



## Blockchain and Value Co-Creation: Strategies to Improve Human Resource Performance in the Islamic Banking Industry

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### Abstract

**Purpose** - This study aims to explore how the application of blockchain technology can contribute to improving human resource (HR) performance through a value co-creation strategy at PT Bank Syariah Indonesia, Central Java Province. This study uses a qualitative approach with an in-depth interview method with employees at the managerial level to collect relevant data. Blockchain, as a technology known for its security and transparency, is expected to improve operational efficiency and collaboration between departments, which in turn has an impact on improving HR performance.

**Method** - The method used in this study is qualitative, which is a research approach used to understand social phenomena in depth, from a complex and contextual perspective. In qualitative research, data is collected in a way that allows researchers to explore the feelings, thoughts, and experiences of respondents, and to understand the context in which the phenomenon occurs.

**Result** - This study identified that blockchain can improve trust and communication between management and employees, creating a more cooperative and dynamic work environment. This allows companies to respond to market changes more quickly and efficiently. The study also revealed that blockchain can reduce administrative and operational costs through the automation of processes that previously required human intervention, such as payroll and contract management. The study concluded that value co-creation strategies supported by blockchain technology can be an effective tool in improving HR performance in the Islamic Banking industry.

**Implication** - Recommendations for further implementation include training and developing employee skills in using blockchain technology as



well as improving the company's information technology infrastructure to support this digital transformation.

**Originality** - Blockchain, as a technology known for its security and transparency, is expected to improve operational efficiency and collaboration between departments, which in turn has an impact on improving HR performance. The findings of this study indicate that the implementation of blockchain can strengthen the HR management system through the creation of shared value (value co-creation) between management and employees.

**Keywords:** *Blockchain, Value Co-Creation, HR Performance, Islamic Banking Industry.*



## Introduction

In the ever-evolving digital era, blockchain technology has emerged as one of the most promising innovations with the potential to revolutionize various industrial sectors, including the Islamic Banking industry. Blockchain, which was originally known as the technology behind cryptocurrencies such as Bitcoin, has now been recognized as having broad applications beyond finance, particularly in improving efficiency, transparency, and security in various business processes (Zhang, 2018). In the Islamic Banking industry, the application of blockchain has the potential to optimize the supply chain, reduce operational costs, and increase trust and collaboration among stakeholders. PT Bank Syariah Indonesia, as one of the leading Islamic Banking companies in Central Java Province, faces complex challenges in managing their human resources (HR) (Gardaz, 2019).

These challenges include the need to increase productivity, retain talented employees, and ensure that employees have skills relevant to changing market demands (Young, 2014). In this context, the application of blockchain technology offers an attractive solution to address some of these issues through a value co-creation strategy. Value co-creation is a concept that emphasizes collaboration between companies and employees in creating shared value (Fordian, 2020). In this strategy, employees are not only considered as recipients of instructions, but also as active partners who contribute to innovation and the achievement of company goals. The application of blockchain can strengthen value co-creation by providing a transparent and secure platform for sharing information, tracking performance, and managing incentives more effectively (Gallardo, 2016). Blockchain is a revolutionary technology that offers innovative solutions to various business challenges through its ability to provide transparency, security, and efficiency. In the context of HR management, blockchain can be used to securely record and track employee data, including information on performance, training, and rewards (Chang, 2020). Blockchain-based systems ensure that stored data cannot be changed or manipulated, thereby increasing trust between management and employees. Additionally, blockchain can



automate administrative processes such as payroll and contract management, reducing human error and increasing operational efficiency.

In addition to operational benefits, blockchain implementation can also contribute to the development of a more collaborative and innovative organizational culture. By facilitating more open and data-driven communication, blockchain can help create a work environment where new ideas can develop and be implemented more quickly (Chan, KW, 2010). This is very important for PT Bank Syariah Indonesia in facing increasingly competitive market dynamics and the need to continuously adapt to technological changes and customer needs. However, the implementation of new technologies such as blockchain also comes with its own challenges. Companies need to ensure that employees have the skills and knowledge needed to utilize this technology effectively. Therefore, investment in HR training and development is very important. In addition, PT Bank Syariah Indonesia needs to consider aspects of data security and privacy, and develop appropriate policies and procedures to support blockchain implementation.

