider the importance of government supervision toward blockchain adoption. The effort of adopting blockchain technology provides various cost consequences for verification and network establishment (Catalini & Gans, 2019). Gero & Suardikha (2020) explain the different procedures of traditional technology and blockchain technology. Table 1 shows the differences.

Table 1. The Procedural Differences between Traditional and Block Chain Adoption Mechanism

No.	Procedure	Method	
		Traditional	***Blockchain***
1.	Checking or inspecting the records or documents	Taking the records as samples (randomly) to verify or match the data	Having the capability to check all data in the system
2.	Checking the assets	Checking the inventory physically for any tangible assets directly (walk through; open boxes)	Procuring the inventory necessity with RFID funding (RFID tagging)
3.	Observing	Observing the relevances between the corporate policy and procedure by checking the assigned tasks for the employees	Verifying the job path via blockchain or mining process
4.	Investigating	Asking for the information both orally and in a written manner	Monitoring the process; and Controlling and identifying any violation against the process to examine
5.	Confirming	Verifying the balance of each account	Linking the data transfer with blockchain application
6.	Re-calculating	Verifying by extracting and re-calculating the stated amount in the record	Monitoring all data with automatic calculation (within the preferred interval)
7.	Re-doing	Re-starting the procedure of verification	Replicating all transactions automatically and identifying the excluded transaction
8.	Analysis procedure	Scanning and using the mathematics model and statistics	Screening the data in a real-time manner with continuity and statistic equations

Source: Gero & Suardikha (2020)

UTAUT explains the supporting factors of blockchain technology include performance expectation, business expectation, socio-culture, and facilitating conditions (Gero & Suardhika, 2020). UTAUT also suggests a more debatable nature than those factors, such as the insignificance of intention toward the intention to use technology. Lesvica et al. (2013) explain that this construct consists of attitude toward technology application, self-confidence, and anxiety. Blockchain technology also potentially influences the number of professions related to accounting. Brender & Gauthier (2018) explain the most influential potentials are auditing activity, auditing standards, and cognitive necessity of information technology as illustrated by this figure.



Source: Brender & Gauthier (2018)

Figure 1. The Potential Effects of Block Chain Technology Adoption Toward the Auditing Profession

The Auditor Career Survivability in Digitalization Era

Brender & Gauthier (2018) explain that blockchain technology in this digitalization era transforms the process of financial report audit of an entity to the process of auditing blockchain by auditors. Therefore, current auditors should not focus on technical skills in computer coding and cryptography but also the other non-technical skills or soft skills. Bible et al. (2017) explain that blockchain technology is predicted not to substitute the roles of auditors in an immediate period. However, blockchain technology adoption could improve the investors' trust effectively with or without a capital market system. Any trust decrease could influence the corporate reputation, stock prices, and values of shareholders. Further impacts include high fine tariffs due to the leverage, liquidation, and risk of losing assets. The roles of the financial report demand the auditors to audit the financial report independently and professionally.

The contingency theory explains that these factors could influence corporate differentiations in terms of problem coordination and entity control. Thompson et al. (1991) explain the formality level of an organizational structure, and inter-dependency between the functional area of an organization and other organizations for information exchange could influence the coordinating problem and entity control with the implementation of sophisticated and advanced technology.

The Influence of Perception about the Supporting Factor and the Block Chain Technology Adoption and the Survivability of Auditors' Careers

The features of blockchain technology, including asymmetrical cryptography and distributive system, make blockchain technology superior (Brender & Gauthier, 2018). The potencies are observable in various opportunities, such as high transparency in promoting transactions, automatic transaction verification, and cost efficiency. The auditors may have the opportunity to examine all transactions. These superiorities make blockchain technology demanded in the future (Gero & Suardikha, 2020). Lescevica et al. (2013) explain the effort of adopting sophisticated technology occurs due to some supporting factors, based on the UTAUT perception. This theory explains the analysis of self-acceptance of various products, including digital products. Lescevica et al. (20130 explain that UTAUT becomes a significant factor to make decisions about new technology acceptance.

