LOCUS JOURNAL: Research & Devotion
Volume 4 No. 12 December 2025
E-ISSN 2829-7334| P-ISSN 2829-5439
Homepage: https://locus.rivierapublishing.id/index.php/jl

Perspective on Blockchain Adoption Readiness at PT Soko Rindam Utama

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Abstract:
Blockchain and smart contract technologies are recent digital innovations that offer advantages in terms of security, efficiency, and transaction effectiveness by eliminating the need for third-party intermediaries through automation mechanisms. The adoption of these technologies requires an in-depth analysis of various factors influencing organizational readiness. This study aims to analyze the readiness model for blockchain adoption at PT Soko Rindam Utama by examining variables such as trialability, security, complexity, innovativeness, cost, facilitating conditions, market dynamics, regulatory support, and partner readiness. A quantitative research method was employed, with data collected through questionnaires distributed to all 35 respondents using a saturated sampling technique. The data were analyzed using structural equation modeling–partial least squares (SEM-PLS). The findings are expected to provide a comprehensive understanding of the key factors influencing blockchain adoption readiness within the organization and to serve as a basis for future strategic decision-making.

Keywords: Adoption, Blockchain, Readiness Model, And Smart Contracts

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INTRODUCTION

Natural Resources (SDA) is a gift from God Almighty that can be enjoyed by humans. Natural Resources take various forms, from goods, objects, phenomena, atmospheres, gases/air, water, and so on. God created various kinds of resources for the sustainability and welfare of mankind. The variety of Natural Resources in Indonesia is very abundant from mining, plantations, and many more. Natural resources managed by the government must be carried out in the most effective and environmentally friendly way, the government must also pay attention to the community so as not to lose their rights to government-managed Natural Resources in Indonesia (Park et al., 2019; Kumar et al., 2020; Sooprayen et al., 2024).

One of the uses of natural resource conversion that is widely used by the Indonesian people is electricity where with electricity many human activities can be facilitated, for example living the needs of household furniture, office sustainability, and many other jobs that are made easier by electricity (Bozarth & Handfield, 2020; Pujawan & Mahendrawathi, 2024; Wijaya, 2016). As one of the existing sources of electricity, the Steam Power Plant or commonly called PLTU Batubara is the government's handle in the provision of electricity in Indonesia. In addition to the low cost, with geological factors in Indonesia, which has a lot of coal supplies, it is one of the reasons why coal-fired power plants are one of the largest

electricity supports in Indonesia (Sekaran & Bougie, 2020; Hair et al., 2019; Hajaroh & Rehanah, 2022).

Regarding electricity, the resource can also serve to make it easier for humans to communicate. Many service provider companies in the form of providers need the services of electrical installation providers to support gadget signals (Chawla & Joshi, 2020; UTAUT-based studies; Taherdoost, 2022). The relationship between electricity needs and the provider is electricity as a power support from the tower provider. The tower used by the provider really needs a lot of electricity. So it is very related to one of the uses of Natural Resources. In relation to towers, there are several types of towers used in Indonesia, such as those that are widely spread throughout Indonesia. The tower can be dubbed as the BTS (Base Transceiver Station) Tower. BTS has 3 types of towers, namely:

1. Tower 4 feet (Rectangular Tower)
2. Tower 3 feet (Triangle Tower)
3. Tower 1 feet (Pole)

BTS tower variants also vary from 40 meters high to 75 meters depending on their needs and uses (batikominfo.id, 2019). Indonesia is one of the countries in Asia with the largest number of towers. One tower in an area of Indonesia can serve up to 2,400 people, with a very large reach compared to other Asian countries, namely 16.4 km², with that Indonesia is also superior to countries such as Vietnam where each tower can only reach 3.5 km² and only accommodate 1,102 people (digitaltransformation.co.id, 2022). The following is data showing the number of towers per population and area (km2) served by towers in Indonesia:

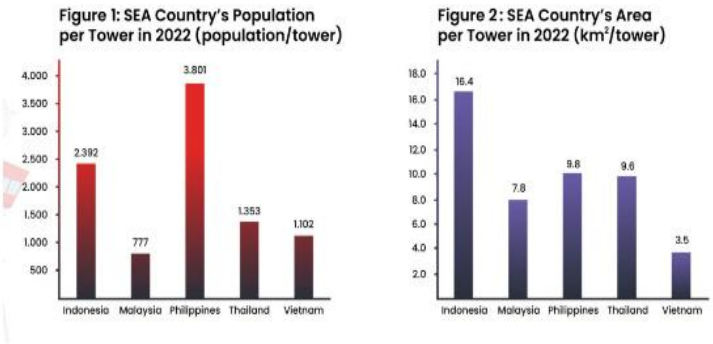

Figure 1. Graphs Tower per Population and Area
Source: *digitaltransformation.co.id (2022)*

Seeing the large number of gadgets uses in Indonesia, therefore providers strive to always increase towers to maintain customer satisfaction, and the many needs for tower construction in Indonesia, providers need the services of electrical contractors. According to Apriyanti, et al (2021), an electrical contractor is one of the service providers regarding new installation, power replacement, substation installation and so on. This electricity contractor also collaborates with PLN to provide these services.