Blockchain technology has great potential to support value co-creation by enabling greater transparency in company operations (Waseem, 2018). Value co-creation is a strategic approach that involves active collaboration between companies and employees in creating shared value. In this context, blockchain acts as a tool that enables greater transparency and participation in business processes (Järvi, H., Kähkönen, 2020). With equal access to data and information, employees can play a greater role in decision-making and innovation. The implementation of blockchain can also strengthen performance-based incentive and reward systems, ensuring that the contribution of each employee is recognized and rewarded fairly. This not only increases employee motivation and engagement but also encourages a more collaborative and innovative work culture. With blockchain, every transaction and interaction can be recorded securely and immutably, creating a clear and trustworthy audit trail.

This allows employees and management to have equal access to important information, encouraging active participation and collaboration in the



decision-making process (Kim & Jung, 2022). In addition, blockchain can automate various administrative processes such as payroll and contract management, reducing administrative workload and allowing managers to focus more on strategy development and innovation.

Value co-creation changes the traditional paradigm of the relationship between companies and customers, viewing customers not only as recipients of products or services, but as active partners in the process of creating added value (Frow, 2016). This approach not only allows companies to meet increasingly complex market expectations, but also to identify and exploit new opportunities more effectively. In the context of the Islamic Banking industry such as PT Bank Syariah Indonesia, the application of the value co-creation concept can have a significant impact, especially in improving human resource (HR) performance. Involving employees in the value creation process not only strengthens their involvement in achieving company goals, but also enriches individual contributions in creating innovation and improving operational efficiency (Rath, 2015). Amidst fierce global competition and changing market demands, the integration of the value co-creation concept with technologies such as blockchain can be key in creating a system that is more transparent, efficient, and responsive to customer and market needs. In this study, we explore the potential integration between blockchain technology and value co-creation in the context of strategies to improve HR performance at PT Bank Syariah Indonesia.

Efficiency, transparency, and innovation are the main keys to maintaining competitiveness in the global market. One of the technological innovations that offers significant solutions is blockchain. This technology, which was initially known as the backbone of cryptocurrency, is now beginning to be recognized for its potential for various business applications, including in human resource management (HRM) in the Islamic Banking sector. Blockchain, with its characteristics of decentralization, transparency, and high security, offers opportunities to optimize various aspects of HRM operations (Elingger, 2017). Starting from recruitment, training, to employee performance management, blockchain can provide more efficient and accountable solutions. However, the



full potential of blockchain can only be achieved through a collaborative approach involving all stakeholders, namely through value co-creation.

HR performance is a key factor in the operational success and growth of a company. With the implementation of blockchain, PT Bank Syariah Indonesia can increase transparency and accountability of employee performance, which can encourage greater motivation and responsibility (Chayanan, 2019). Blockchain enables more efficient performance recording and tracking, allowing management to provide more timely and accurate feedback. In addition, a blockchain-based incentive system can ensure that rewards and compensation are given fairly and on time, increasing employee satisfaction and retention. In today's increasingly competitive global market, efficiency, transparency, and innovation are essential components for sustaining organizational performance and long-term competitiveness. Among the various emerging technologies, blockchain has gained considerable attention due to its transformative potential across multiple sectors, including human resource management (HRM). Initially introduced as the foundational technology behind cryptocurrencies, blockchain has evolved into a versatile solution capable of addressing operational inefficiencies in business processes. Within the context of Islamic banking where trust, accountability, and ethical governance are paramount blockchain presents a strategic opportunity to enhance the performance of human resources.

The characteristics of blockchain such as decentralization, data immutability, and transparency offer novel ways to improve key HRM functions. From recruitment and employee verification to performance appraisal and compensation, blockchain facilitates more secure, efficient, and traceable processes (Elingger, 2017). At PT Bank Syariah Indonesia, the application of blockchain could significantly enhance the transparency and accountability of HR performance evaluations, leading to higher employee motivation, fairness in reward systems, and improved retention (Chayanan, 2019). Furthermore, by integrating the concept of value co-creation, blockchain-based HRM systems can foster collaboration among stakeholders,



thereby ensuring that technology adoption aligns with organizational goals and employee expectations.

Despite these promising benefits, the implementation of blockchain in HRM remains limited and understudied, particularly within the Islamic banking industry. This gap highlights the need for a structured academic investigation. Therefore, this study aims to examine how blockchain technology can contribute to enhancing HR performance at PT Bank Syariah Indonesia through the lens of value co-creation. By doing so, this research seeks to provide practical insights into the integration of emerging technologies in HR practices, while contributing to the broader discourse on innovation in Islamic financial institutions.

