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IMPLICATIONS OF BLOCKCHAIN TECHNOLOGY ON STRATEGIC HUMAN RESOURCE PRACTICES: POTENTIAL LOSSES OF KEY FUNCTIONS

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Abstract:
In this paper, I argue that the implication of blockchain – a rising technology – may replace three human resource functions: rewards, administrative responsibilities, and performance management. A feature of blockchain that may cause this is called smart contracts, which are self-executing contracts with the terms of the agreement directly written into code. These smart contracts can automate and streamline various HR processes, from salary disbursements to performance appraisals and compliance management. By leveraging blockchain's decentralized and immutable nature, organizations can enhance efficiency, transparency, and security in these critical HR functions. Integrating blockchain technology promises to reduce administrative overhead, minimize errors and fraud, and foster greater employee trust. This paper explores the transformative potential of blockchain in HR, examining how blockchain-enabled systems can operate, the benefits they offer, and the broader implications for HR departments. By analyzing the potential displacement of traditional HR roles and the strategic considerations for adopting this technology, this study provides a comprehensive understanding of how blockchain can redefine HR functions and contribute to long-term organizational success.

Keywords: Administrative Responsibility; Blockchain Technology; Human Resource; Payroll; Performance Capability; Reward; Strategic Human Resource Management.

INTRODUCTION

In strategic human resource management (SHRM), the theories surrounding rewards and benefits, particularly salary, play a pivotal role in aligning organizational goals with employee motivation and performance. Central to these theories is the concept that a well-structured reward system can significantly influence employee behavior, enhance job satisfaction, and drive organizational success (Ayi & Korang, 2024; Rokeman et al., 2023). Herzberg's Two-Factor Theory, for instance, underscores the importance of intrinsic and extrinsic rewards, where salary is seen as a crucial extrinsic motivator that can prevent dissatisfaction but must be complemented with intrinsic motivators like recognition and career development opportunities to enhance job satisfaction and performance truly (Wang & Eugenio-Villanueva, 2024). Similarly, the Equity Theory posits that employees seek fairness in their remuneration relative to their peers; perceived inequities can lead to demotivation and decreased productivity, making equitable salary structures vital for maintaining a motivated and productive workforce (Varghese et al., 2021).

In SHRM, strategically allocating rewards and benefits, including salary, is crucial for attracting, retaining, and motivating talent. By strategically designing salary packages that reflect market competitiveness and align with organizational performance goals, companies can attract top talent while fostering loyalty and commitment among existing employees (Quader, 2024).

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Furthermore, performance-based pay systems, which link salary increments and bonuses to individual or team performance, exemplify how strategic reward management can tie compensation to organizational objectives, thereby driving higher performance levels and achieving long-term business success.

Performance management is a critical human resource (HR) component that aligns individual employee performance with organizational goals. This involves continuously setting objectives, assessing progress, and providing ongoing feedback and development to ensure that employees meet their performance targets and contribute effectively to the organization. Key elements of performance management include goal setting, performance appraisals, coaching, and development planning (DeNisi & Murphy, 2017). Effective performance management systems are designed to motivate employees by recognizing and rewarding high performance, identifying areas for improvement, and fostering a culture of accountability and continuous improvement. Organizations can enhance productivity, support career development, and drive business success by strategically managing performance. In addition to performance management, strategic HR encompasses various administrative responsibilities essential for maintaining efficient and compliant HR operations (Ahammad, 2017). These responsibilities include managing employee records, ensuring compliance with labor laws and regulations, overseeing recruitment and onboarding processes, and handling benefits administration. Effective administrative management in HR ensures that policies and procedures are consistently applied, employee data is accurately maintained, and legal requirements are met.