One of the electricity contractor service companies, namely PT. Soko Rindam Utama. This company is one of the electrical contractors that works with several lines of providers. This company also focuses on the advancement of telecommunications in Indonesia, but PT.

Soko Rindam Utama also has its own problem, namely the late payment by the provider company. Late payment (bad credit) or default according to Khairany, et al (2023) is the non-fulfillment of the target payment deadline plan that has been set in the contract agreed upon by both parties. The problem that PT. Soko Rindam Utama has is the late payment from 2020 to 2024. Therefore, it is interesting to analyze the causes of default at PT. Soko Rindam Utama. The business process flow of PT. Soko Rindam Utama is as follows:

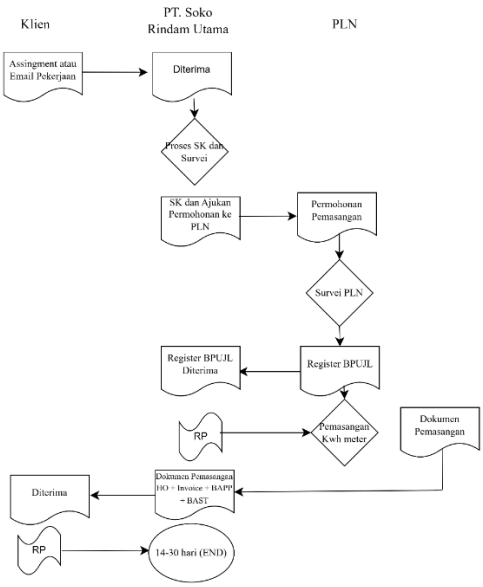

Figure 2. Business Process Flow at PT. Soko Rindam Utama
Source: *PT. Soko Rindam Utama (2024)*

Based on Figure 2, the client's workflow, PT. Soko Rindam Utama, and PLN in detail are as follows:

1. The existence of assignments or emails of work or projects from the client;
2. Then, the issuance of the Decree (Power of Attorney) for connection;
3. The Soko Rindam PIC team will survey the location (partners);
4. Submit an application for electricity installation to PLN;
5. PLN will survey and issue survey results;
6. PLN will issue the BPUJL register and connection fee;
7. BPUJL Payment from Soko Rindam to PLN
8. Execution of the KKHH meter installation work. The completed work will be issued PLN documents;
9. The work is completed, the Soko Rindam admin will email the client for job information and do a hand over (HO)
10. After the HO, BAPP (Work Completion Minutes) will be issued to the region of each client project;
11. After the BAPP is approved by the client, the BAST (Handover Minutes) will be issued to the client and input in the client's PSS (Project Status System) system;

12. After the BAST is approved, Soko Rindam will submit an MCV (Material Control Voucher) that explains the material expenses as the basis for sending invoices to clients. Then send the invoice to the client;
13. Clients will make payments within an estimated 14-30 days.

Based on this flow, there are several findings that cause many clients to default. First, the lack of completeness of documents when submitting invoices, data collection errors when collecting invoices, clients who have not received hard copy documents, and so on. In addition, several times it happens because the company has asymmetrical information about the client's financial stability. It can be summarized that the client's problem of defaulting to PT. Soko Rindam Utama is related to procedural errors, inefficiencies, and transparency. These three things will be monitored if done manually. Automation is needed as a measure of efficiency in work (Ashmouri, et al., 2023).

Blockchain Nowadays it is getting more attention in various sectors (Balasubramanian, et al., 2021). The research of Barasubramanian, et al departed from the unrest of the problems and inefficiencies of the hospital work process in the UAE (United Arab Emirates) so that it proposed blockchain which can improve the effectiveness and efficiency of the hospital's work. Blockchain referred to as distributed ledger tchnology (Balasubramanian, et al., 2021), It is a technology used to record and store data in a decentralized manner in a computer network. This data is stored in the form of interconnected blocks (referred to as Chain), and each block contains transaction information or data that has been verified by the network. Once the data is entered into the blockchain, such information is permanent and cannot be changed without the consent of most participants in the network (Chen, He, & Chu, 2022).

The use of blockhain can improve security, privacy, management, and many third parties can be trimmed so that it can save money (Ashmouri, et al., 2023). Blockhain has a feature called smart contract (SC). SC is a computerized transaction protocol that can be used to execute contracts without such information being known to other parties so that only the system can read and execute the contract. According to Lin, et al (2022), smart contracts are technologies designed to verify or execute information-based contracts that allow trustworthy transactions to occur without a third party, smart contracts can also be tracked for efficient security protocols. According to Kushwaha, et al (2022) smart contracts are a part of Blockchain technology where this technology is based on a decentralized peer-to-peer-peer (P2P) network that allows users to store their data globally on thousands of computers that cannot be formatted. The following are the company's problems that can be prevented by the implementation of blockchain and SC based on the results of discussions with company owners:

Table 1. The problem of PT. Soko Rindam Main and How It Works Smart Contract

No	Problems	How Smart Contracts Work
1	Lack of completeness when submitting invoices	The system will automatically refuse to generate invoices when the documents are incomplete
2	Data collection errors during invoice billing	The system will automatically give approval when both parties agree to the transaction

