



Analysis of The Influence of Digital Integrated Employee System on Employee Performance in Banking Industry

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Abstract

This research aims to determine the benefits of the barcode system in private banks. Researchers employ a quantitative approach, which is a form of survey research. The research design uses a descriptive analysis method. To collect data, the author conducted interviews, distributed questionnaires and observations, and tracked documents related to the barcode system in the bank. The population in this study were employees of the Operation Division. This research employed the non-probability sampling technique. Researchers used SPSS. By using a barcode system, employees gain several significant benefits. First, the barcode system makes it easier to maintain IT equipment at the bank by providing accurate information about the status and location of the devices, as well as creating a greater sense of responsibility for the devices used. Apart from that, using barcodes also helps overcome the problem of data redundancy, maintain data security, speed up the process of calculating asset depreciation, and speed up the decision-making process. Implementing the barcode system also makes it easier and faster to process asset stock-taking using the asset inventory application, thereby increasing overall work productivity. However, the test results show that using the barcode system is not practical in improving the performance of employees. The calculated t value reveals no significant difference in performance before and after the barcode system implementation.

Keywords: Bank, Quantitative, Performance, Application.

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1. Introduction

The significant influence of Sharia banks in other countries has led to the development of Indonesia. These two countries have become advanced financial centers and inspire the global financial industry. Different countries have a long finance industry history and have established various regulations and policies that support its growth [1]. The experience of countries in developing financial products and services is also a valuable lesson for Indonesia in increasing the competitiveness of the financial industry in the global market. On the other hand, Malaysia has become one of the largest financial centers in the world by having strong and innovative financial institutions [2]. Strict but supportive regulations in other countries have helped create a conducive environment for the growth of banks. By adopting various best practices from different countries, Indonesia has an excellent opportunity to continue to improve the quality and growth of the domestic financial industry. Cooperation between these countries can also become a strong foundation for developing a more extensive and robust financial market at regional and global levels. In this way, Indonesia can be more active in spreading financial principles worldwide [3].

The Law of the Republic of Indonesia states that banks are commercial organizations that, to raise people's living standards, take money from the general public in the form of savings and give it to them in the form of credit or in other ways [4]. On the other hand, banks are financial organizations that match their activities with principles and specialize in providing credit and services for money circulation and payment traffic. It becomes a foundation for the principles banks must adhere to, providing a guide for following the law. This includes the prohibition against usury and the ban on receiving or giving interest [5]. Therefore, we expect to develop financial products and services that align with principles, including profit sharing, cooperation, and other permissible principles. A bank assumes a greater responsibility in its operations, ensuring that every activity aligns with established principles, benefiting society as a whole [6].

Information technology has become one of the main pillars supporting the smooth operations of modern organizations. Information technology helps increase efficiency in business processes and is the key to success in facing competition in the current digital era. Companies or organizations that don't use information technology often fall behind and struggle to compete [7]. Financial institutions are no exception to the demand to keep up with developments in information technology. By adopting information technology, financial institutions can increase operational efficiency, optimize customer services by providing faster and more accurate services, and increase competitiveness in the market [8]. Information technology supports internal operations and facilitates the development of innovative products and services tailored to customer needs. This way, they can expand their market share and increase profits. Therefore, they must continue developing their capabilities for effectively adopting and utilizing information technology. This is not only to stay relevant in the finance industry but also to remain competitive in an increasingly competitive market [9].

Banks have adopted an asset inventory information technology system that uses barcodes to report asset data to Indonesian banks. This decision makes it easier for employees to report asset data and increases efficiency and accuracy in managing banking assets. Using barcodes allows for identifying and tracking assets quickly and accurately [10]. This will enable banks to optimize asset use, reduce the risk of loss or fraud, and ensure the availability of assets required for daily operations. Furthermore, the barcode system also helps monitor and manage assets more effectively. Barcode systems generate information enabling better decision-making in asset procurement, maintenance, and disposal, enhancing efficiency and lowering operational costs [11]. By adopting an asset inventory information technology system that uses barcodes, they can strengthen their position as financial institutions that are modern and efficient in managing assets. This step can also provide competitive advantages amidst increasingly fierce competition in the banking industry [12].

Bank Indonesia Regulation requires all banks to report assets to Bank Indonesia within a specified period. However, we still experience problems reporting IT assets because the system used to assess them has not been correctly inventoried. This results in the IT asset data collection process taking a long time and incurring enormous operational costs [11]. Therefore, we need a new system that can address these issues. Banks have used a barcode system to assist in reporting IT asset data. This system can provide accurate, fast, and precise data, especially regarding IT asset data reporting. With the barcode system, we can carry out inventory management of IT assets more efficiently and accurately [12]. Using a barcode system can also reduce operational costs because the data collection is faster and more efficient. Apart from that, using a barcode system also allows for better monitoring and management of IT assets. By adhering to Indonesian bank regulations, they can effectively manage their IT assets according to established standards. Adopting a barcode system can improve operational efficiency and the quality of IT asset data reporting to Indonesian banks [13].