The advent of blockchain technology is poised to revolutionize various facets of business operations, with HR practices being no exception (Dash, 2023). Blockchain, a decentralized and immutable ledger, offers a robust framework for recording and verifying transactions. Among HR departments' myriad functions, payroll management is a critical yet traditionally labor-intensive and error-prone process. Integrating blockchain technology into payroll systems, particularly through smart contracts, presents an innovative solution to streamline this process (Bello & Daniel, 2022). By automating payroll transactions, blockchain can enhance efficiency, transparency, and security, thereby mitigating the need for a dedicated payroll officer. When applied to payroll, blockchain can automate the calculation and distribution of salaries through smart contracts—self-executing contracts with the terms of the agreement directly written into code (Mik, 2017). These smart contracts can be programmed to handle various payroll functions, such as calculating wages based on hours worked, tax deductions, and ensuring compliance with regulatory requirements. Once predefined conditions are met, the smart contract executes the payment, eliminating manual interventions and reducing the risk of errors and fraud. As this feature works quantitatively, a similar mechanism may also be applied to administrative requirements and performance management.

The implications of adopting blockchain for payroll are profound (Chen, 2023). It promises to significantly reduce administrative overhead, lower costs, and enhance the accuracy and reliability of HR operations. By streamlining administrative tasks through technology and best practices, HR departments can reduce operational inefficiencies and focus more on strategic initiatives such as talent management, employee engagement, and organizational development. Integrating technologies like blockchain can enhance these administrative functions by providing secure, transparent, and efficient solutions for managing HR data and processes. Moreover, the transparency inherent in blockchain can foster greater trust among employees, as they can independently verify their earnings and deductions. However, this technological shift also heralds

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a transformative impact on the HR landscape, particularly the potential obsolescence of the HR officer role.

This paper explores the transformative potential of blockchain technology on HR practices, focusing on the payroll function. It examines how blockchain-enabled payroll systems can operate, the benefits they offer, and the broader implications for HR departments. By analyzing the displacement of traditional payroll roles, this study aims to comprehensively understand how blockchain can redefine HR functions and the strategic considerations for organizations in adapting to this technological evolution.

Human Resource Function: Rewards, Performance Management, and Administrative Responsibilities. The rewards function in HR involves designing, implementing, and managing compensation structures that include salaries, bonuses, benefits, and other forms of remuneration. This function aims to attract, retain, and motivate employees by ensuring they are fairly compensated for their work (Bussin et al., 2017). A well-structured rewards system aligns employee incentives with organizational goals, fosters job satisfaction, and encourages high performance. It encompasses financial rewards, such as pay and bonuses, and non-financial rewards, such as recognition programs, career development opportunities, and work-life balance initiatives.

Performance management in HR refers to setting performance expectations, monitoring and evaluating employee performance, providing feedback, and fostering employee development. This function aims to align individual performance with the organization's strategic objectives. Key components include goal setting, regular performance appraisals, coaching, and development plans. Effective performance management helps improve employee productivity, identifies training needs, supports career growth, and enhances overall organizational performance by ensuring that employees' activities and outputs are consistent with the company's goals (Al Aina & Atan, 2020).

Administrative responsibilities in HR involve managing various operational and compliance-related tasks that ensure the smooth functioning of the HR department. These responsibilities include maintaining employee records, processing payroll, managing benefits administration, ensuring compliance with labor laws and regulations, handling recruitment and onboarding processes, and maintaining workplace policies and procedures. Effective management of these administrative tasks is crucial for maintaining data integrity, ensuring legal compliance, and providing employees with consistent and reliable HR services. This function supports the organization's overall efficiency by reducing operational inefficiencies and enabling HR professionals to focus on strategic initiatives (Marler & Parry, 2016).

Blockchain technology is a decentralized digital ledger system that securely records and verifies transactions across multiple computers (Sarmah, 2018). Each transaction is stored in a block linked in chronological order to form a chain. Blockchain's key features include immutability, transparency, and security. Once a transaction is recorded, it cannot be altered, ensuring data integrity. The blockchain's transparency allows all network participants to access and verify the information, fostering trust and accountability.

