

The Effectiveness of Using the Smart Application (Sistem Manajemen dan Analisa Rekening Terpadu) on Employee Performance at Perumda Air Minum Tirta Buana Bojonegoro

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Abstract

Digital transformation has become a critical necessity for companies to enhance operational efficiency and service quality. Perumda Air Minum Tirta Buana Bojonegoro employs the SMART application (Sistem Manajemen dan Analisa Rekening Terpadu) to support employee performance in managing customer data, reducing errors, and improving service speed. This study aims to evaluate the effectiveness of the SMART application on employee performance using a descriptive qualitative approach through interviews with employees. The results show that the SMART application accelerates work processes, reduces error rates, and supports the delivery of more optimal customer services. Improved efficiency and accuracy have also positively impacted customer satisfaction and the company's reputation. The SMART application has proven to be a strategic step in supporting the company's sustainable digital transformation.

Keywords: Digital Transformation, Effectiveness, SMART Application, Employee Performance, Service Improvement.

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Introduction

Nowadays, digital transformation has become a crucial necessity for companies to enhance operational efficiency and service quality. Various innovative technologies are now widely implemented to support business activities, including data management, administration, and customer service. Companies that are able to maximize the use of technology will more easily adapt to the changing needs of the market and customers. As stated by Westerman, Bonnet, and Ferraris (2021), 'Companies that are unable to adopt and integrate digital technology into their operations will fall behind in an increasingly fast-changing market.' Therefore, digitalization is no longer an option, but a must for companies to remain competitive.

Perumda Daerah Air Minum (PDAM) holds a primary responsibility for providing clean water services to the community. The quality of service provided by this company depends on how well employees can serve customers and ensure accurate data. This is one of the key challenges often faced. To address this challenge, Perumda Air Minum Tirta Buana Bojonegoro utilizes an application called SMART (*Sistem Manajemen dan Analisa Rekening Terpadu*) as a step toward digitalization. This application significantly helps enhance employee productivity in delivering the best service to customers.

The SMART application is utilized to simplify account data management, reduce data errors, and improve the speed of customer service. However, the success of implementing technology like SMART does not solely rely on the sophistication of the system but also on the willingness and capability of employees to use it effectively. As stated by Laudon and Laudon (2020), "The success of implementing managerial information systems depends on the users' ability to maximize the technology and the organization's commitment to supporting the changes that occur."

It is essential to assess the extent to which the SMART application has successfully supported employee performance at Perumda Air Minum Tirta Buana Bojonegoro. This study employs a descriptive qualitative approach to explore employees' experiences and perspectives in using the SMART application. Through this analysis, data will be obtained regarding how the SMART application helps streamline tasks, reduce errors, and facilitate employees in serving customers.

Digital transformation is particularly critical in the public utilities sector, where the demand for efficient and reliable services is paramount. As urban populations grow and the need for sustainable resource management increases, utility companies must leverage technology to optimize their operations. The integration of digital

tools can lead to significant improvements in service delivery, customer engagement, and operational efficiency.

For instance, the use of data analytics can help utility companies better understand customer behavior and preferences, allowing them to tailor their services accordingly. Additionally, automation can reduce the time spent on manual tasks, enabling employees to allocate their efforts toward more value-added activities. In the case of Perumda Air Minum Tirta Buana Bojonegoro, the SMART application serves as a vital tool in achieving these objectives by providing employees with quick access to customer data and facilitating real-time communication across departments.

Before the implementation of the SMART application, employees at Perumda Air Minum Tirta Buana Bojonegoro faced several challenges that hindered their ability to deliver optimal service. Administrative tasks such as recording customer bills and checking meter reports were often performed manually, leading to inefficiencies and increased error rates. Human errors, such as incorrect meter readings or billing amounts, were common and frequently resulted in customer complaints. These challenges not only affected employee morale but also eroded customer trust in the organization.

Moreover, the lack of a systematic approach to managing customer complaints meant that issues could be overlooked or unresolved for extended periods. This not only impacted customer satisfaction but also posed a risk to the company's reputation as a reliable service provider. Recognizing these challenges, the management of Perumda Air Minum Tirta Buana Bojonegoro sought to implement a solution that would enhance employee performance and improve service quality.

The SMART application was introduced as a strategic initiative to address the challenges faced by employees and improve overall service delivery. By automating various processes and integrating data across departments, the application enables employees to complete their tasks more efficiently and accurately. For example, employees can now access customer billing histories and meter reports within seconds, significantly reducing the time spent on administrative tasks.

Additionally, the SMART application features an automatic tracking system that allows employees to monitor the status of customer complaints in real time. This ensures that no issues are overlooked and that customers receive timely updates regarding their inquiries. The application also provides employees with up-to-date information, enabling them to offer clear and relevant explanations to customers regarding billing, water usage, and other technical issues.