No	Problems	How Smart Contracts Work
3	Client has not received a hard copy	Documents can be reprinted based on data in the blockchain system that both parties have already agreed to
4	Asymmetric information on financial stability	A smart contract can contain the amount of money deposited by the client or access to the client's bank statement if there is agreement between both parties. When a number of indicators are entered, the system automatically rejects or accepts the transaction

Based on table 1, the problems that occur in the company can be overcome if the company adopts blockchain. Smartcontract is considered to be able to correct weaknesses and problems in the company such as automatic invoicing if it meets the transaction criteria that have been set, authorizing transactions without involving humans so that efficiency occurs, and reducing asymmetric information that causes losses to one party (Firmansyah, 2019; Vleck, 2022; Sugiharto & Yusuf, 2020). However, this technology is fairly new, including in Indonesia. Derivatives of technology blockchain is the currency of krypto. Technology-related blockchain There are still many people who do not understand it (Ashmouri, et al., 2023; Balasubramanian, et al., 2021). Although there have not been many studies that have analyzed blockchain as a transaction and financial system, especially in small-scale companies, researching blockchain It can still be said to be interesting because this research can contribute to the readiness of companies or various institutions in Indonesia to keep up with the times (Chen, He, & Chu, 2022). The important role of technical, institutional, and environmental aspects must be considered as factors influencing the adoption of technology. Initial observations on infrastructure mapping that affects revenue blockchain at PT. Soko Rindam Utama is:

Table 2. Infrastructure of PT. Soko Rindam

Readiness Factor	Information
Technology	1. Antivirus: McAfee and Smadav paid 2. RAM: 8 GB 3. SSD: 1 TB 4. Windows: 11
Milieu	Partners and competitors can be pressured to use blockchain not much Government Regulation No. 5 of 2021 concerning Risk-Based Business Licensing, regulates: 1. Regulating the licensing of the use of electronic systems that are more transparent and integrated, including blockchain 2. However, this PP does not explain the infrastructure needed for blockchain implementation Regulating supervision by the Government. Decentralization is the system, but the aspect of consumer protection remains a concern of the Government.

Based on table 2, the derivatives of the observed factors are trialability, security, complexity, innovativeness, facilitating conditions, market dynamics, regulatory support, and partner readiness (Ashmouri, et al., 2023). Based on the study of Ashmouri, et al., (2023), only complexity has no effect on interest in adopting blockchain so it was issued in this study. Another thing to consider in the adoption of a new technology besides its benefits is the costs

incurred (Ashmouri, et al., 2023). Successful technology adoption occurs when the benefits received outweigh the costs incurred. Some of the reasons for using the theory developed by Ashmouri, et al., (2023) to measure the factors influencing blockchain adoption in PT. Soko Rindam Utama is:

Table 3. An Initial Review of Adoption Factors Blockchain at PT. Soko Rindam Utama

Adoption Factors	Information
Trialability	Blockchain technology is new in companies and can be considered for use
Security	Blockchain is a distributed ledger technology where each block is interconnected and immutable. This can improve the security of the company's transactions, especially in the analysis of transactions and the development of the client's finances so that successful transactions must be validly verified
Cost	The cost of blockchain implementation is high and complex because it requires software, security application tools, and consumes considerable electrical resources.
Innovativeness	Blockchain offers a system without a third party such as an admin so it is considered innovative because it does not require many humans to authorize.
Facilitating conditions	a. The company currently has a paid security application with the latest software that makes it possible for blockchain adoption b. The company's current problem is with human resources who are less familiar with technology so this can then become a challenge.
Market dynamics	Increasing understanding and need for cryptocurrencies so that the blockchain issued by the crypto can be used by companies to create blocks/accounts/
Regulatory support	a. Government Regulation No. 5 of 2021 regulates licensing regarding the use of blockchain so as to provide a guarantee of consumer protection b. Not fully setting minimum technology infrastructure recommendations
Partner readiness	The readiness of the company's partners has not been tested

The initial review of blockchain adoption factors refers to the theory of Ashmouri, et al., (2023) describing the benefits, risks, and challenges in its application if carried out at PT. Soko Rindam Utama. This study aims to analyze and test how the adoption of blockchain technology is expected to solve the problem of default and late payment in the company PT. Soko Rindam Utama. This research is expected to contribute to developing the company PT. Soko Rindam Utama in the era of digitalization and provides solutions related to the problem of default and late payment experienced by PT. Soko Rindam Utama.

RESEARCH METHOD

This study employed a quantitative approach. The researcher did not intervene with the data, as it was collected directly from respondents, managed, and analyzed. Based on the unit of analysis, the research used individual analysis, referring to the smallest entity focused on—the employees' level of readiness to adopt blockchain technology (Sekaran & Bougie, 2020). Based on the researcher's background, a non-contrived setting was used in a normal operational environment (Ansori, 2020). Based on implementation time and data processing, the study adopted a cross-sectional approach, conducted in a single period. Finally, based on the model,

the study utilized the Structural Equation Model (SEM) (Sekaran & Bougie, 2020). A summary of the study's characteristics appears in Table 4.