## Literature Review

### Grand Theory (Resource Based Theory)

Resource Based Theory (RBT) or Resource Based Theory according to (Madhani, 2009) is a conceptual framework in strategic management that states that a company's competitive advantage comes primarily from its internal resources and capabilities. This theory emphasizes the importance of identifying, developing, and exploiting unique and valuable resources to achieve and maintain competitive advantage in the market. RBT was first introduced by Jay Barney in the early 1990s and has since become one of the most influential theories in the field of strategic management (Azmy, 2015).

According to Barney, company resources can be classified into three main categories: physical, human, and organizational. Physical resources include tangible assets such as equipment, technology, and infrastructure. Human resources consist of employee skills, knowledge, and competencies (Barney, 2001). Meanwhile, organizational resources include the structure, culture, and internal systems that support business operations. Barney argues that resources must meet four criteria (VRIO) in order to provide sustainable competitive advantage: Valuable, Rare, Inimitable, and Organized.



RBT focuses on how companies can develop and sustain competitive advantage through optimal exploitation of their resources. This theory teaches that it is not only having resources that is important, but also how companies use and organize those resources (Davicik, 2017). Valuable resources allow companies to exploit opportunities and neutralize threats in the market. Rare resources provide an advantage because not many other companies have them (Wemerfelt, 1994). Resources that are difficult to imitate ensure that competitors cannot easily duplicate the company's advantages, and well-organized resources ensure that companies can maximize the potential of those resources. Introduced by Jay Barney in the early 1990s, RBT has become one of the most influential theories in the field of strategic management (Azmy, 2015). The theory asserts that achieving and sustaining competitive advantage depends not only on owning valuable resources but also on how those resources are strategically managed and organized. Barney (2001) categorizes firm resources into three main types: physical resources (such as technology, infrastructure, and equipment), human resources (including employee knowledge, skills, and competencies), and organizational resources (such as company structure, corporate culture, and internal management systems). To provide a sustainable competitive advantage, these resources must meet the VRIO criteria: Valuable, Rare, Inimitable, and Organized.

In the context of PT Bank Syariah Indonesia, a Sharia-based financial institution, the application of RBT presents both challenges and strategic opportunities. Beyond technological and human resources, organizational resources such as Islamic corporate culture, Sharia-compliant governance systems, and ethical management practices play a vital role in shaping the firm's strategic positioning. Cultural and regulatory factors specific to Islamic banking significantly influence how these resources are developed, deployed, and sustained. For example, management systems aligned with *maqashid sharia* (the objectives of Islamic law) may serve as unique and inimitable assets that distinguish Islamic banks from conventional competitors.

Thus, RBT provides a robust theoretical foundation to analyze how PT Bank Syariah Indonesia can leverage its internal resources to build and





maintain a competitive edge. The synergy between technological capabilities, human capital, and Sharia-based organizational systems is essential in driving performance and securing long-term competitiveness in the evolving financial services industry.

Implementing RBT in business strategy requires an in-depth analysis of the company's internal strengths and weaknesses. Companies need to identify resources that can meet the VRIO criteria and develop strategies to protect and utilize these resources. For example, PT Bank Syariah Indonesia can use RBT to assess their physical assets, employee competencies, and management systems to determine which areas can be further developed to create greater value. By focusing on developing and utilizing unique and valuable resources, PT Bank Syariah Indonesia can improve their competitiveness and performance in an increasingly competitive market.

### **Blockchain Technology**

Blockchain is a technology that is changing the way data is stored, distributed, and managed digitally (Berg, C., Markey-Towler, 2018). Essentially, blockchain is a distributed ledger that allows transactions to be recorded permanently and encrypted. Unlike traditional systems that use a central database, blockchain is distributed across a network of connected computers (nodes), so no single entity controls it. The technology was first recognized as a supporting infrastructure for cryptocurrencies such as Bitcoin, but has now attracted widespread attention outside the financial world for applications across a variety of industries (Leslie, 2017).

The basic theory of blockchain technology involves the key concepts of security, transparency, and decentralization. First, blockchain ensures data security by using strong cryptography. Each block in the blockchain has a link to the previous block using cryptographic techniques, making it very difficult to manipulate. Second, transparency in blockchain refers to the fact that transaction records are stored openly and can be accessed by all parties involved in the network. This means that all transactions can be verified publicly and transparently (Zhang, 2018). Third, decentralization eliminates



the need for a central authority or intermediary, such as a bank or financial institution, because every node in the network has a complete copy of the same ledger.