Additionally, blockchain employs cryptographic techniques to secure data, making it resistant to fraud and unauthorized access. Beyond its initial application in cryptocurrencies like Bitcoin, blockchain is now utilized across various industries for supply chain management, healthcare, finance, and HR (Salah et al., 2020). One of the key features of blockchain is smart contracts.

Smart contracts are self-executing contracts with the terms of the agreement directly written into code, which is stored and executed on a blockchain network. These contracts automatically enforce and verify the fulfillment of contractual conditions, enabling secure and transparent transactions without intermediaries. Once the predefined conditions are met, the smart contract

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automatically triggers the corresponding actions, such as releasing payments or transferring ownership. The key benefits of smart contracts include increased efficiency, as they eliminate the need for manual processing and reduce the potential for errors and fraud. Additionally, smart contracts provide greater transparency and trust, as all parties involved can independently verify the terms and execution of the contract (Nzuva, 2019). By leveraging blockchain's immutable and decentralized nature, smart contracts enhance the reliability and security of transactions across various applications, including finance, supply chain management, real estate, and human resources.

Strategic Human Resource Management. SHRM is the proactive management of people, aligning the HR function with an organization's strategic goals and objectives to improve business performance and develop a culture that fosters innovation, flexibility, and competitive advantage (Khan, 2023). SHRM involves planning and implementing HR policies and practices that support the organization's long-term objectives, such as talent acquisition and retention, training and development, performance management, and employee engagement. By integrating HR strategies with business strategies, SHRM ensures that an organization has the right talent to meet its current and future needs, thereby driving organizational success. It emphasizes the importance of HR as a strategic partner in business planning and execution rather than just an administrative function.

METHODS

This study utilized literature review approach to obtain information on blockchain and HR. Scopus and Google Scholar were opted as the databases to obtain both relevant, comprehensive, and credible literature. Several keywords such as “blockchain”, “cryptocurrency”, “human resource”, “strategic human resource”, and other similar keywords were chosen to accurately capture the aim of this research, which is to explore the transformative potential of blockchain in HR, examine how blockchain-enabled systems operate, the benefits and disadvantages they offer, and the broader implications for HR departments, especially on the function of HR staff that may be replaced by blockchain technology.

RESULT AND DISCUSSION

We found several recent studies that discussed the potential usage of blockchain on payroll systems, which are presented in Table 1. The studies presented in Table 1 collectively underscore the transformative potential of blockchain technology across various HR functions, including rewards, administrative responsibilities, and performance management. In the realm of rewards, Adel et al. (2021) demonstrate the feasibility and success of a blockchain-based human resource management system, highlighting its potential to enhance usability and further development. Similarly, Krol et al. (2021) propose a Proof-of-Prestige reward system, showcasing how blockchain can synergize with existing reward mechanisms while maintaining low invocation costs. Furthermore, Banaeian Far et al. (2022) illustrate the benefits of a blockchain-based collective salary payment framework, emphasizing its ability to ensure confidentiality, security, fairness, and efficiency in salary distribution.

Table 1. Recent Studies on Blockchain and Human Resource Functions

HR Functions	Author	Topic	Result
Rewards	Adel et al. (2021)	BC-HRM: A Blockchain-Based Human Resource	• The evaluation results via the System Usability Scale (SUS) model showed an overall success rate of 85%.