Table 4. Research Characteristics

No	Research Characteristics	Kind
1	Based on Approach	Quantitative
2	By Purpose	Conclusive
3	Based on Researcher Involvement	Not intervening in data
4	Based on Unit of Analysis	Individual
5	Based on the Researcher's Background	Non-contrived
6	Based on Implementation Time	*Cross sectional*
7	Based on Research Model	SEM

The primary data consisted of an initial survey, questionnaire responses from respondents regarding the readiness model and blockchain adoption factors, non-participant observations at the research site, and documentation of relevant findings. Secondary data included the company profile of PT Soko Rindam Utama, its business process flows, books, journals, websites, and other relevant sources.

Data were collected using questionnaires and documentation strategies. Questionnaires comprised written questions based on the operationalization of variables such as the readiness model and blockchain adoption factors; they served as the primary instrument and were distributed to employees of PT Soko Rindam Utama (Sekaran & Bougie, 2020). Documentation involved written notes, images, company records, audiovisual materials, and electronic sources like journals and books that supported the research (Sekaran & Bougie, 2020).

This study employed Structural Equation Modeling (SEM) via the Smart PLS program for PLS-SEM analysis. PLS-SEM was suitable for predictive research and theory development, as it tested construct relationships without requiring strong theoretical foundations or strict parametric assumptions (Hajaroh & Rehanah, 2022). Evaluation proceeded in two stages: the measurement model (assessing validity and reliability through item reliability, construct reliability, Average Variance Extracted, and discriminant validity) and the structural model (examining path coefficients, significance, and explanatory power via R^2 values) (Hajaroh & Rehanah, 2022).

RESULTS AND DISCUSSION

Research Results

The Influence of Trialability → Adoption Readiness (Attitude Towards Blockchain, Trust, and Intention to Use)

Trialability has no significant effect on adoption readiness measured using the attitude towards blockchain (positively correlated), trust (negatively correlated), and intention to use (positively correlated). This is shown by the statistical T value of the attitude towards blockchain of 1.778 < 1.96 with a value of p value of 0.076 > 0.05, then against trust by 1,727 < 1.96 and p value 0.085 > 0.05, and finally to intention to use is 0.014 < 1.96 with p value by 0.989 > 0.05. That is, for now employees feel that if a trial is carried out (triabalability)

blockchain has not attracted employees to use, provides a sense of security, and influences the desire to use technology blockchain.

The Influence of Security → Adoption Readiness (Attitude Towards Blockchain, Trust, and Intention to Use)

Security had no significant effect on adoption readiness as measured using the variables attitude towards blockchain, trust (negatively correlated), and intention to use. This is shown by the statistical T-value for attitude towards blockchain of 0.481 < 1.96 with a p value of 0.630 > 0.05, then for trust of 0.978 < 1.96 and p value of 0.328 > 0.05, and finally for intention to use is 0.789 < 1.96 with a p value by 0.430 > 0.05. This means that the potential security provided by blockchains such as smart contracts or hashes has not been able to provide interest, trust, and desire to use.

The Influence of Cost → Adoption Readiness (Attitude Towards Blockchain, Trust, and Intention to Use)

Cost generally has no significant effect on adoption readiness as measured using trust (negatively correlated) and intention to use variables, except for the initial attitude of users. This is shown by the statistical T-value for trust of 1.634 < 1.96 and p value of 0.103 > 0.05, and finally for intention to use is 0.892 < 1.96 with a p value of 0.373 > 0.05. This means that the amount of costs required for the implementation of blockchain has not been able to provide interest, trust, and want to use blockchain. The only significant effect is on the attitude towards blockchain with a statistical T of 2.262 > 1.96 with a p value of 0.024 < 0.05. This means that even though users consider the cost of implementing the technology, because it is not yet familiar, blockchain technology lacks trust and desire to adopt it.

The Influence of Innovativeness → Adoption Readiness (Attitude Towards Blockchain, Trust, and Intention to Use)

Innovativeness has a significant and positive effect on adoption readiness as measured using the attitude towards blockchain and intention to use variables, but has a positive and insignificant effect on adoption readiness as measured using trust. This is shown by the statistical T-value for attitude towards blockchain of 2.632 > 1.96 with a p value of 0.009 < 0.05, then for intention to use is 2.722 > 1.96 with a p value of 0.007 < 0.05, while for trust it is 0.305 < 1.96 with a p value by 0.760 > 0.05. Employees consider that the presence of blockchain technology is an interesting new innovation, but they do not know the level of security so they are less able to provide a sense of trust.

The Influence of Facilitating Conditions → Adoption Readiness (Attitude Towards Blockchain, Trust, and Intention to Use)

Facilitating conditions had a significant effect on adoption readiness as measured using the intention to use variable, but did not have a significant effect on adoption readiness as measured using attitude towards blockchain and trust. This is shown by the statistical T-value for intention to use of 2.590 > 1.96 with a p value of 0.010 < 0.05, while for trust it is 1.176 < 1.96 with a p value of 0.240 > 0.05 and for attitude towards blockchain of 0.722 < 1.96 with

a p value by 0.470 > 0.05. Employees consider that the knowledge and resources owned by the company where they work are considered capable of adopting blockchain technology, but neither employees nor companies have shown interest and trust to use the technology.