Brender & Gauthier (2018) explain that the current era requires the skills and technological adaption promoted by all individuals, including auditors. Although auditors and accountants may not have excellent expertise in information technology and do not have specific and relevant training, they must carry out their tasks and follow the given auditing program. Brender & Gauthier (2018) recommend human resources within the field of accounting should have the capability to use sophisticated technology. This effort is useful to improve client satisfaction and to actively compete with other competitors. Thus, auditing careers could survive high new-technology exposures.

Brender & Gauthier (2018) explain the increased users of blockchain technology could alter the current accounting practices. Therefore, further analysis of this profession is useful to facilitate auditors reflecting the future changes and improve accurate skills to encounter and adapt to the changes. Abba et al. (2018) explain that technology directly determines the organizational attribute differences to win the competition. Examples of the attributes are control, authority centralization, regulation formality, procedure, and confidence (Abba et al., 2018).

The researchers used the statements to construct a conceptual framework because the statements were based on theories and received various supports from the previous literature.

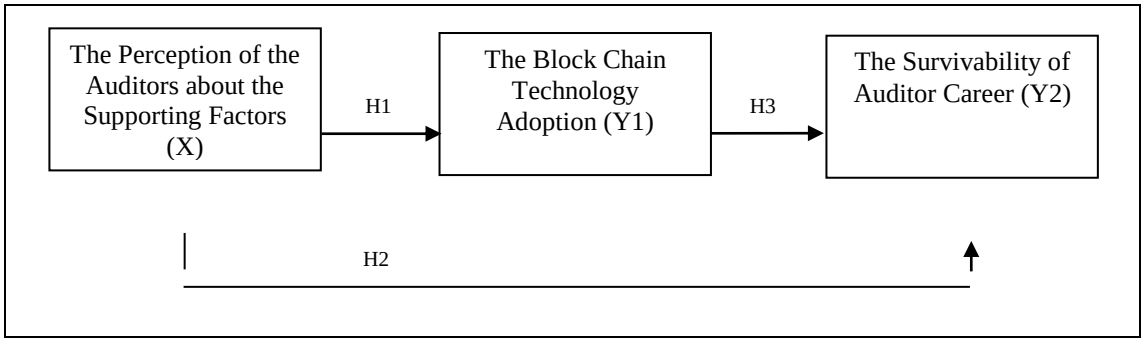


Figure 2. The Conceptual Framework

Remark:

H_1 : The auditor's perception of the supportive factors positively influences the blockchain technology adoption by the auditors.

H_2 : The auditor's perception of the supportive factors positively influences the survivability of the auditor's career.

H_3 : Blockchain technology adoption positively influences the survivability of an auditor's career.

RESEARCH METHODOLOGY

This quantitative research used all auditors in Indonesia as a population, 6.034 auditors (Institut Akuntan Publik Indonesia, 2020/The Public Accountant Institution of Indonesia, 2020)/ The researchers took the samples with Slovin formula, with an alpha value of 5%. The results were 375 respondents. The applied instrument was a closed questionnaire based on some indicators. The researchers used the 5-scale Likert scale to collect the respondents' responses. Then, the researchers scored the collected responses. In the initial step, the researchers examined the instrument's validity and reliability based on the collected responses. Then, the researchers continued the analysis with an indirect effect test. The researchers analyzed the identities and responses descriptively. Then, the researchers used inferential analysis to test the formulated hypotheses.

RESULTS AND DISCUSSION

The Respondents' Identities

The researchers collected the data randomly with Google Forms. Then, the researchers analyzed the respondents' identities, starting from the sex types, ages, educational levels, and years of working. Here are the details of the analysis.