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		Management System Utilizing Smart Contracts	• It is feasible to develop further.
	Krol et al. (2021)	Proof-of-prestige: A useful work reward system for unverifiable tasks	• The creation of a Proof-of-Prestige reward system, which can synergize with the current Proof-of-Stake and Proof-of-Work systems. • Low smart contract invocation cost of 0.013$ for Ethereum users.
	Banaeian Far et al. (2022)	BB-CSP: An efficient blockchain-based collective salary payment framework using weighted functional encryption	• The analysis of the BB-CSP framework demonstrates that it ensures salary confidentiality, security, fairness, and efficiency.
Administrative Responsibilities	Sharples & Domingue (2016)	The Blockchain and Kudos: A distributed system for the educational record, reputation, and reward	• A permanent distributed record of intellectual effort and associated reputational reward is proposed, based on the blockchain, which instantiates and democratizes educational reputation beyond the academic community.
	Liu et al. (2020)	Blockchain-based certification for education, employment, and skill with an incentive mechanism	• A novel E2C-Chain, a two-stage blockchain designed to improve education, employment, and skill verification systems, is proposed. • Beneficial properties and efficiency of the proposed system are observed.
	Adjei-Arthur et al. (2022)	A blockchain-adaptive contractual approach for multi-contracting organizational entities	• A novel blockchain-based complete multi-contracting approach is developed by which multiple organizations can collaborate, arrange, and interlink complex contracts and resolve disputes, including contract–contract and arbitration consolidating mechanisms, are developed.
Performance Management	Nurhasanah et al. (2020)	Blockchain-based solution for effective employee management	• The blockchain design focuses on improving and developing the quality of the workforce, especially for sharing information between employees and managers. • This will facilitate identifying and analyzing employee skills, knowledge, and attitude data.
	Sifah et al. (2020)	BEMPAS: A decentralized employee performance assessment system	• The system achieves trust, transparency, security, and accountability among government workers under a Smart City governing environment.

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		based on blockchain for smart city governance	• When adopted, the game-based automated system can also effectively make decisions regarding employee performance.
	Godavarthi et al. (2023)	Blockchain Integration with the Internet of things for employee performance management	• Industry managers should pay attention to HR management indicators like collaboration, involvement, actualization, perception, and teamwork to improve employee performance. • One of them is the utilization of the Internet of Things and blockchain.

Concerning administrative responsibilities, Sharples & Domingue (2016) and Liu et al. (2020) propose blockchain solutions for educational record-keeping and certification verification, respectively, showcasing the technology's potential to democratize educational reputation and improve skill verification systems. Adjei-Arthur et al. (2022) also introduce a blockchain-adaptive contractual approach, highlighting its ability to streamline complex contracts and dispute resolution processes.

In terms of performance management, Nurhasanah et al. (2020) emphasize blockchain's role in improving employee management and facilitating skill analysis, while Sifah et al. (2020) and Godavarthi et al. (2023) highlight its potential to enhance transparency, accountability, and decision-making in employee performance assessment. Overall, these studies provide compelling evidence that blockchain implementation has the potential to revolutionize HR functions, offering efficiency, security, and innovation across the board.

HR plays a pivotal role in the functioning of an organization, encompassing a wide range of key functions essential for managing and developing its workforce. These functions include recruitment, performance management, learning and development, and many more. HR is responsible for overseeing 12 key functions that contribute to the overall success and effectiveness of the organization (Figure 1). These functions, along with others such as compensation and benefits management, employee relations, and HR planning, collectively demonstrate the holistic nature of HR in managing and maximizing the potential of the organization's human capital. However, we will focus on 3 main functions: rewards, administrative responsibilities, and performance management.

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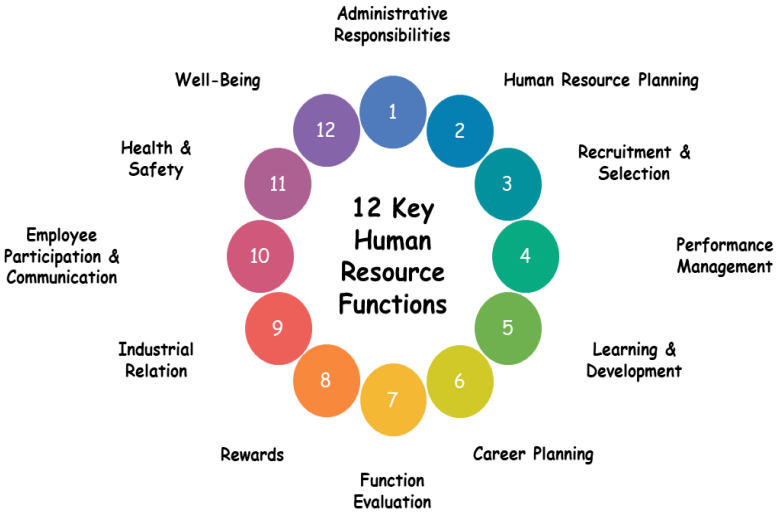