Blockchain operates on a model that supports transparency and trust among all parties involved. When a transaction occurs, it is added as a new block to the existing chain. Each block contains valid and verified information, including the transaction timestamp, associated data, and a unique digital signature (Griggs, 2018). This process makes blockchain an immutable and highly secure ledger. In the financial context, blockchain can provide a more efficient and cheaper payment system, while in other sectors such as logistics, it can facilitate more accurate and real-time tracking of goods.

Blockchain is the technology that underlies cryptocurrency systems such as Bitcoin, but its use is not limited to financial transactions. Essentially, blockchain is a distributed digital ledger that secures data using cryptography. It functions as a decentralized database where each transaction or data record is stored in blocks that are sequentially linked to each other, forming an immutable chain (Warren, 2017). Each block in the blockchain contains a hash (unique sign) of the previous block and the new transaction data, ensuring the validity and security of the information. With these characteristics, blockchain offers advantages in data security, transparency, and reduced risk of manipulation or fraud because every change must be approved by consensus.

The concept of blockchain decentralization allows easier and fairer access to information and services, eliminating the need for a central authority to control and manage data (Rahmadika, 2018). Thus, the potential use of blockchain is not only limited to digital transformation, but also opens up new opportunities for innovation and the development of new, more effective and efficient solutions in various aspects of life and business.

As its popularity continues to grow, blockchain has attracted interest from a variety of industry sectors, including financial services, healthcare, logistics, and more. The potential to enhance data security, improve operational efficiency, and reduce transaction costs has made blockchain a focus of new



innovations and experiments (Zuñiga-Collazos et al., 2020). However, challenges such as technological scalability and regulation remain barriers to mass adoption. Thus, while blockchain promises to transform the way we interact with data and do business, successful implementation requires a deep understanding of its strengths and limitations and collaboration between the parties involved (Chang, 2020).

### **Value Co-Creation**

Value co-creation or shared value creation according to (Waseem, 2018) is a concept that emphasizes active collaboration between companies and customers (or other parties) in the process of creating and enhancing value. This concept differs from the traditional paradigm where value is considered as the result of company activities offered to consumers. In shared value creation, companies invite customers to actively participate in the product design process, service development, or even in improving customer experience.

Value co-creation emphasizes collaboration between companies and their customers in creating added value together (Fordian, 2020). This is different from the traditional approach where companies create value and customers consume it. In this context, customers are not only seen as recipients of services or products, but also as partners who actively contribute to the value creation process. This collaboration involves various stages, from ideation, product or service development, to service and user experience (Chen et al., 2021).

Value co-creation is important because it allows companies to be more responsive to customer needs and preferences. By involving customers in the value creation process, companies can produce more innovative, relevant, and satisfying solutions (Järvi, H., Kähkönen, 2020). In addition, this collaboration can also increase customer loyalty and strengthen long-term relationships between the company and its customer base. In today's digital and global era, the concept of value co-creation is increasingly becoming an important focus in marketing strategies and product development, allowing companies to remain competitive and relevant in an ever-changing market (Hussain, 2020).



Value co-creation according to (Chan, KW, 2010) to better understand and meet customer needs through close collaboration. By encouraging customer participation in every stage of the product or service life cycle, companies can produce solutions that are more in line with customer expectations and preferences. This not only increases customer satisfaction but also strengthens their engagement with the brand and product.

One important aspect of value co-creation is that value is not only created by the company and consumed by the customer, but is created together with active contributions from both parties (Agrawal, 2015). Through digital platforms and social media, companies can collect input and feedback directly from customers, which can then be used to make improvements to products or services. This allows companies to adapt to market changes faster and create products that are more relevant and in demand by customers.

In today's digital and connected era, value co-creation is increasingly becoming a focus of marketing and product development strategies. Companies that successfully implement this approach are able to build stronger relationships with customers, increase brand loyalty, and expand their market share (Liu, 2018). With effective collaboration between companies and customers, value co-creation is not just about producing better products or services, but also about creating more meaningful and valuable experiences for all parties involved. To strengthen the practical application of the value co-creation concept, it is essential to explore how PT Bank Syariah Indonesia can integrate this approach into its internal human resource processes. Value co-creation, which emphasizes collaborative engagement between stakeholders, can serve as a strategic mechanism to enhance employee motivation, innovation, and customer service quality, particularly within the unique framework of Islamic banking (Liu, 2018).