Table 1. The Identities of the Respondents based on the Sex Types and Ages

Sex Types		Ages (Years Old)				Total
		18-35	36-45	46-55	>55	
Males	*Count*	10	33	76	36	155
	%	6.5%	21.3%	49.0%	23.2%	100.0%
	Total	2.7%	8.8%	20.3%	9.6%	41.3%
Females	*Count*	19	122	60	19	220
	%	8.6%	55.5%	27.3%	8.6%	100.0%
	Total	5.1%	32.5%	16.0%	5.1%	58.7%
Total	*Count*	29	155	136	55	375
	%	7.7%	41.3%	36.3%	14.7%	100.0%

Source: the processed primary data source (2023)

Table 1 shows most respondents are females, with 2020 respondents or 58.%. The researchers determined the respondents randomly. Therefore, the result showed that female respondents were more responsive and had higher dominations than males. Most respondents were aged between 36 and 45 years old, with 155 respondents or 41.3%. Of those numbers, most respondents were females. The respondents are at productive ages and had excellent potency to develop their careers.

These respondents should have an immediate contribution to adopting the new and sophisticated technology. Thus, the respondents could survive and maintain their careers longer. Despite the sex types, the respondents had productive ages. The common expectations for the respondent were - to perform excellent auditing tasks, have high analytical capability, and provide accurate recommendations. This expectation could improve the stakeholders' beliefs. Eventually, the improved beliefs of the clients occurred because the respondents found the implementation of new technology helpful for their careers.

Table 2. The Respondents' Identities based on Education and Years of Working

Years of working		The educational level				Total
		Bachelor	Master degree	Doctorate	Others	
<5 years	*Count*	48	14	0	6	68
	%	70.6%	20.6%	0.0%	8.8%	100.0%
	Total	12.8%	3.7%	0.0%	1.6%	18.1%
5-15 Years	*Count*	115	101	4	13	233
	%	49.4%	43.3%	1.7%	5.6%	100.0%
	Total	30.7%	26.9%	1.1%	3.5%	62.1%
16-25 Years	*Count*	31	26	3	3	63
	%	49.2%	41.3%	4.8%	4.8%	100.0%
	Total	8.3%	6.9%	0.8%	0.8%	16.8%
>25 years	*Count*	7	3	1	0	11
	%	63.6%	27.3%	9.1%	0.0%	100.0%
	Total	1.9%	0.8%	0.3%	0.0%	2.9%
Total	*Count*	201	144	8	22	375
	Total	53.6%	38.4%	2.1%	5.9%	100.0%

Source: the processed primary data source (2023)

Table 2 shows the descriptions of the respondents' identities. Most respondents have long years of working, 5-15 years (233 respondents or 62.1%). The respondents also have adequate educational backgrounds: 201 respondents or 53.6% with a bachelor's degree, 144 respondents, or 38.4% with a master's degree, and 8 respondents, or 2.1% with a doctorate. They also have adequate years of work. Therefore, the respondents should have various experiences in solving various tasks as auditors. Thus, the auditors could improve their reputations and trustworthiness toward their clients.

This superiority was associated with excellent educational background. Thus, most respondents had excellent readiness for their practical world and broad knowledge eligibility. These matters led to excellent competence for the auditors to develop their knowledge. In this 4.0 evolution era and 5.0 society era, auditors in Indonesia must develop and improve themselves with the implementation of sophisticated digitalization technology. With the digitalization technology, many auditors expected the technology could support their careers and performance instead of substituting their roles.

The Respondents' Responses toward the Research Variable

The researchers collected responses from 375 respondents about all investigated variables. The researchers examined the variables descriptively and statistically on the variables of supporting factor (X), the blockchain technology adoption (Y1), and the survivability of auditor career (Y2). Here are the descriptive statistic results.

Table 3. The Auditor's Perception of the Supporting Factors

Indicators	Question Items	*Mean*	*Mode*	*Min*	*Max*
Expected performance	X1.1	3.96	4	2	5
	X1.2	4.14	4	2	5
	X1.3	3.97	4	2	5
Expected efforts	X1.4	4.02	4	2	5
	X1.5	4.06	4	2	5
	X1.6	4.08	4	2	5
Attitude	X1.7	4.27	5	2	5
	X1.8	4.05	4	2	5
	X1.9	4.08	4	2	5
	X1.10	4.21	4	2	5
Behavioral intention	X1.11	3.98	4	2	5
	X1.12	4.08	4	2	5
	X1.13	4.26	5	2	5
	X1.14	1.87	2	1	3
	X1.15	1.70	1	1	3

Source: the processed secondary data (2023)

Table 3 shows the variable of supporting factors toward new technology averagely obtains the answers of 'agree' until 'extremely agree.' On the other hand, the lowest answer is 'disagree,' while the highest answer frequency is 'extremely agree.' The auditor perceptions of this variable are: new technology implementation improves the performance results, quick and productive performance, and trust of the clients.