Figure 1. 12 Key Human Resource Functions
(Redrawn from Academy to Innovate HR, 2024)

In my opinion, blockchain technology has the potential to impact SHRM in various ways significantly. Specifically, in terms of payroll management, smart contracts on blockchain can automate payroll processes by executing predefined rules based on conditions like hours worked, overtime, and deductions. This ensures accurate and timely employee payment while minimizing errors or discrepancies, creating a more efficient payroll system. Blockchain technology has the potential to revolutionize the rewards (distribution of salary) function of HR by providing a transparent, secure, and efficient method of managing and distributing salaries. Utilizing smart contracts, companies can automate salary payments based on predefined conditions, ensuring timely and accurate disbursements. This automation reduces the risk of human error and fraud, as transactions are recorded on an immutable ledger accessible to all authorized parties. Additionally, the transparency of blockchain allows employees to verify their compensation records independently, fostering trust and reducing disputes related to salary payments. The decentralized nature of blockchain can also facilitate international payroll processes by eliminating the need for intermediaries and reducing transaction costs and delays, making it particularly advantageous for global organizations.

In terms of administrative responsibilities, blockchain can streamline various HR processes such as employee onboarding, record-keeping, and compliance management. By storing employee records on a blockchain, companies can maintain a tamper-proof and easily accessible data repository, enhancing data integrity and security. Its decentralized and immutable nature enhances security and trust by providing a secure platform for managing sensitive HR data such as employee records, payroll information, and performance evaluations. This reduces the risk of data breaches and unauthorized access, fostering trust between employees and the HR department. This can simplify background checks and credential verification, as blockchain can provide verifiable proof of an individual's education, work history, and certifications. Moreover, blockchain can aid in compliance with regulatory requirements by providing transparent audit trails and ensuring that all records are up-to-date and accurate. Automating these administrative tasks through blockchain can

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significantly reduce the administrative burden on HR departments, allowing them to focus on more strategic initiatives such as talent development and employee engagement.

Furthermore, blockchain can revolutionize performance management and incentive programs by using smart contracts to automate evaluations and rewards based on predefined key performance indicators (KPIs). This provides greater transparency and accountability regarding performance metrics and rewards. Companies like Bitwage utilize blockchain to facilitate international payroll processing, allowing employees to receive cryptocurrency payments, thus bypassing traditional banking systems. Additionally, firms like ChronoBank leverage blockchain to create decentralized labor exchange platforms where employers can hire workers based on reputation and performance ratings stored on the blockchain. These innovations demonstrate the broad potential of blockchain to enhance various aspects of HRM, from payroll to performance tracking and incentive programs.

Adopting blockchain technology can reduce operational expenses in the HR department by automating and optimizing essential processes. For example, smart contracts on the blockchain can manage payroll by executing pre-established rules based on factors such as hours worked, overtime, and deductions. This automation guarantees accurate and timely salary payments, minimizing the need for manual handling and reducing errors or discrepancies. Furthermore, storing employee data on a blockchain creates a tamper-proof and easily accessible repository, streamlining administrative tasks like onboarding, record-keeping, and compliance management. This reduces the necessity for extensive paperwork and manual data entry, lowering labor costs and enabling HR staff to focus on strategic initiatives.

Additionally, blockchain's enhanced security and data integrity diminish the risk of data breaches and unauthorized access, further cutting data protection and regulatory compliance costs. Therefore, implementing blockchain in HR can lead to a more efficient, secure, and cost-effective operational environment. To some extent, blockchain may "replace" some HR functions while generating more benefits and lower operational costs. This may challenge the existence of HR practice in the future.