The Influence of Market Dynamics → Adoption Readiness (Attitude Towards Blockchain, Trust, and Intention to Use)

Market dynamics have a significant effect on adoption readiness as measured using trust and intention to use variables, but do not have a significant effect on adoption readiness as measured using attitude towards blockchain. This is shown by the statistical T-value for trust of 3.029 > 1.96 with a p value of 0.002 < 0.05 and intention to use of 2.980 > 1.96 with a p value of 0.003 < 0.05, while for attitude towards blockchain of 0.076 < 1.96 with a p value by 0.940 > 0.05. Employees consider the pressure of the development of the use of new technology to make companies should follow so as not to be outdated, but the attitude of employees and companies to date has not shown interest, even though there is potential to use if there is environmental pressure to use.

The Influence of Regulatory Support → Adoption Readiness (Attitude Towards Blockchain, Trust, and Intention to Use)

Regulatory support has a significant and positive effect on adoption readiness as measured using the variables of attitude towards blockchain, trust, and intention to use. This is shown by the statistical T-value for attitude towards blockchain of 3.381 > 1.96 with a p value of 0.001 < 0.05, then for trust of 2.048 > 1.96 and p value of 0.038 < 0.05, and finally for intention to use is 2.306 > 1.96 with a p value by 0.022 < 0.05. External factors in the form of government support in terms of legal, assistance, or financial affect the attitude of employees and companies in using, as well as being able to provide a sense of security because there is clarity about legal certainty.

The Influence of Partner Readiness → Adoption Readiness (Attitude Towards Blockchain, Trust, and Intention to Use)

Partner readiness has a significant and positive effect on adoption readiness which is measured using the variables attitude towards blockchain and trust. This is shown by the statistical T-value for attitude towards blockchain of 2.769 > 1.96 with a p value of 0.006 < 0.05, then for trust of 2.424 > 1.96 and p value of 0.016 < 0.05, but not strong enough (although in terms of path coefficients it is considered quite influential) to intention to use is 1.884 < 1.96 with P value is 0.060 < 0.05. External factors in the form of partners' readiness to adopt blockchain technology are enough to influence companies to participate in using this technology.

Importance-Performance Map Analysis (IPMA Matrix)

Measurement of employees' attitudes towards technology acceptance blockchain provides benefits of an overview of employee readiness in the company being researched as well as a small overview of employee readiness in Indonesia in accepting new and emerging technologies, namely technology blockchain. Some of the factors that are considered to affect

the interest of adoption are trialability, security, cost, innovativeness, facilitating condition, market dynamic, and regulatory support. Based on the results of the processing that has been carried out, it can be known that only regulatory support which as a whole affects the interest in adoption. Other variables such as Cost only affects attitude towards blockchain; innovativeness only affects attitude towards blockchain and intention to use; facilitating conditions only affects intention to use; market dynamics only affects trust and intention to use; and partner readiness only affects attitude towards blockchain and trust. As for other variables such as trialability and security does not affect the interest in technology adoption at all blockchain. The IPMA matrix this time only focuses on variables that produce findings that affect the adoption interest so that it is automatic trialability and security Not included. The overview of the IPMA matrix can be seen as follows:

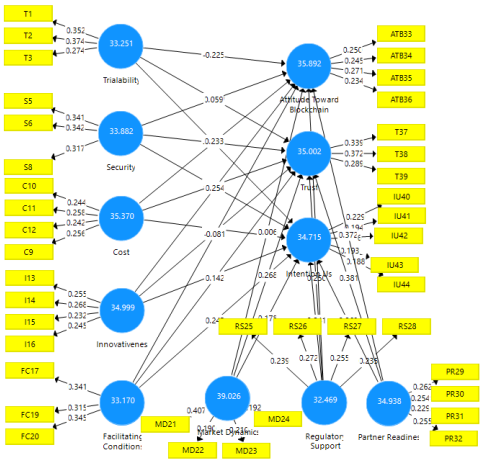

Figure 3. IPMA Matrix

An overview of the results of the IPMA matrix can be seen in the following table:

Table 5. Matrix IPMA

Construct	Importance	Performance
Cost	0,233	35,370
Innovativeness	0,254	34,999
Facilitating conditions	0,081	33,170
Market dynamics	0,006	39,026
Regulatory support	0,430	32,469
Partner readiness	0,372	34,939

The IPMA matrix describes the comparison between employee performance/assessment and expectations (importance) employee to an attribute. Based on table 5 above, it can be seen that market dynamics get the highest performance score. Employees assess and believe that the development of technology for business needs is fast, but for conditions in Indonesia, the implementation will be slower because the level of readiness of the Indonesian people is not too fast for technological developments so that employees feel not worried because of the adoption of technology blockchain will take time and is not expected to be applied to many companies in Indonesia. The technology that exists now is still considered quite capable in supporting activities, especially the application of

technology blockchain It is best done in companies with complex business activities. Employees tend to pay more attention to aspects of government support that are considered to not have policies and regulations that can provide security for users. The level of user expectations for the technology blockchain To be well regulated in a government policy is also highly valued. There are many cases in Indonesia that show weak planning and implementation of legal policies in Indonesia, such as in the case of insurance or technology fintech which currently has many problems such as Akseleran, koinworks, tanihub, and Amartha. The absence of legal certainty is felt to have more effect on adoption for the Indonesian people, especially in the context of this research are employees and partners of PT. Soko Rindam Utama.