Most respondents also agreed with the notion of applying modern technology to their works. Thus, they could understand the job better, have excellent skills and work easily. Most respondents agreed with the new technology implementation because this technology was a brilliant idea to create a joyful and attractive working atmosphere. The respondents also found the implementation of new technology could make them feel convenient. Based on the behavioral intention, the respondents preferred using sophisticated technology to using ordinary technology. They also explained their public accounting offices already applied this technology.

Table 4. The Respondents' Responses about The Block Chain Technology Adoption

Indicators	Question Items	*Mean*	*Mode*	*Min*	*Max*
Establishing the values	Y1.1	3.61	4	2	5
	Y1.2	3.61	5	2	5
	Y1.3	3.63	4	2	5
	Y1.4	3.75	5	2	5
	Y1.5	3.79	5	2	5
The blockchain management	Y1.6	3.74	4	2	5
	Y1.7	3.77	4	2	5
	Y1.8	3.82	5	2	5
	Y1.9	3.84	5	2	5
	Y1.10	3.81	5	2	5
	Y1.11	3.86	5	2	5
The market mechanism	Y1.12	3.78	5	2	5
	Y1.13	3.83	5	2	5
	Y1.14	3.85	5	2	5
	Y1.15	3.81	5	2	5
	Y1.16	3.87	5	2	5
	Y1.17	3.87	5	2	5
Stakeholders	Y1.18	3.94	5	2	5
	Y1.19	3.84	5	2	5
	Y1.20	3.86	5	2	5
	Y1.21	3.79	5	2	5
	Y1.22	3.78	5	2	5
	Y1.23	3.82	5	2	5
	Y1.24	3.84	5	2	5
	Y1.25	3.87	5	2	5

Source: the processed primary data source (2023)

Table 4 shows the options for the question items based on blockchain technology adoption. The most frequently observed answers are 'agree' and 'extremely agree.' The lowest response frequency is ‘disagree.’ The respondents also shared their responses about the adoption of blockchain technology. Most respondents agreed with the effect of establishing values in the applied technology. They found that the technology could reduce the asymmetrical information; win the market; cut the agency cost; facilitate the asset allotment efficiently; and facilitate the decision-making process. The respondents also agreed with the statement about the management factor of blockchain technology. The positive responses were associated with the privacy feature of the technology, excellent security system, performance quality guarantee, innovation provision, efficiency improvement (workforce and time), and low operational cost.

The respondents also agreed with the statement that the technology could establish the market mechanism. The respondents argued that blockchain technology adoption could provide a merger opportunity, acquisition, accountable financial report, optimal profit management, credible audit result, improved obedience to the regulation, and low financial false. The respondents also agreed with the notion that blockchain influenced the stakeholders, starting from the management, shareholder, creditor, auditor, regulators, investors, clients, and the public community.

Table 5. The Respondents’ Responses about The Survivability of Auditor Career

Indicators	**Item Pertanyaan**	***Mean***	***Mode***	***Min***	***Max***
Opportunity	Y2.1	3.78	4	2	5
	Y2.2	3.77	4	2	5
	Y2.3	3.81	4	2	5
	Y2.4	3.86	4	3	5
	Y2.5	3.84	4	2	5
	Y2.6	3.81	4	2	5
Threat	Y2.7	3.76	4	2	5
	Y2.8	3.82	4	2	5
	Y2.9	3.86	4	3	5
	Y2.10	3.82	4	2	5

Source: the processed primary data source (2023)

Table 5 shows the analysis results of 375 respondents' responses about the survivability of auditor careers. The results show most respondents agree. The lowest frequency is ‘disagree’ while the highest frequency is ‘extremely agree.’ Most respondents

agreed with the adoption of blockchain technology for their careers. The respondents found that the adoption of the technology provided an opportunity to develop their critical thinking skills, improve their jobs as advisors or risk management consultants, and improve their credibility. On the other hand, most respondents agreed with the adoption of blockchain technology threatened their careers. In this case, the auditors realized that they could accept the challenges and adopt the technologies otherwise the technology would eradicate their career and replace their roles.