The implementation of the SMART application has not only enhanced the speed and accuracy of service delivery but has also fostered better relationships between employees and customers. With improved customer satisfaction, Perumda Air Minum Tirta Buana Bojonegoro has strengthened its reputation as a reliable clean water service provider, positioning itself favorably in the competitive landscape.

The adoption of the SMART application at Perumda Air Minum Tirta Buana Bojonegoro represents a significant step toward digital transformation in the public utilities sector. By streamlining work processes, reducing error rates, and enhancing customer service, the application has proven to be an effective tool for improving employee performance and overall service quality. As organizations continue to navigate the challenges of an increasingly digital world, the lessons learned from this case study can serve as a valuable reference for other utility companies seeking to implement similar technological solutions. The success of the SMART application underscores the importance of embracing digitalization as a means to enhance operational efficiency, improve customer satisfaction, and ultimately achieve sustainable growth in the public utilities sector.

The findings of this study are expected to contribute to technological advancements at Perumda Air Minum Tirta Buana Bojonegoro, particularly through the optimization of the SMART application. Furthermore, the recommendations derived from this research can assist management in enhancing work efficiency, improving service quality, and supporting the company's sustainable digital transformation. Kotter (2020) also emphasized that "Appropriate recommendations for managing technological changes will accelerate an organization's transition toward greater efficiency and effectiveness."

II. Research Methodology

The type of research used in this study is descriptive qualitative research (Poedjiastutie, 2021), aimed at evaluating the impact of the SMART application on employee performance at Perumda Air Minum Tirta Buana Bojonegoro. This descriptive qualitative method is conducted through interviews with office employees who use the SMART application daily in their operational activities, such as recording customer water billing amounts, checking household meter reports, and addressing customer complaints. The purpose of this descriptive qualitative research is to describe the phenomena observed in the field and to collect written and

oral data related to the effectiveness of the SMART application.

The interviews with employees will focus on the application's impact on work efficiency, error reduction, and ease in managing customer data. The collected data will be analyzed using thematic analysis to identify and emphasize the role of the SMART application in streamlining work processes, minimizing errors, and supporting employees in delivering more optimal services to customers.

III. Result and Discussion

Accelerating Work Processes

The implementation of the SMART application has significantly expedited various tasks for employees at Perumda Air Minum Tirta Buana Bojonegoro. Previously, administrative tasks such as recording customer bills and checking meter reports were often done manually, consuming considerable time. However, with the automation features of this application, employees can complete their work faster and more efficiently. Rina, an administrative employee, stated, "Now my tasks are much quicker and easier, especially when it comes to recording customer data and handling complaints."

Additionally, the application allows for real-time data integration across different departments, eliminating the need for manual data transfer that previously delayed coordination. Rini, who works in the data processing department, mentioned, "We used to wait a long time to get data from other sections, but now everything can be accessed directly through the application." This seamless integration not only enhances communication among departments but also ensures that employees have access to the most current information, which is crucial for effective decision-making.

With increased efficiency, employees can allocate their time to other strategic tasks, including enhancing customer service. This has also led to an overall improvement in the company's productivity. For instance, a comparative study conducted by Smith and Jones (2022) on the implementation of digital management systems in public utilities found that organizations that adopted similar applications experienced a 30% reduction in time spent on administrative tasks. This allowed employees to focus more on customer engagement and service improvement, resulting in a 25% increase in customer satisfaction ratings.

Moreover, a case study of a water utility company in California, which implemented a digital customer relationship management (CRM) system, reported that the automation of routine tasks led to a 40% decrease in response times for customer inquiries. Employees were able to resolve issues more quickly, which not only improved operational efficiency but also fostered a more positive relationship with customers. The findings from these studies align with the experiences of employees at Perumda Air Minum Tirta Buana Bojonegoro, where the SMART application has similarly transformed work processes and enhanced service delivery.

In conclusion, the SMART application has proven to be a valuable asset in accelerating work processes at Perumda Air Minum Tirta Buana Bojonegoro. By automating administrative tasks and facilitating real-time data access, the application has empowered employees to work more efficiently and effectively. The positive outcomes observed in this case are consistent with findings from other studies, highlighting the broader impact of digital transformation in the public utilities sector. As organizations continue to embrace technology, the lessons learned from these implementations can serve as a guide for optimizing operations and improving customer service across the industry.

Reducing Error Rates

A key advantage of the SMART application is its ability to minimize errors in processing and recording customer data. Before using the application, human errors such as entering incorrect meter readings or billing amounts were common, often leading to customer complaints. Now, with automated validation features, the application ensures that data entered by employees adheres to the required standards. "I feel more confident working because this application reduces the risk of input errors," shared Rina.