Research Discussion

After knowing the test results of each hypothesis in this study, then the test results will be elaborated and discussed to deepen the interpretation of the results of each hypothesis. Respondents' perception of the assessment of trialability, security, factor cost, innovativeness, facilitating conditions, market dynamics, regulatory support, partner readiness, attitude towards blockchain, trust, and intention to use blockchain It is calculated by comparing the number of scores of each variable with a maximum score (5) of the total respondent entries as shown as follows:

Table 6. Respondent Scores

Variable	Maximum Score	Average Score	Percentage Score	Classification
Trialability	5	2,35	47%	Low
Security	5	2,32	46%	Low
Cost	5	2,37	47%	Low
Innovativeness	5	2,40	48%	Low
Facilitating Conditions	5	2,32	46%	Low
Market Dynamics	5	2,60	52%	Keep
Regulatory Support	5	2,30	46%	Low
Partner Readiness	5	2,39	48%	Low
Attitude towards Blockchain	5	2,44	49%	Low
Trust	5	2,41	48%	Low
Intention to Use	5	2,39	48%	Low

The continuum line of the five classes as shown in figure 4.7 starts from very low – low – medium – high – very high, used to determine the classification of the results of the calculation in the score table above. The results can be seen as follows:

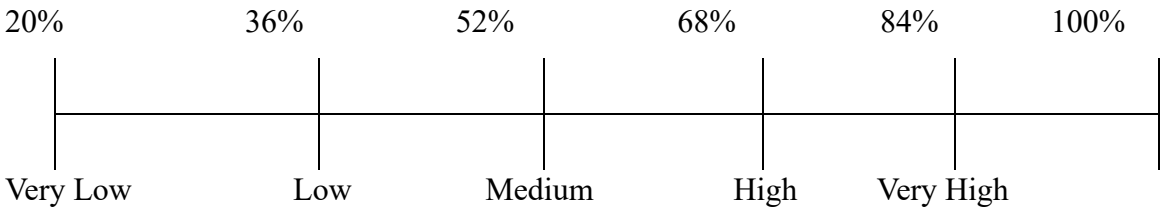

Figure 4. Continuum Line

Hypothesis Test Results 1: The Effect of Trialability on the Adoption of Blockchain Technology

Blockchain technology adoption readiness uses 3 variables, namely attitude towards blockchain, trust, and intention to use. The results of the test carried out on the first hypothesis can be seen that the effect of trialability on attitude towards blockchain has a sig value of 0.076, a statistical T of 1.778 < 1.96 and a negative path coefficient of -0.204. This means that trialability has no significant effect on attitude towards blockchain. Then for the trust the sig value is 0.085, the statistical T is 1.727 < 1.96, and the negative path coefficient is -0.166. This means that trialability has no significant effect on trust. Finally, the intention to use value is 0.989, the statistical T is 0.014 < 1.96, and the negative path coefficient is -0.001. The results of this test show that H1 is not answered and H0 is accepted or there is no significant influence of trialability on the adoption of blockchain technology (attitude towards blockchain, trust, and intention to use). Trialability is the level at which innovation can be tested and play an important role at the beginning Adoption of innovation. This transition is beneficial to reduce the tendency for errors and problems (Sooprayen, Kaa, & Pruyn, 2024). Trialability It is useful for reducing uncertainty, building trust, encouraging learning, and reducing financial or operational barriers at the beginning. However, in this study, findings were obtained that the transition process did not play an important role even in shaping employees' initial perception of the use of blockchain (Sooprayen, Kaa, & Pruyn, 2024). The initial perception in question is the use of blockchain can improve performance or be attractive to use. Until now, employees do not feel blockchain interesting to use so that in the end it does not arise interest in using the technology.

Hypothesis Test Results 2: The Effect of Cost on the Adoption of Blockchain Technology

The results of the test conducted on the second hypothesis are found that the influence of security on attitude towards blockchain has a sig value of 0.630, a statistical T value of 0.481 < 1.96 and a positive path coefficient. This means that security has no significant effect on the attitude towards blockchain. Then for the trust value sig value 0.328, T statistics 0.978 < 1.96, and negative path coefficient -0.088. This means that security has no significant effect on trust. Finally, the intention to use value is 0.430, the statistical T is 0.789 < 1.96, and the negative path coefficient is -0.072. The results of this test showed that H2 was not answered and H0 was accepted or there was no significant influence of security on the adoption of blockchain technology (attitude towards blockchain, trust, and intention to use). Implementation, blockchain has a smart contract security feature that is encrypted using a hash where data can be changed if previous blocks of data are changed. This is almost impossible to happen because security features can be hacked if the majority of devices connected to the blockchain can be infiltrated. Security features are one of the driving factors that affect the use of blockchain technology (Balasubramanian, et al., 2021; Kumar et al., 2020). However, the fact is that the findings obtained through this study contradict the findings obtained by previous research where the security aspect of blockchain has not been able to give an impression to attract interest in using the technology. Employees do not feel confident in this technology considering

that this technology has not been widely used Queiroz & Wamba, 2019; Duan et al., 2023; Chen et al., 2022). People in general are more aware of the derivative products of blockchain, namely crypto coins, than the technology behind crypto itself. Employees also consider that the technology owned by the company is currently too outdated or no longer relevant to accommodate business processes within the company so that the security factor is considered to have no effect on blockchain adoption as reported otherwise by the research of Ashmouri, et al., (2023).