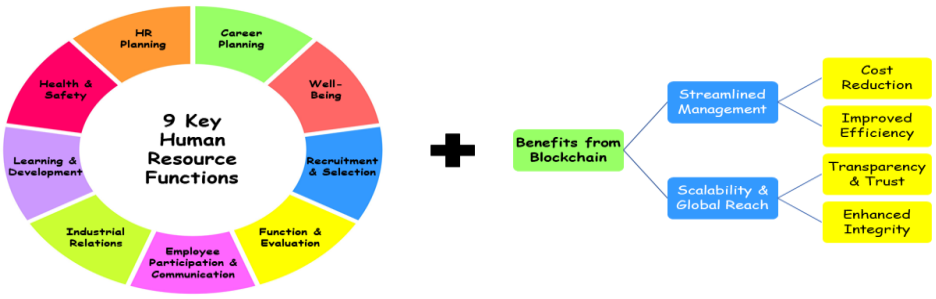

Figure 2. Blockchain Replaces 3 Functions of Human Resource While Providing Benefits

The implication of blockchain – a rising technology – may replace three human resource functions: rewards, administrative responsibilities, and performance management, resulting in the loss of a quarter of HR staff functions. The implementation of blockchain technology in HR has the potential to profoundly influence SHRM by transforming traditional HR processes and enhancing organizational effectiveness. By automating and streamlining key functions such as payroll management, rewards distribution, and administrative tasks through smart contracts and

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decentralized ledger systems, blockchain enables HR departments to operate more efficiently, securely, and cost-effectively. This shift towards blockchain-based HR systems empowers organizations to reallocate resources towards strategic initiatives such as talent development, employee engagement, and performance management, thereby driving long-term business success. Moreover, blockchain's transparency and accountability mechanisms provide greater visibility into HR operations, facilitating data-driven decision-making and fostering trust between employees and the organization. Overall, integrating blockchain technology into HR practices represents a significant step towards modernizing and optimizing SHRM processes, ultimately enabling organizations to adapt to the evolving demands of the digital age and remain competitive in the global marketplace.

CONCLUSION

Implementing blockchain technology in an organization can significantly lower operational costs within the HR department by automating and streamlining key processes. For instance, smart contracts on blockchain can handle payroll management by executing predefined rules based on conditions such as hours worked, overtime, and deductions. This automation ensures accurate and timely salary disbursements, reducing the need for manual intervention and minimizing errors or discrepancies. The transparency of blockchain further allows employees to independently verify their compensation records, reducing disputes and fostering trust. Additionally, by storing employee records on a blockchain, companies can maintain a tamper-proof, easily accessible data repository, simplifying administrative tasks like onboarding, record-keeping, and compliance management. This eliminates the need for extensive paperwork and manual data entry, cutting labor costs and freeing HR staff to focus on more strategic initiatives. Moreover, blockchain's enhanced security and integrity reduce the risk of data breaches and unauthorized access, lowering the potential costs associated with data protection and regulatory compliance.

Implementing blockchain in HR can create a more efficient, secure, and cost-effective operational environment. Organizations may consider adopting blockchain technology or at least learn about it first to see if it may offer new competitive advantages, especially for the HR department. Future research should explore the broader implications of adopting blockchain technology in the HR departments of organizations across various industries. This exploration could encompass the long-term cost savings and efficiency gains from automating payroll management, as well as the potential improvements in employee trust and satisfaction due to increased transparency and accuracy. Additionally, studies could investigate the effects of blockchain on administrative tasks, such as onboarding and compliance management, and how the reduction in manual labor impacts HR personnel's ability to focus on strategic initiatives. The enhanced security and data integrity offered by blockchain technology present another critical area for research, particularly in understanding how these features can mitigate the risks and costs associated with data breaches and regulatory compliance. Moreover, comparative studies across different organizational sizes and sectors could provide valuable insights into the scalability and adaptability of blockchain solutions in HR. By delving into these aspects, future research can offer a comprehensive understanding of the potential competitive advantages of blockchain technology to the HR field and guide organizations in making informed decisions about its adoption.