Validity Test

The researchers examined the instrument validity based on the KMO test and component metrics. The applied coefficient was KMO > 0.5, indicating the samples were adequate. Then, if the coefficient of component metrics was higher than 0.4, the test results indicated all indicators were valid. Here are the applied validity test steps.

Table 6. The Sample Adequacy and Validity Test The Variable of Auditor Perception About Supporting Factor

Indicators	Question Items	*Cut Off*	Step 1		Step 2	
			Results	Conclusion	Results	Conclusion
KMO		0.50	0.885	Adequate sample	0.913	Adequate sample
Component Matrix :						
Expected performance	X1.1	0.40	0.681	Valid.	0.687	Valid.
	X1.2	0.40	0.698	Valid.	0.698	Valid.
	X1.3	0.40	0.724	Valid.	0.718	Valid.
Expected efforts	X1.4	0.40	0.706	Valid.	0.709	Valid.
	X1.5	0.40	0.714	Valid.	0.716	Valid.
	X1.6	0.40	0.786	Valid.	0.787	Valid.
Attitude	X1.7	0.40	0.722	Valid.	0.717	Valid.
	X1.8	0.40	0.734	Valid.	0.733	Valid.
	X1.9	0.40	0.711	Valid.	0.707	Valid.
	X1.10	0.40	0.692	Valid.	0.693	Valid.
Behavioral intention	X1.11	0.40	0.747	Valid.	0.748	Valid.
	X1.12	0.40	0.631	Valid.	0.632	Valid.
	X1.13	0.40	0.763	Valid.	0.769	Valid.
	X1.14	0.40	0.000	Invalid		
	X1.15	0.40	0.000	Invalid		

Source: the processed secondary data (2022)

Table 6 shows the validity test of the auditor's perception of the supporting factor within two steps. The first obtained KMO is 0.885 > 0.50. The result indicates the samples, 375 respondents, are adequate to represent the population members. On the other hand, in the validity test, the results show two items are invalid, X1.14 and X1.5. These items have coefficients of component metrics lower than 0.40 (0.00 < 0.40). Based on the table, the invalid items are X1.14 about the possibility of the respondents using the new technology for

the next 12 months; and X1.5 about the situation of the respondents using the new application for the next 12 months. The results indicate that the question items are invalid. Thus, the researchers could not use the items to measure the auditor's perception of the supporting factors. Eventually, the researchers excluded the question items. The next step was promoting the second validation test with thirteen question items within the variable of auditor perception about the supporting factor. In the second step, the obtained KMO was more than 0.50 (0.885 > 0.50). Thus, the samples were adequate to conclude. Then, the researchers examined the 13-question item validity of the variable. The obtained results were all component matrix coefficients were higher than 0.40. The results indicated all items were valid and inapplicable as the reference to examine the data empirically.

Table 7. The Sample Adequacy and Validity Test of Block Chain Technology Adoption

Indicators	Question Items	*Cut Off*	Results	Conclusion
KMO		0.50	0.923	Adequate sample
Component Matrix :				
Establishing the values	Y1.1	0.40	0.506	Valid.
	Y1.2	0.40	0.609	Valid.
	Y1.3	0.40	0.517	Valid.
	Y1.4	0.40	0.538	Valid.
	Y1.5	0.40	0.582	Valid.
The blockchain management	Y1.6	0.40	0.556	Valid.
	Y1.7	0.40	0.587	Valid.
	Y1.8	0.40	0.562	Valid.
	Y1.9	0.40	0.518	Valid.
	Y1.10	0.40	0.489	Valid.
	Y1.11	0.40	0.541	Valid.
The market mechanism	Y1.12	0.40	0.575	Valid.
	Y1.13	0.40	0.606	Valid.
	Y1.14	0.40	0.534	Valid.
	Y1.15	0.40	0.488	Valid.
	Y1.16	0.40	0.579	Valid.
	Y1.17	0.40	0.559	Valid.
Stakeholders	Y1.18	0.40	0.625	Valid.
	Y1.19	0.40	0.467	Valid.
	Y1.20	0.40	0.662	Valid.
	Y1.21	0.40	0.553	Valid.
	Y1.22	0.40	0.658	Valid.
	Y1.23	0.40	0.613	Valid.
	Y1.24	0.40	0.630	Valid.
	Y1.25	0.40	0.587	Valid.