Hypothesis Test Results 3: The Effect of Cost on the Adoption of Blockchain Technology

The results of the test conducted on the third hypothesis are found that the influence of cost on attitude towards blockchain has a sig value of 0.024, a statistical T of 2.262 < 1.96 and a positive path coefficient of 0.215. This means that cost has a significant effect on the attitude towards blockchain. Then for trust the sig value is 0.103, the statistical T is 1.634 < 1.96, and the positive path coefficient is 0.227. This means that cost has no significant effect on trust. Finally, the intention to use value is 0.373, the statistical T is 0.892 < 1.96, and the negative path coefficient is -0.112. The results of this test show that H3 is generally not answered and H0 is accepted or there is no significant cost effect on the adoption of blockchain technology (trust and intention to use). Cost considerations are indeed one of the influencing factors, but with other considerations such as unknown benefits and its application in the corporate context, the interest in adopting blockchain technology is not yet very strong. The implementation of a technology costs money. A technology can be said to be successful if the benefits provided are greater than the costs incurred (Camargo, 2021) or the technology is able to save the company's expenses. In the case of blockchain technology, the expected thing is to reduce record errors, timely payments, and credit feasibility analysis for partners who want to make payments in installments automatically and accurately (Balasubramanian et al., 2021; Taherdoost, 2022; Nguyen & Nguyen, 2021). Employees consider that blockchain technology cannot be understood so that its application will consume financial resources without actually understanding the benefits of blockchain technology can improve the company's performance. Therefore, the findings of this study refute the research of Nguyen & Nguyen (2021) who said that cost has a significant effect on blockchain adoption.

Hypothesis Test Results 4: The Influence of Innovativeness on the Adoption of Blockchain Technology

The results of the test conducted on the fourth hypothesis are found that the influence of innovativeness on attitude towards blockchain has a sig value of 0.009, a statistical T of 2.632 > 1.96 and a positive path coefficient of 0.250. This means that innovativeness has a significant effect on the attitude towards blockchain. Then for the trust value sig value is 0.760, T statistics are 0.305 < 1.96, and the positive path coefficient is 0.038. This means that innovativeness does not have a significant effect on trust. Finally, the intention to use value is 0.007, the statistical T is 2.722 > 1.96, and the positive path coefficient is 0.155. The results of this test showed that H4 was answered and H0 was rejected for the influence of innovativenes on attitude towards blockchain and intention to use, but on trust, innovativeness was shown to

have no significant effect. The rapid development of technology in human life, including in the business aspect, illustrates the innovation that continues to take place. The presence of blockchain technology is able to attract the attention of users considering the benefits offered in terms of security and automation (Ashmouri, et al., 2023). Although employees are impressed with how blockchain works and want to use it, employees still need further explanation that this technology can provide security for employees, companies, and related partners. Employees consider that data should only be accessible to interested parties, without access that can be obtained by others in the company's system. Blockchain technology is a relatively new technology and has gained a lot of impressions, but it has not been able to provide trust considering that this technology is not yet known by the wider community. The results of this study generally show that blockchain technology can provide advantages in terms of improving company performance and confirm research from Sooprayen, Kaa, & Pruyn (2024).

Hypothesis Test Results 5: The Effect of Facilitating Conditions on the Adoption of Blockchain Technology

As illustrated in this hypothesis, it shows that the influence of the facilitating condition on attitude towards blockchain has a sig value of 0.470, a statistical T of 0.722 < 1.96 and a negative path coefficient of -0.080. This means that facilitating conditions have no significant effect on attitude towards blockchain. Then for the trust the sig value is 0.240, the statistical T is 1.176 < 1.96, and the positive path coefficient is 0.144. This means that facilitating conditions do not have a significant effect on trust. Finally, the intention to use value is 0.001, the statistical T is 2.590 < 1.96, and the positive path coefficient is 0.248. The results of this test showed that H5 was missed and H0 was accepted for the effect of facilitating conditions on attitude towards blockchain and trust, but on intention to use, facilicating conditions proved to have a significant effect. Facilitating conditions are related to the factors of the technical infrastructure that allow employees to use a system within the company (Ashmouri, et al., 2023). Chawla & Joshi (2020) say facilitating conditions are related to institutions and technical infrastructure to support the use of systems. Based on the assessment of the facilitating conditions, there is a desire to try blockchain technology within the company. However, until now there has been no trust in blockchain technology that is able to significantly make a difference so that this trust factor affects the attitude of employees to have an interest in trying blockchain technology (Ahlen & Redgard, 2024; Ramadani et al., 2023; Giffari et al., 2023).