A barcode system significantly impacts banks and other companies managing IT assets. One of the main benefits is that it makes it easier to collect IT asset data through a database system, which helps increase efficiency and accuracy in data management. Apart from that, using barcodes also helps overcome the problem of data redundancy that often occurs in manual data collection so that data becomes more organized and integrated. In addition to these benefits, the barcode system ensures data security by restricting access to only authorized individuals [9]. This is important to prevent unauthorized access to company IT asset data. Apart from that, using barcodes also speeds up the process of calculating asset depreciation because fast and accurate data access allows companies to carry out calculations more efficiently.

Furthermore, the use of a barcode system also has an impact on increasing work productivity. Employees can access data quickly and carry out tasks related to IT assets more effectively and efficiently. This helps improve the company's overall operational efficiency. Thus, using a barcode system is the right step for banks and other companies to optimize IT asset management and increase operational efficiency [11]. Effectiveness generally refers to the degree of success in achieving a predetermined goal. Effectiveness is described here as a metric that indicates the extent to which the predetermined objectives have been met in quantity, quality, and timeliness. The degree of efficacy increases with the percentage of targets met. The critical word here is "effective," meaning that an agency of government's success may be gauged by how well it represents the interests of society as a whole in terms of political, economic, and other domains. An attempt to accomplish goals as effectively as possible, that is, by making the best use of the resources at hand, is another way to define effectiveness. Effectiveness in the context of government agencies also refers to performing tasks and obligations while keeping in mind the values of justice, truth, and the public's welfare. Thus, government agencies' effectiveness is measured by the extent to which targets are achieved and by the extent to which these efforts are carried out appropriately and fairly. Therefore, government agencies need to continue to improve their effectiveness by identifying clear goals, measuring the achievement of these goals, and making necessary improvements to be more effective in meeting the needs and interests of society [12].

A barcode is a graphical representation of data consisting of a collection of vertical lines placed side by side with varying thicknesses. A barcode reader can interpret each line in a barcode as a specific digit or character. Barcodes encode information like identification numbers, prices, or other details in a format that a barcode

machine can easily read. Using specialized software or hardware, barcodes efficiently store and transfer information. A computer system can interpret the data stored in the barcode for further processing. System quality, information quality, user interest in the system, user contentment, and the caliber of information system services are some key attributes of a sound information system. Performance, availability, and dependability are all aspects of system quality [13]. The precision, timeliness, and applicability of the data that the system provides are known as information quality parameters. User interest in the system reflects the extent to which the user is interested and actively uses the system. User satisfaction is a measure of the extent to which users are satisfied with the performance and features of the system. Technical support, training, and system maintenance. By understanding these characteristics, companies can design and implement effective and efficient information systems, increasing their productivity and operational effectiveness [14].

Job performance, also known as actual achievement, refers to the achievements that a person has achieved in their work. Work achievement, also known as performance, can be defined as the outcome of labor, encompassing the quantity and quality of work a person completes in fulfilling their assigned obligations. This suggests that a person's performance represents their capacity to fulfill the specified work requirements. Performance can also be defined as the result of an individual's and a group's efforts to meet predetermined job requirements. Performance in an organizational setting also refers to a person's capacity to contribute productively to accomplishing the organization's goals and objectives [8]. Assessing an individual's or a team's job performance is crucial in determining the degree to which they have fulfilled their responsibilities and produced the desired outcomes. In addition to serving as a foundation for employee growth and decision-making about promotions, incentives, or acknowledgment for accomplished work, this evaluation aids businesses in identifying the strengths and shortcomings of people or teams. Three criteria are commonly used in evaluating employee performance [11]. First, trait-based criteria, which focus on the personal characteristics of each employee. This criterion includes employee loyalty, knowledge, skills, and the ability to carry out work. Evaluations based on these criteria examine how employees' personalities influence how they identify and carry out their tasks [12]. Second, behavioral-based criteria assess how a job is carried out by considering company norms and culture. Assessment based on this criterion looks at how employees comply with company rules, standards, and values in carrying out their duties. Third are results-based criteria, which measure the achievement of predetermined work results. Performance evaluation based on these criteria assesses the extent to which employees achieve or exceed predetermined performance targets. Employee performance assessment can be done by comparing an employee's work results with those of other employees with the same type and level of work. This approach allows companies to identify high performers, provide appropriate rewards or recognition, and identify areas where employees require further support or development [13].

There are five leading indicators used to measure individual performance in an organization. First is work quantity, which measures the number of results produced by an employee. It can be described in several ways, like the quantity of completed activity cycles or units. The second factor is work quality, which represents how employees judge the caliber of their work. This concerns how well the duties are completed about the employee's aptitudes and experience [13]. The third factor is punctuality, which gauges how well an employee can finish his work within the allotted time. Ensuring synchronization with output outcomes and optimizing time use for other operations are crucial [14]. The fourth factor is efficacy, which gauges how well a worker can utilize organizational resources like cash, raw materials, labor, and technology. The goal is to increase the yield from each unit of resource used. Fifth is independence, which reflects the level of employees' independence in carrying out their work functions. This includes employees' work commitment to the organization and their responsibilities for the work and tasks assigned [15]. The use of these indicators helps organizations measure and evaluate individual performance, thereby identifying areas where employees can improve and appropriately rewarding high performers.