Source: the processed primary data source (2023)

Table 7 shows the results of the sample adequacy test and the validity test toward the adoption of blockchain technology. The researchers measured the variables with 25 question items. All obtained KMO coefficients were higher than 0.50 (0.923 > 0.50). The size of the sample was adequate to represent the research population. Then, the researchers examined the

validity of all items. The results found the component matrix coefficients were higher than 0.40, indicating excellent validity of 25 items.

Table 8. The Sample Adequacy and Validity Test of the Survivability of Auditor Career

Indicators	Question Items	*Cut Off*	Results	Conclusion
KMO		0.50	0.926	Adequate sample
Component Matrix :				
Opportunity	Y2.1	0.40	0.729	Valid.
	Y2.2	0.40	0.777	Valid.
	Y2.3	0.40	0.694	Valid.
	Y2.4	0.40	0.803	Valid.
	Y2.5	0.40	0.734	Valid.
	Y2.6	0.40	0.774	Valid.
Threat	Y2.7	0.40	0.763	Valid.
	Y2.8	0.40	0.786	Valid.
	Y2.9	0.40	0.736	Valid.
	Y2.10	0.40	0.785	Valid.

Source: the processed secondary data (2023)

Table 8 shows the sample adequacy and validity test results of auditor career survivability. The researchers found 10 question items had a KMO coefficient higher than 0.50 (0.926 > 0.50). From this perspective, all 375 respondents met the sample adequacy for further tests. The result showed that the obtained component matrix coefficients were higher than 0.40. Thus, the researchers concluded all items of the variable were valid. Based on these results, all items were applicable as references for further research tests.

Reliability Test

The researchers examined the reliability with the Cronbach Alpha test. Here are the results of the data test.

Table 9. Reliability Test

Variable	*Cut Off*	*Cronbach Alpha*	Conclusion
The auditor's perception of the supporting factor	0.70	9.921	Reliable
The blockchain technology adoption	0.70	9.912	Reliable
The survivability of auditor career	0.70	9.918	Reliable

Source: the processed primary data source (2023)

Table 9 shows all research variables obtain the coefficients of Cronbach Alpha higher than 0.70. The results indicated that the responses to 13 question items of auditor perception about supporting factors were reliable, 12 question items of auditor perception about the hindering factors were reliable, 25 items of the blockchain technology adoption were

variable, and 10 items of auditor career survivability were reliable. The results showed that the responses of the respondents were trusted and applicable for further examination.

The Model Test

Table 10 shows the data analysis results obtained from the significant values of F and R square.

Table 10. The Model Test

No.	The Regression	Test	The Model Test	
			F	*Adj. R^2*
1	The sub structure I	The auditor's perception of supporting factors (X1) toward the blockchain technology adoption (Y1)	0,000	0,564
2	The sub structure II	The auditor's perception of the supporting factor (X1) and the adoption of blockchain technology (Y1) toward the survivability of the auditor career (Y2)	0,000	0,445

Source: the processed secondary data (2023)

Table 10 shows the test of sub-structure I obtain a significant F value of 0.000. The result indicated that the auditor's perception of the supporting factor could explain the blockchain technology adoption significantly. The coefficient of the adjusted R-square obtains a value of 0.564. The result indicates the auditor's perception of supporting factors could explain the blockchain technology adoption. Then, the remaining percentage, 43.6% of the blockchain technology adoption in Indonesia, came from other unobserved factors.