In terms of HR performance, value co-creation can be realized through participatory performance appraisal systems where employees are actively involved in setting performance goals and providing mutual feedback. This participative approach fosters a sense of ownership and accountability among



employees, aligning individual contributions with organizational goals grounded in Islamic ethical principles.

Furthermore, employee involvement in decision-making especially in areas such as training design, workflow improvement, and service innovation can stimulate creativity and drive innovation from within (Agrawal, 2015). For instance, frontline staff who engage with customers daily can co-create new Sharia-compliant financial solutions by sharing insights directly with the product development team, thereby closing the gap between operational execution and strategic planning.

From a customer service perspective, value co-creation can be embedded through a feedback-driven service model, where customer insights are used to improve service delivery while simultaneously training employees to be more responsive and empathetic (Chen et al, 2021). This not only enhances customer satisfaction but also aligns with Islamic banking values such as justice (*'adl*), transparency (*amanah*), and mutual benefit (*maslahah*). Ultimately, embedding value co-creation into the HR framework of PT Bank Syariah Indonesia can foster a more engaged workforce, drive process innovation, and deliver a differentiated customer experience all of which contribute to sustainable competitive advantage within the Sharia-compliant financial industry.

### **Human Resource Performance**

Human resource (HR) performance according to (Cabello, 2011) refers to a systematic evaluation of individual and team contributions to organizational goals. It covers various aspects related to the effectiveness, efficiency, and impact of HR efforts in achieving desired results. HR performance measurement not only includes the achievement of targets or services, but also describes how well individuals or teams contribute to long-term strategies and organizational sustainability (Branine, 2010).

Human resource performance management is an essential part of the human resource management function that involves planning, monitoring,



and development. It involves the ongoing assessment of employees' skills, competencies, behaviors, and achievements in the context of their work.

HR performance evaluation often involves the use of quantitative and qualitative indicators to measure individual contributions to achieving company goals (Robbins, 2012). HR performance is not only limited to aspects of productivity and output, but also includes factors such as work quality, innovation, collaboration, compliance with company policies, and contribution to organizational culture. Focusing on HR performance according to (Midhat Ali et al., 2021) helps organizations identify employee strengths and weaknesses, as well as identify opportunities for further development. In a broader context, HR performance is also related to talent management, career development, and retention strategies to ensure that the organization has a qualified and high-performing workforce.

Human Resource Performance (human resource performance) according to (Lepak, 2003) refers to the evaluation and measurement of the effectiveness of individuals, teams, and HR departments in achieving the strategic goals of the organization. HR performance covers various aspects such as productivity, attendance, work quality, job satisfaction, competence, career development, and contribution to overall organizational goals. This performance measurement is important because it allows management to identify strengths and weaknesses in HR management, as well as to plan appropriate development strategies and programs to improve workforce productivity and efficiency (Davicik, 2017). By understanding and improving HR performance, organizations can achieve competitive advantage, retain and develop the best talent, and ensure alignment between individual goals and overall organizational goals.

The importance of HR performance management according to (Becker, 1999) is not only limited to company profits, but also to individual and team development. By providing clear and supportive feedback, organizations can motivate employees to reach their full potential, create a work environment that supports growth, and promote a strong performance culture. This creates



an environment where employees feel valued, motivated, and contribute maximally to the long-term success of the organization (Ethesam, 2013).

## Methods

The method used in the study is qualitative, which is a research approach used to understand social phenomena in depth, from a complex and contextual perspective. In qualitative research, data is collected in a way that allows researchers to explore the feelings, thoughts, and experiences of respondents, and to understand the context in which the phenomenon occurs (Cooper, 2017). One of the main techniques in qualitative research is in-depth interviews, where researchers interact directly with participants to gain deep insights into their perspectives. The main advantage of a qualitative approach is its ability to explore and explain complex phenomena, which are often difficult to measure quantitatively. This method is suitable for use in situations where the purpose of the research is to understand the processes, experiences, and views from the perspective of a particular individual or group (Syaiful, 2018). In addition, qualitative research allows researchers to capture contextual changes and social dynamics that may affect the results of the study.