REFERENCES

Adel, H., El-Bakary, M., ElDahshan, K., Salah, D. (2022). BC-HRM: A blockchain-based human resource management system utilizing smart contracts. In: Awan, I., Benbernou, S., Younas,

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KSI
Indexed By : GARUDA Google doi Crossref INDEX COPERNICUS ROAD ISJD Indonesia OneSearch EBSCO

M., Aleksy, M. (eds) The International Conference on Deep Learning, Big Data and Blockchain (Deep-BDB 2021). Lecture Notes in Networks and Systems, vol 309. Springer, Cham. https://doi.org/10.1007/978-3-030-84337-3_8

Adjei-Arthur, B., Gao, J., Xia, Q., da Silva Tavares, E., Xia, H., Amofa, S., & Wang, Y. (2022). A blockchain-adaptive contractual approach for multi-contracting organizational entities. *Future Generation Computer Systems, 132*, 93-107. https://doi.org/10.1016/j.future.2022.02.003

Ahammad, T. (2017). Personnel management to human resource management (HRM): How HRM functions. *Journal of Modern Accounting and Auditing, 13*(9), 412-420. http://dx.doi.org/10.17265/1548-6583/2017.09.004

Al Aina, R., & Atan, T. (2020). The impact of implementing talent management practices on sustainable organizational performance. *Sustainability, 12*(20), 8372. https://doi.org/10.3390/su12208372

Ayi, T. D., & Korang, V. (2024). Enhancing organizational performance: The impact of reward management on employee behavior. *Convergence Chronicles, 5*(2), 1-14.

Banaeian Far, S., Imani Rad, A. & Rajabzade Asaar, M. (2022). BB-CSP: An efficient blockchain-based collective salary payment framework using weighted functional encryption. SN COMPUT. SCI. 3, 408. https://doi.org/10.1007/s42979-022-01330-7

Bussin, M. H., Pregnolato, M., & Schlechter, A. F. (2017). Total rewards that retain: A study of demographic preferences. *SA Journal of Human Resource Management, 15*(1), 1-10. http://dx.doi.org/10.4102/sajhrm.v15.804

Chen, Z. (2023). Revolutionizing HRM practice with blockchain technology: Unleashing disruptive paradigms of work and overcoming management challenges. *Technology Analysis & Strategic Management*, 1-14. https://doi.org/10.1080/09537325.2023.2282083

Dash, S. P. (2023). HR digital transformation: Blockchain for business. In: Panda, S.K., Mishra, V., Dash, S.P., Pani, A.K. (eds) Recent Advances in Blockchain Technology. Intelligent Systems Reference Library, vol 237. Springer, Cham. https://doi.org/10.1007/978-3-031-22835-3_3

DeNisi, A. S., & Murphy, K. R. (2017). Performance appraisal and performance management: 100 years of progress? *Journal of Applied Psychology, 102*(3), 421. https://psycnet.apa.org/doi/10.1037/apl0000085

Godavarthi, B., Dhar, M., Devi, S. A., Raju, S. S., Balaram, A., & Srilakshmi, G. (2023). Blockchain integration with the Internet of Things for employee performance management. *The Journal of High Technology Management Research, 34*(2), 100468. https://doi.org/10.1016/j.hitech.2023.100468

Khan, S. (2023). Strategic HRM: Linking people management with business strategy. *Advance Journal of Econometrics and Finance, 1*(1), 14-26.