Hypothesis Test Results 6: The Influence of Market Dynamics on the Adoption of Blockchain Technology

Starting from the sixth to the eighth sub-chapter or hypothesis, it can be seen that the factors that affect the interest in the adoption of blockchain technology in companies are dominated by external factors such as market dynamics, regulatory support, or partner readiness rather than internal aspects of both the company and the technology itself. This is illustrated from hypothesis testing where market dynamics has a sig value of 0.003, T statistically 3.029 > 1.96 with a positive path coefficient of 0.237 for trust and a sig value of

0.007, T for a statistic of 2.722 > 1.96 with a path coefficient of 0.155 for intention to use, while for attitude towards blockchain has a sig value of 0.940 with a statistical T of 0.076 < 1.96 with a positive path coefficient of 0.005. The term market dynamics refers to the constant changes in the market and the intensity of intense competition (Ashmouri, et al., 2023). These changes include industry, market, and technology. Changes in the industry put pressure on companies to adopt technologies that are able to provide relative profits (Park, et al., 2019). This condition reflects intense competition in which companies must compete not only with other players in the supply chain (upstream and downstream competitors) but also with the influx of new innovations and new standards in industry. Therefore, it can be said that market dynamics have a significant influence on the adoption of technology blockchain (Taherdoost, 2022). In this study, it is stated that employees' attitudes towards technology blockchain are not familiar, but if competitors, business partners, or the wider community have adopted blockchain on a large scale, the company will keep up with the times. Companies that do not keep up with the times will be left behind and not competitive. Therefore, it can be explained again if employees have not yet got an attractive impression of using but will be interested in using it if the market has adopted it widely.

Hypothesis Test Results 7: The Influence of Regulatory Support on the Adoption of Blockchain Technology

Similar to the sixth hypothesis related to external aspects, the sixth hypothesis also shows the important role of external factors in influencing the adoption of blockchain technology. The test results show that regulatory support has a significant effect on the adoption of blockchain technology as seen from the attitude towards blockchain, trust, and intention to use. The test results also showed a positive correlation. The results of the test with attitude towards blockchain resulted in a sig value of 0.001, a statistical T of 3.381 > 1.96 and a positive path coefficient of 0.394. Then for trust, it produces a sig value of 0.038, a statistical T of 2.084 > 1.96, and a path coefficient of 0.236. Then the intention to use resulted in a sig value of 0.022, a statistical T of 2.306 > 1.96 with a positive path coefficient of 0.224. Government factors considered important in adoption blockchain. First, the government can implement solutions blockchain to make public sector services more efficient, safe, and transparent (Ahlen & Redgard, 2024). Second, the government can encourage other stakeholders to implement solutions blockchain by drafting legislation that supports blockchain or by providing related funding or tax-exempt incentives (Balasubramanian, et al., 2021). Government support is needed to regulate and monitor the industry for the use of new technologies. Therefore, it can be said that regulatory support significant influence and validation of previous findings on the adoption of new technologies (Giffari, Hubeis, & Sumawati, 2023).

Hypothesis Test Results 8: The Influence of Partner Readiness on the Adoption of Blockchain Technology

The last external aspect that has a significant influence on the adoption of technology blockchain was partner readiness. Influence partner readiness against attitude towards blockchain produced a sig value of 0.006, T statistically 2.769 > 1.96 with a positive path

coefficient of 0.329. Influence partner readiness against Trust produced a sig value of 0.016, a statistical T of 2.424 > 1.96 with a positive path coefficient of 0.348. However, the influence of partner readiness against intention to use produced a sig value of 0.060, T statistically 1.884 < 1.96 with a positive path coefficient of 0.235. The conclusion is that H8 is rejected or H0 is accepted with the statement partner readiness has no significant effect on the adoption of technology blockchain, However, the path coefficient still makes a considerable contribution. The adoption of new technologies will be easier if the ecosystem keeps up with these changes. As a practical step in implementation blockchain requires the cooperation and desire of partners to participate in the project. Referring to a study, it is stated that organizations that implement new products expect their business partners to do the same by implementing innovation processes similar to the company and fully utilize those innovations at the institutional level. Corporate partners (organizational's partner) is as an entity or party in the supply chain network that plays a critical role in supporting adoption blockchain (Ahlen & Redgard, 2024). Through the network theory approach (network theory), role organizational's partner, including collaboration facilitators, liaisons between companies, supporters of technological innovation, and trust builders. It can be said that strong external factors influence the adoption of technology blockchain (Queiroz & Wamba, 2019).

CONCLUSION

Based on the findings of this study, it is concluded that the readiness for blockchain technology adoption at PT Soko Rindam Utama is currently low, with external factors—particularly regulatory support, market dynamics, and partner readiness—playing a more significant role in influencing adoption interest than internal technological attributes such as trialability, security, and cost. While innovativeness and facilitating conditions show some positive influence on attitude and intention to use, the overall reluctance stems from a lack of trust, familiarity, and perceived immediate applicability within the company's operational context. For future research, it is recommended to expand the sample to include multiple companies across different industries and regions in Indonesia to enhance generalizability, as well as to incorporate qualitative approaches to gain deeper insights into employee and managerial perceptions, which could inform more tailored implementation strategies and policy frameworks for blockchain integration in emerging markets.

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