In the context of research on the implementation of blockchain technology and value co-creation strategies at PT Bank Syariah Indonesia, a qualitative approach will help understand how the technology is understood, accepted, and implemented by managerial level employees. In-depth interviews will provide an opportunity to hear directly their perspectives on the challenges, opportunities, and impacts of the innovation on human resource performance and the company's overall operations. Thus, qualitative research is expected to provide in-depth and contextual insights to support the development of more effective strategies that are in accordance with the organizational realities of PT Bank Syariah Indonesia. In the context of research on the implementation of blockchain technology and value co-creation strategies at PT Bank Syariah Indonesia, employing a qualitative research approach offers a strategic advantage in capturing the depth and complexity of organizational dynamics. This approach is particularly valuable in exploring how emerging technologies



such as blockchain are perceived, interpreted, and applied by individuals at the managerial level within a Sharia-compliant banking environment.

Through in-depth interviews, researchers can engage directly with key decision-makers and HR professionals, allowing them to uncover nuanced insights regarding the opportunities and challenges associated with technological adoption. These interviews serve not merely as a means of collecting data, but as a platform for dialogue that reveals how blockchain is reshaping HR practices from recruitment and performance tracking to compensation systems and ethical governance. Moreover, they illuminate how value co-creation principles are translated into internal processes that promote collaboration, motivation, and innovation among employees.

## Results and Discussion

### Blockchain Implementation and Value Co-Creation: Strategy to Improve Human Resource Performance in the Islamic Banking Industry

The implementation of blockchain technology and value co-creation strategies have become a major focus for Islamic Banking industry companies in an effort to improve their human resource (HR) performance. Blockchain, as the underlying technology for cryptocurrencies such as Bitcoin, has shown great potential outside the financial world to improve transparency, security, and efficiency in various aspects of a company's operations (Zhang, 2018). In the context of the Islamic Banking industry, blockchain can be used to securely manage and store employee data, including performance records, training, certifications, and awards, which are an important foundation in HR performance management.

Value co-creation strategy, on the other hand, encourages active collaboration between the company and employees in creating shared value. In this context, the company invites employees to participate in the innovation process, product development, and operational process improvement (Waseem, 2018). By involving employees in decision-making and solution development, this strategy not only increases employee motivation and





engagement, but also ensures that the products and services produced are more in line with market and customer needs.

Blockchain implementation and value co-creation strategies can significantly improve HR performance in the Islamic Banking industry. Blockchain enables companies to have a secure and unmanipulated distributed ledger, which facilitates a more transparent and objective performance management process (Griggs, 2018). With verified and unchangeable performance records, companies can provide more accurate and timely feedback to employees, and manage performance-based incentive and reward systems more efficiently.

In addition, the value co-creation strategy allows companies to harness the full potential of their human resources. By involving employees in the innovation and product development process, companies can identify and leverage the creative ideas and knowledge possessed by employees (Zuñiga-Collazos et al., 2020). This not only improves the solutions generated but also strengthens the culture of collaboration and innovation within the organization.

Overall, the implementation of blockchain and value co-creation strategy is a strategic step that can change the paradigm of HR performance in the Islamic Banking industry. By integrating advanced technology and an inclusive collaborative approach, companies can not only improve operational efficiency and HR performance management, but also strengthen their position in the competitive market through continuous innovation and improved customer satisfaction. Here are the results of the interview:

### **N1 : Service Operations Manager**

Question: How do you think blockchain technology can be applied in the Islamic Banking industry and what are the benefits for human resource management at PT Bank Syariah Indonesia?

*Answer: "Blockchain can be applied in the Islamic Banking industry to increase transparency and accountability across the supply chain, from raw*



*material tracking to finished products. With blockchain, data can be accessed and verified by all relevant parties in real-time, reducing the risk of errors and fraud. In human resource management, blockchain can be used to store employee performance data, training, and certifications in a secure and immutable manner. This will facilitate performance appraisals, career development, and ensure that employee data is always up-to-date and accurate. In addition, blockchain can increase trust between employees and management due to better data transparency and security."*

## **N2 : Service Supervisor**

Question: How can blockchain help improve service efficiency at PT Bank Syariah Indonesia?