Król, M., Sonnino, A., Al-Bassam, M., Tasiopoulos, A. G., Rivière, E., & Psaras, I. (2021). Proof-of-prestige: A useful work reward system for unverifiable tasks. *ACM Transactions on Internet Technology (TOIT), 21*(2), 1-27. https://doi.org/10.1109/BLOC.2019.8751406

Liu, L., Han, M., Zhou, Y., Parizi, R.M., Korayem, M. (2020). Blockchain-based certification for education, employment, and skill with incentive mechanism. In: Choo, KK., Dehghantanha, A., Parizi, R. (eds) Blockchain Cybersecurity, Trust and Privacy. Advances in Information Security, vol 79. Springer, Cham. https://doi.org/10.1007/978-3-030-38181-3_14

Marler, J. H., & Parry, E. (2016). Human resource management, strategic involvement and e-HRM technology. *The International Journal of Human Resource Management, 27*(19), 2233-2253. https://doi.org/10.1080/09585192.2015.1091980

JISDB
P-ISSN - 2962-8849 (PRINT)
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JOURNAL OF INFORMATION SYSTEMS, DIGITIZATION AND BUSINESS
Indexed By : GARUDA Google doi Crossref INDEX COPERNICUS ROAD ISJD EBSCO

Mik, E. (2017). Smart contracts: terminology, technical limitations and real-world complexity. *Law, innovation and technology, 9*(2), 269-300. https://doi.org/10.1080/17579961.2017.1378468

Nurhasanah, Y., Prameswari, D., & Fachrunnisa, O. (2021). Blockchain-based solution for effective employee management. In Proceedings of International Conference on Smart Computing and Cyber Security: Strategic Foresight, Security Challenges and Innovation (SMART CYBER 2020) (pp. 147-154). Springer Singapore. https://doi.org/10.1007/978-981-15-7990-5_14

Nzuva, S. (2019). Smart contracts implementation, applications, benefits, and limitations. *Journal of Information Engineering and Applications, 9*(5), 63-75. http://dx.doi.org/10.7176/JIEA/9-5-07

Quader, M. (2024). Exploring human resource management practices and employee satisfaction in Bangladesh's private banking sector. *Journal of Policy Options, 7*(1), 36-45.

Rokeman, N. R. M., Kob, C. G. C., & Sobry, H. C. (2023). The role of reward in teachers' job satisfaction towards job performance: A literature review. Malaysian Journal of Social Sciences and Humanities (MJSSH), 8(11), e002591-e002591. https://doi.org/10.47405/mjssh.v8i11.2591

Salah, D., Ahmed, M. H., & ElDahshan, K. (2020). Blockchain applications in human resources management: Opportunities and challenges. In: Proceedings of the 24th International Conference on Evaluation and Assessment in Software Engineering (pp. 383-389). https://doi.org/10.1145/3383219.3383274

Sarmah, S. S. (2018). Understanding blockchain technology. *Computer Science and Engineering, 8*(2), 23-29. http://dx.doi.org/10.5923/j.computer.20180802.02

Sharples, M., & Domingue, J. (2016). The blockchain and kudos: A distributed system for the educational record, reputation and reward. In Adaptive and Adaptable Learning: 11th European Conference on Technology Enhanced Learning, EC-TEL 2016, Lyon, France, September 13-16, 2016, 11 (pp. 490-496). Springer International Publishing. https://doi.org/10.1007/978-3-319-45153-4_48

Sifah, E. B., Xia, H., Cobblah, C. N. A., Xia, Q., Gao, J., & Du, X. (2020). BEMPAS: a decentralized employee performance assessment system based on blockchain for smart city governance. IEEE Access, 8, 99528-99539. https://doi.org/10.1109/ACCESS.2020.2997650

Varghese, J., Khetade, N., & Shetty, S. (2021). Study for organization's equity theory concerning the motivation of its employee: concerning a hospital in Mumbai suburban. *International Journal of Science and Research, 10*(2), 1400-1406.

Wang, C., & Eugenio-Villanueva, L. (2024). The impact of extrinsic and intrinsic rewards on employee satisfaction: Towards a reward management plan. *Journal of Education and Educational Research, 8*(3), 505-518. https://doi.org/10.54097/m4626y62.