Then, the result of the sub-structure II test obtained a significant score of 0.000. The result indicated that the auditor's perception of the supporting factor and the blockchain technology adoption could explain the survivability of the auditor's career significantly. The obtained adjusted R-square was 0.445. The result indicated that the auditor's perception of supporting factors and blockchain technology could explain the survivability of the auditor's career with a percentage of 44.5%. The remaining percentage came from other dominating factors toward auditor career survivability.

The Model Equation Analysis

This table shows the establishment of the model equation based on the regression coefficient calculations of both sub-structures.

Table 12. The Regression Coefficient of Sub-Structure I and II

No.	The variable	test		β
		Independent	Dependent	
1	H_1	The auditor's perception of the supporting factor (X1)	Blockchain technology adoption (Y1)	0,752
3	H_2	The auditor's perception of the supporting factor (X1)	The survivability of auditor career (Y2)	0,670
5	H_3	Blockchain technology adoption (Y1)		-0,010

Source: the processed secondary data (2023)

Table 12 shows the regression model based on the arrangement of sub-structure I and II.

$$Y_1 = 0{,}752X_1$$

$$Y_2 = 0{,}670X_1 - 0{,}010Y_1$$

The result shows that the auditor's perception of the supporting factor positively influences the intention of the auditors to adopt blockchain technology. The result indicated high supporting factors influenced the new colony's existence and increased the blockchain technology adoption by the auditors in Indonesia. Then, the auditor's perception of the supporting factors of the new technology could improve the survivability of the auditor's career. Contradictorily, high blockchain technology adoption negatively influenced the survivability of auditor careers in Indonesia.

The Hypothesis Test and Discussion

The applied hypothesis test was at a significant level of 95%. Table 12 shows the data processing results.

Table 12. The Hypothesis test of Sub-Structure I and II

No.	Variables		t_{table}	Sig. t	Conclusion
	Independent	Dependent			
1	The auditor's perception of the supporting factor (X1)	Blockchain technology adoption (Y1)	22,009	0,000	Accepted
2	The auditor's perception of the supporting factor (X1)	The survivability of auditor career (Y2)	11,466	0,000	Accepted
3	Blockchain technology adoption (Y1)		-0,014	0,997	Denied

Source: the processed secondary data (2023)

The Influence of Auditor Perception of the Supporting Factor Toward the Block Chain Technology Adoption by the Auditors

Table 13 shows the data processing of the hypothesis test, including the influence of auditor perception about the supporting factors of blockchain technology adoption. The obtained r-count was 22.009 with a significant level of 0.000. The result indicated the auditor's perception of the supporting factors positively influenced the blockchain technology adoption. Thus, the result accepted the hypothesis. The result was also observable when the implementation of sophisticated technology provided various supports. Thus, the intention of the auditors to adopt blockchain technology increased.

The result was also in line with the UTAUT theory. Gero & Suradikha (2020) explain that individuals with the perception of new technology as supporting factors (for both the expected performance and efforts) could improve their individual and organizational intentions to immediately adopt the sophisticated technology. This matter happened because they found that technology adoption could support their performances and professions. Lescevica et al (2013) and UTAUT theory also explain that the new technology acceptance becomes the consideration of various supporting factors. Thus, the implementation provides positive effects. Daluwathumullagamage & Sims (2020) also found the supporting factors of blockchain technology adoptions, such as attitude and behavioral intention.

The Influence of Auditor Perception on the Supporting Factors of the Auditor Career Survivability in Indonesia

Table 13 shows the auditor's perception of the supporting factors obtained a t-count of 11.46 with a significant level of 0.000. The result indicated the auditor's perception of the supporting factors significantly and positively influenced the auditor's career survivability. Thus, the result accepted the hypothesis. The result proved that the auditors in Indonesia perceived the sophisticated technology, blockchain technology, as a supporting factor toward their performance and career. The efforts of learning the new technology implementation went along with the expectations to improve the performance and reputation. Eventually, the efforts made the clients believe in the auditor's services. Thus, the auditor services would not be completely substituted by the technology.