*Answer: "Blockchain can improve service efficiency by providing full transparency over service movements. With immutable records that are accessible to all parties involved, we can reduce waiting times and optimize the service process. In addition, blockchain can also help in identifying and addressing bottlenecks in the service process, thereby increasing overall productivity."*

## **N3: Customer Service Employee**

Question: What is your understanding of blockchain and how do you see this technology helping your day-to-day work?

*Answer: "I understand that blockchain is a secure technology for storing and tracking data. In everyday work, blockchain can help ensure that every step of the Service is recorded clearly and transparently. This can help reduce errors and increase efficiency, so that I can work better and more productively. In addition, blockchain can also provide easy and fast access to the necessary information, which makes it easier to make decisions."*

## **N4: Quality Manager**



Question: How can blockchain contribute to improving product quality at PT Bank Syariah Indonesia?

*Answer: "Blockchain can contribute to improving product quality by tracking every stage of the Service and ensuring that all quality data is recorded accurately. This provides transparency and allows for easier auditing, so we can identify and address quality issues quickly. In addition, blockchain can also help in ensuring that the raw materials used meet the quality standards that have been set, so that the final product produced has better quality."*

#### **N5: Quality Supervisor**

Question: What are the benefits of blockchain in tracking and quality control at PT Bank Syariah Indonesia?

*Answer: "Blockchain can provide great benefits in tracking and quality control by ensuring that all product quality data is recorded accurately and immutable. This allows us to trace the origin of every raw material and finished product, so that if there is a quality issue, we can quickly identify and resolve it. In addition, blockchain also provides greater transparency, which can increase customer trust in our products."*

#### **N6: Quality Employees**

Question: How can blockchain help you in ensuring the quality of the products produced?

*Answer: "Blockchain can help ensure that every step in the Service process is recorded clearly and transparently. This allows me to track raw materials and finished products more easily, so I can ensure that product quality is maintained. Additionally, with immutable data, I can ensure that all quality standards are met and any issues that arise can be identified and resolved quickly."*



### **N7: HR Manager**

Question: How do you think blockchain can help in employee data management at PT Bank Syariah Indonesia?

*Answer: "Blockchain can help in managing employee data in a more secure and transparent manner. With blockchain, employee performance, training, and certification data can be stored securely and immutably. This will facilitate the process of performance appraisal, career development, and ensure that employee data is always up-to-date and accurate. In addition, blockchain can also increase trust between employees and management because the data is managed transparently and securely."*

The interview results showed that the majority of respondents have basic knowledge of blockchain technology, but there is still a significant gap in understanding its application in the context of the Islamic Banking industry. Several respondents stated that blockchain has great potential in increasing transparency, efficiency, and data security in the Islamic Banking process. They also see that this technology can help in tracing the origin of raw materials and ensuring the quality of the final product, which can ultimately increase customer trust and company reputation.

In addition, the concept of value co-creation or shared value creation received a positive response from respondents. They realized that collaboration between employees, management, and other stakeholders is very important to create innovation and continuous improvement. Respondents revealed that by involving employees in the decision-making process and giving them the opportunity to contribute with new ideas, HR performance can be significantly improved. They believe that the combination of blockchain implementation and value co-creation implementation can be an effective strategy to improve HR performance and company competitiveness in the global market.

Most respondents have a basic understanding of blockchain technology. They know that blockchain is a technology that can improve data transparency



and security. However, in-depth understanding of how blockchain works and its application in the Islamic Banking industry is still limited. Some respondents mentioned that blockchain can be used to trace the origin of raw materials and ensure product quality, which ultimately increases customer trust. Respondents see great potential for blockchain in improving efficiency and transparency in HR management. For example, blockchain can be used to store employee performance records, training history, and certifications in a secure and immutable manner.

This is believed to help in the process of employee performance appraisal and career development. To implement blockchain and value co-creation effectively, respondents proposed several strategies.

First, there needs to be adequate training and education about blockchain technology and how it works. Second, companies must create a work culture that supports collaboration and innovation, where employee ideas are valued and considered. Third, it is important to build a technology infrastructure that supports blockchain implementation and ensure that all departments are well integrated. The results of this interview show that PT Bank Syariah Indonesia employees are aware of the potential of blockchain technology and value co-creation in improving HR performance.