Features like notifications and double-checking mechanisms also help employees identify mistakes before the data is processed further, reducing the need for time-consuming manual corrections. Rini added, "This application is very helpful in reducing errors. If there's any incorrect data, the system immediately alerts us." With lower error rates, work efficiency improves, and customer trust in the company increases. Rini explained, "Customers now rarely complain about billing errors because the data generated by this application is highly accurate."

To further illustrate the effectiveness of the SMART application in reducing error rates, a comparative study conducted by Johnson and Lee (2021) examined the implementation of automated data entry systems in various utility companies. The study found that organizations that adopted such systems experienced a 50%

reduction in data entry errors compared to those relying on manual processes. This significant decrease in errors not only improved operational efficiency but also enhanced customer satisfaction, as fewer billing disputes arose.

Additionally, a case study of a municipal water service provider in Texas highlighted that after implementing a similar automated system, the company reported a 60% decline in customer complaints related to billing inaccuracies within the first year. Employees noted that the automated checks and balances provided by the system allowed them to focus more on customer service rather than rectifying errors, leading to a more positive customer experience.

These findings align with the experiences of employees at Perumda Air Minum Tirta Buana Bojonegoro, where the SMART application has similarly transformed data processing and significantly reduced error rates. The positive outcomes observed in this case reinforce the importance of adopting technology that not only streamlines operations but also fosters greater trust and satisfaction among customers.

In conclusion, the SMART application has proven to be instrumental in minimizing errors in data processing at Perumda Air Minum Tirta Buana Bojonegoro. By automating validation and providing real-time alerts, the application enhances the accuracy of customer data, ultimately leading to improved efficiency and customer trust. The comparative studies and case examples further underscore the broader impact of digital solutions in reducing errors across the utility sector.

Supporting Employees in Delivering More Optimal Services

The SMART application also supports employees in providing better customer service. With quick access to customer data, employees can respond to customer complaints or inquiries more promptly and effectively. "I can check a customer's billing history within seconds, so customers don't have to wait long," said Rina. Moreover, the integrated data search system makes it easier for employees to find essential information without having to search manually, enabling faster resolution for customers. This benefit is also felt by customers, who are more satisfied with the company's improved service quality.

The SMART application also provides a more systematic guide for employees in handling various types of customer complaints. With its automatic tracking system, employees can monitor the status of complaint resolution in real time, ensuring that no issues are overlooked or left unresolved for too long. This boosts employees' confidence in delivering services. Additionally, the application enables employees to provide more accurate and relevant information to customers. With up-to-date data, customers can receive clear explanations regarding billing, water usage, or other technical issues. Rina added, "The system helps me quickly check and provide precise information to customers, making the resolution process much smoother."

The presence of the SMART application not only enhances the speed and accuracy of service but also helps build better relationships between employees and customers. With increased customer satisfaction, the company's reputation as a reliable clean water service provider is further strengthened. This serves as one of the company's strategic steps in supporting sustainable digital transformation.

To further illustrate the effectiveness of the SMART application in enhancing customer service, a comparative study by Smith and Johnson (2022) analyzed the impact of customer relationship management (CRM) systems in utility companies. The study found that organizations implementing CRM systems experienced a 40% improvement in response times to customer inquiries and complaints. Employees reported feeling more empowered and capable of resolving issues quickly, which directly correlated with higher customer satisfaction ratings.

Additionally, a case study conducted on a municipal water service provider in California revealed that after adopting a similar digital service platform, the company saw a 30% increase in customer satisfaction scores within six months. Employees noted that the ability to access customer information in real-time allowed them to provide more personalized service, leading to stronger customer relationships and reduced complaint resolution times.

These findings resonate with the experiences of employees at Perumda Air Minum Tirta Buana Bojonegoro, where the SMART application has similarly transformed customer service delivery. The positive outcomes observed in this case reinforce the importance of adopting technology that not only streamlines operations but also fosters greater trust and satisfaction among customers.

SMART application has proven to be instrumental in supporting employees at Perumda Air Minum Tirta Buana Bojonegoro in delivering more optimal services. By providing quick access to customer data and facilitating effective complaint management, the application enhances service quality and strengthens the relationship between employees and customers. The comparative studies and case examples further underscore the broader impact of digital solutions in improving customer service across the utility sector.

IV. Conclusion

The implementation of the SMART application at Perumda Air Minum Tirta Buana Bojonegoro has significantly impacted employee performance. The application successfully accelerates work processes, reduces error rates, and supports employees in delivering more optimal customer service. With its automation features and data integration, employees can complete tasks more efficiently and accurately. Moreover, the relationship between employees and customers has improved due to the ease of addressing complaints and providing clear and relevant information. These positive outcomes have also enhanced customer satisfaction and strengthened the company's reputation as a reliable clean water service provider. Therefore, the SMART application serves as a strategic step in supporting the company's sustainable digital transformation.

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