The UTAUT theory explains that the supporting factors become a significant determinant of the technological implementation and the effort to maintain career survivability. The underlying condition is the perception of the superiority and facility of using the new technology. The other factor is the individual belief that the implemented

technology could make the individuals free from various job hindrances (Lescevica et al., 2013). Brender & Gauthier (2018) also found that auditors had to adopt new technology to win the competition in this digitalization era. The establishment of clients' beliefs is important to ensure the existence of the auditors. Faccia et al. (2019) also found that the supporting factors of new technology implementation provided a positive influence on the auditor's career improvement.

The new technological implementation is a primary necessity for all professions, including auditors. Blockchain technology also requires technical skills that become a priority factor in Indonesia. The objective of the technology implementation is to explore the hidden potential (Brender & Gauthier, 2018). The implications of blockchain technological implementation as the supporting factors have broad opportunities to maintain the careers amid industrial revolution (Faccia et al., 2019).

Brender & Gauthier (2018) explain that contingency theory could explain the findings about new technology implementation. The underlying argument is - an entity must promote excellent control to keep and improve the integrity within the accounting information perspective. These matters apply to the implementation of modern digitalization. Auditors with high skills based on the era development would meet the client's expectations and improve the belief. Eventually, the existences of the auditors remain unchanged and cannot be replaced by technology in an immediate period.

The Influence of Block Chain Technology Adoption and the Survivability of Auditor Career in Indonesia

Table 13 in the findings shows the t-count of -0.004 with a significant level of 0.997. The result denies the formulated hypothesis. Thus, blockchain technology adoption did not influence the survivability of an auditor's career. The path analysis also found that blockchain technology adoption could not mediate the auditor's perception of the supporting factors and the survivability of the auditor's career. The test result indicated that blockchain technology could not easily substitute auditor careers in Indonesia because sophisticated technology could not completely replace human performance. The examples are analytical skills, recommendations, reputations, and various attributive factors.

Many previous studies also found that any sophisticated technology still had setbacks or drawbacks. Thus, the users had to consider the implementations or the adoptions. Davidson et al. (2016) explain that sophisticated technology adoption, such as blockchain, may apply new mechanism management. However, the government must have a specific

monitoring mechanism for the applied technology to prevent any financial crimes, such as money laundering. Yeoh (2017) also explains that blockchain technology does not have the regulation certainty issued by the government. Thus, many irresponsible parties commit crimes on their financial reports. This matter makes blockchain technology not attractive. On the other hand, auditors must keep and maintain their positions from sophisticated technology.

Catalini & Gans (2019) also found that blockchain technology adoption provided various consequences, such as the costs of verification and network. These matters make certain corporations, institutions, or individuals must consider the decision of adopting technology. The same matter goes for the accounting field. Gero & Suardikha (2020) also found that the superiority of blockchain technology might lead to various challenges. The examples were the secure data stores that might not be free from fraudulence. Any errors in delivering the virtual money cannot be terminated immediately. Bible et al. (2017) believe that blockchain technology will not substitute auditors' roles in an immediate period.

CLOSING

Conclusion

The researchers concluded that the auditor's perception of the supporting factor positively influenced the intention of adopting blockchain technology and the improvement of auditor career survivability. On the other hand, blockchain technology adoption did not influence or mediate the survivability of the auditor career. These results were in line with the UTAUT theory.

The Managerial Contribution

These empirical study results are useful for Public Accounting Offices. Based on the conclusion, the implementation of technology is important for auditors' jobs but the applied technology should not always deal with blockchain technology. Therefore, the managers of public accounting offices in Indonesia must not be in a rush to apply blockchain technology due to the high cost of the investment.

The Theoretical Contribution

This research supports the UTAUT theory and enriches the current field insight. This research also contributes to the collaboration of the theories of accounting, auditing, and digitalization.

Research Limitation

The research limitations included the inaccuracy of the research subjects because the researchers took the samples randomly. Therefore, the respondents' responses might be biased moreover the respondents might not have excellent cognition about blockchain technology.

Research gap

Future researchers should fill the gaps, such as applying a purposive sampling technique to select the samples. The high percentages of unobserved factors on the auditor career survivability could be a new insight for future researchers to examine. The researchers also encourage future researchers to examine other variables.

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