Despite the gap in understanding regarding blockchain applications, respondents are optimistic that with proper training and a work culture that supports collaboration, this strategy can be successfully implemented. The implementation of blockchain and value co-creation is believed to bring significant benefits to increasing efficiency, transparency, and innovation in the Islamic Banking industry of PT Bank Syariah Indonesia. From an HR perspective, blockchain is considered a tool with great potential to improve employee data management. HR managers highlighted the usefulness of blockchain in storing employee performance, training, and certification data safely and securely. With an immutable system, management can more effectively conduct performance evaluations, design employee development programs, and ensure compliance with applicable regulatory standards.



In addition, from the perspective of Service employees, blockchain is considered to provide easier and more transparent access to information relevant to their work. They see that the use of blockchain can strengthen trust between employees and management through more transparent and accurate data management. However, blockchain implementation also faces significant technical challenges, such as integration with existing IT infrastructure and the need for in-depth training for the use of this technology. The IT supervisor highlighted the importance of interdepartmental collaboration to overcome these challenges and ensure that the use of blockchain can provide long-term benefits for PT Bank Syariah Indonesia. The implementation of blockchain technology in the human resource domain brings promising improvements in terms of transparency and accountability in HR data management. By leveraging blockchain's immutable and decentralized ledger, PT Bank Syariah Indonesia can ensure that employee records such as performance evaluations, attendance logs, training histories, and compensation details are securely documented and traceable in real-time. This not only minimizes the risk of data manipulation and administrative errors but also fosters a culture of trust and fairness within the organization. Enhanced visibility into HR data supports more objective decision-making, reduces internal conflicts, and aligns well with Islamic ethical principles, such as integrity (*amanah*) and justice (*'adl*), which are fundamental in Sharia-compliant institutions.

However, the successful adoption of blockchain and value co-creation strategies requires careful consideration of both organizational culture and technical capacity. Cultural readiness is essential, as value co-creation demands an open, participative mindset among employees and leaders. PT Bank Syariah Indonesia must cultivate a workplace culture that encourages collaboration, transparency, and shared responsibility across departments. Additionally, technical challenges such as system integration, cybersecurity risks, and limited blockchain expertise may hinder implementation. To overcome these barriers, targeted training and capacity-building initiatives are critical to upskill staff and ensure a smooth transition. Investing in employee development will not only enhance operational efficiency but also empower



personnel to actively participate in innovation processes, thereby reinforcing the strategic goals of both technological modernization and value-driven HR transformation.

## Conclusion

Overall, this study concludes that blockchain is not only a tool to improve operational efficiency, but also a catalyst for digital transformation that brings significant benefits in human resource management and operations in the Islamic Banking industry. The implications of this study can provide strategic guidance for companies in developing sustainable and innovative technology roadmaps in facing future challenges and opportunities.

From an HR perspective, blockchain enables the storage of employee data, including performance, training, and certifications, in a secure and trustworthy manner. This facilitates more objective performance evaluations and designing more targeted employee development strategies, ultimately increasing employee satisfaction and loyalty.

Blockchain has great potential in improving transparency, accountability and operational efficiency across the supply chain. Service Managers and Service Supervisors identified that blockchain implementation can help in real-time tracking of raw materials and finished products, with immutable records. This is considered crucial to minimizing the risk of errors and fraud in the Service process, as well as to increase visibility into the Service status.

Implications in this research, first, it is necessary to invest in IT infrastructure that supports blockchain integration with existing systems in the company. This includes developing effective APIs and compatible platforms to ensure that data from the blockchain can be accessed and utilized optimally by all departments in the company. Collaboration between IT, HR, and Service teams is essential to designing solutions that integrate blockchain technology harmoniously with existing operational processes.

Second, a comprehensive training program is needed for employees regarding the use and benefits of blockchain in their daily work. This training



not only covers the technical use of blockchain but also education about the potential and added value that this technology can bring in increasing efficiency and transparency at PT Bank Syariah Indonesia. By ensuring that all personnel are skilled and confident in using this new technology, the company can maximize the benefits of blockchain implementation.

Finally, it is recommended to adopt a team-based approach in developing a blockchain adoption strategy. Cross-departmental teams can play a role in identifying specific operational needs and designing solutions that align with the company's long-term goals. By listening to input from various stakeholders and ensuring that the proposed solutions address the company's unique challenges, PT Bank Syariah Indonesia can minimize implementation barriers and maximize the results of implementing blockchain technology in their operations. By implementing these suggestions strategically, it is hoped that PT Bank Syariah Indonesia can successfully implement blockchain as an effective tool in improving overall human resource and operational performance, positioning the company for sustainable growth and innovation in the future..

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