2. Research Methods

This research employs a quantitative approach to enhance comprehension of the barcode system's implementation. With this approach, researchers can objectively measure and numerically analyze the data obtained, clearly showing the operational effectiveness of using the barcode system. The author's survey research enabled the collection of samples from the information operations division employee population. Using questionnaires as the main tool for data collection provides an opportunity for respondents to provide their views and experiences related to implementing the barcode system. The descriptive analysis research design offers a comprehensive picture of the data related to the barcode system, including the facts and events that influence operational effectiveness. The author can collect the data needed to answer research questions through interviews, distributing questionnaires, making observations, and tracking related documents. With the employee population as the focus of the research, the author can understand the internal perspective of implementing the barcode system. The author used the non-probability sampling technique to select respondents with relevant knowledge and experience for the research. The author employs SPSS for data analysis, enabling the statistical

analysis necessary to address the research questions. We hope this research will significantly contribute to understanding the barcode system implementation and its impact on operational effectiveness.

3. Results and Discussion

Based on the data provided, it can be concluded that most employees are men, which may reflect the gender proportion in the information technology industry, which tends to be dominated by men. In terms of age, most of the employees are in the productive age range, which shows that this division has employees with mature experience and expertise. However, a few employees over 50 may require special attention for skill development and adaptation to technological developments. Most employees have a bachelor's degree educational background, which aligns with the need for more profound skills and knowledge in information technology. However, having employees with diplomas and master's educational backgrounds is also valuable because they can provide various perspectives and expertise when facing information technology challenges. In terms of positions, the dominance of executive-level employees shows that this division has many executive staff who directly carry out daily tasks. However, officers, section heads, and division heads indicate a fairly complex organizational structure, which allows for effective coordination and decision-making within this division. Finally, the structure reflects the complexity of the division's duties and responsibilities in supporting information technology operations and services. Each section has a vital role in maintaining and optimizing the performance of the banking information system as a whole.

Implementing the barcode system not only provides critical operational benefits for employees but also has a broader impact on the efficiency and effectiveness of the organization as a whole. One of the main benefits is efficiency in inventory management, where barcode systems make it possible to track the location and status of each device accurately. This reduces the risk of inventory errors and speeds up finding needed devices. Barcodes also aid in monitoring device maintenance, guaranteeing timely and regular maintenance to prolong the device's lifespan. Another benefit of a barcode system is increased employee accountability and responsibility for the devices they use. Having unique identification for each device makes employees feel more responsible for caring for and using devices wisely. This can increase employee understanding and awareness of the importance of IT tools in supporting operations. Using barcodes also impacts risk management's effectiveness, especially in identifying and dealing with lost or confused devices. A barcode system allows for the immediate detection of lost or confused devices, enabling the immediate implementation of corrective measures to prevent operational disruptions. Overall, implementing the barcode system brings concrete operational benefits and creates a more orderly, structured, and efficient work environment. This can increase productivity and the quality of services provided to their customers.

The *t* value indicates no significant difference between employee performance before and after implementing the barcode system. This suggests that the barcode system is not practical in improving employee performance. However, the context and purpose of system implementation also play a crucial role in determining the effectiveness of a system. In this context, several factors may influence these results. One of them is the factor of system implementation that is not optimal, such as a lack of training or sufficient understanding from employees regarding using the barcode system. In addition, external factors, such as changes in the work environment or company policies, can also influence the system's effectiveness. To increase the effectiveness of the barcode system in improving employee performance, it is necessary to conduct an in-depth evaluation of the current system implementation. This may include additional training for employees, adjustments to work procedures, or increased management support for using barcode systems. By taking appropriate corrective steps, the barcode system is hoped to provide more significant benefits for employee performance.

4. Conclusion

Using the barcode system provides several significant benefits. The barcode system makes it easier to maintain IT devices by providing accurate information about the status and location of the devices, as well as creating a greater sense of responsibility for the devices used. Apart from that, using barcodes also helps overcome the problem of data redundancy, maintain data security, speed up the process of calculating asset depreciation, and speed up the decision-making process. Implementing the barcode system also makes it easier and faster to process asset stock-taking using the asset inventory application, thereby increasing overall work productivity. However, the test results using the *t*-test statistical test show that using the barcode system is not practical in improving the performance of employees. This can be seen from the calculated *t* value, which shows no significant difference in performance before and after implementing the barcode system. This conclusion illustrates that although the barcode system provides many benefits, other factors still need to be considered to improve overall employee performance. An in-depth evaluation of the implementation of the barcode system and appropriate improvement steps are necessary so that this system can provide more significant benefits for employees. For banks, it is highly recommended that employee performance be monitored periodically. This aims to ensure that performance standards are maintained and that each employee can continue to improve their

quality and contribution to the company. Routine monitoring also helps identify potential improvements that can be made to increase work efficiency and effectiveness.

Meanwhile, readers are expected to read critically and analytically. Input, suggestions, and criticism provided by readers are very valuable in developing future research. By getting input from various points of view, the author can improve and develop this research to be better and more relevant to existing conditions and needs.

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