Transforming Employee Performance with AppSheet I-DO Digital Product Knowledge Enhancement

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ABSTRACT

This study aims to explore the contribution of the AppSheet I-DO application in improving product knowledge and employee performance, especially the role of Nivea Hansaplast Consultant and Beiersdorf Merchandiser. With an exploratory qualitative-descriptive approach, this study involved 11 informants through in-depth interviews, participant observation, and documentation. The results showed that the Interactive Development Environment Application significantly improved training efficiency, product understanding, and confidence in product communication. Flexibility of access, ease of navigation, and prototyping approach made the Interactive Development Environment easily accepted and relevant to the needs of frontliners. The positive impact was seen from the achievement of sales targets above 100% and consistent customer data improvement. The implementation of I-DO reflects a digital socio-technological transformation model that aligns technology, management, and users. This application functions as an educational tool as well as a strategic platform for making data-based decisions, increasing individual accountability and collective performance. These findings are the importance of digitalization in strengthening human resource capabilities and organizational competitiveness. This study provides a basis for developing application-based digital training strategies in other work sectors, to encourage organizational adaptability and excellence in facing the dynamics of the digital industry.

Keywords*: Digital Learning, Digital Transformation, Employee Performance Transformation, Knowledge Digitalisation, Low-Code Platform.*

ABSTRAK

Penelitian ini bertujuan untuk mengeksplorasi kontribusi aplikasi AppSheet I-DO dalam meningkatkan product knowledge dan kinerja karyawan, terutama peran Konsultan Nivea Hansaplast dan Merchandiser Beiersdorf. Dengan pendekatan kualitatif-deskriptif eksploratif, penelitian ini melibatkan 11 informan melalui wawancara mendalam, observasi partisipan, dan dokumentasi. Hasil penelitian menunjukkan bahwa aplikasi Lingkungan Pengembangan Interaktif secara signifikan meningkatkan efisiensi pelatihan, pemahaman produk, dan kepercayaan diri dalam komunikasi produk. Fleksibilitas akses, kemudahan navigasi, dan pendekatan prototyping membuat Lingkungan Pengembangan Interaktif mudah diterima dan relevan dengan kebutuhan frontliner. Dampak positif terlihat dari pencapaian target penjualan di atas 100% dan peningkatan data pelanggan yang konsisten. Implementasi I-DO mencerminkan model transformasi sosial-teknis digital yang selaras antara teknologi, manajemen, dan pengguna. Aplikasi ini berfungsi sebagai alat pendidikan sekaligus platform strategis untuk membuat keputusan berbasis data, meningkatkan akuntabilitas individu dan kinerja kolektif. Temuan ini menekankan pentingnya digitalisasi dalam memperkuat kapabilitas sumber daya manusia dan daya saing organisasi. Studi ini memberikan dasar untuk mengembangkan strategi pelatihan digital berbasis aplikasi di sektor kerja lain, untuk mendorong kemampuan beradaptasi dan keunggulan organisasi dalam menghadapi dinamika industri digital.

Kata Kunci*: Pembelajaran Digital, Transformasi Digital, Transformasi Kinerja Karyawan, Digitalisasi Pengetahuan, Platform Low-Code.*

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INTRODUCTION

Digitalisation in human resource management has become an urgent necessity amidst the advancement of Industry 4.0, which demands efficiency, accuracy, and ease of access to information. Transformation, as a key aspect of the digital economy based on data utilisation, essentially involves the application of digital technology that significantly enhances business performance indicators such as workforce productivity and customer service (Zavyalova et al., 2022). One of the most crucial aspects that determines employee performance is mastery of product knowledge, especially for those in roles involving direct communication with consumers, such as promotional staff and merchandisers. Amidst increasing job demands, companies face several obstacles in the process of knowledge transfer to employees. The limited duration of training only three days unengaging printed learning materials, and restricted supervision of employees deployed across various retail locations pose major challenges in improving employees' understanding of the products they promote.

According to Chytiri (2019) and Ivančić et al. (2019), employees have different views on the work evaluation system, where most only understand the basic principles without studying them thoroughly. This view reflects a gap in understanding the objectives and mechanisms of performance evaluation in the work environment (Tekic & Koroteev, 2019). This lack of understanding can hinder the effectiveness of evaluation, reduce active employee participation, and reduce the potential for individual and organizational development. According to Kuzior et al. (2022), this condition indicates the need for a more comprehensive communication and training approach so that employees are able to understand and utilize the evaluation system optimally to improve work performance.

To overcome the lack of employee understanding of product materials, the AppSheet I-DO application was developed as an innovative digital information system. This application is designed to provide independent, fast, and flexible access to product knowledge, thus supporting continuous learning for employees (Elia et al., 2024). The implementation was carried out on 18 employees who acted as promoters and traders in various outlets. According to Nadkarni and Prügl (2021), the effectiveness of delivering information and product understanding ultimately contributes to more professional and responsive sales and customer service performance in the era of digital transformation. The main goal behind its development is to improve the quality of employee learning and ensure a shared understanding of the product without relying entirely on the presence of a supervisor (Fenech et al., 2019; Fenech, 2022).

The results of research by Dolan et al. (2022), Prokopenko et al. (2023), and Poulose et al. (2024) from the implementation of AppSheet I-DO showed a significant increase in product understanding, followed by an increase in employee performance in terms of product communication, customer service, and sales target achievement. The development of the AppSheet I-DO application as a self-learning platform for employees is in line with the findings of Firoz (2024), emphasized that the integration of information technology in job training can increase learning effectiveness while strengthening employee confidence. This application provides a solution to common obstacles in traditional training, such as time constraints, access to information, and the need for direct supervision (Felstead et al., 2010).

With flexible and easily accessible features, employees can learn according to their needs and rhythm without relying on face-to-face training sessions (Yee et al., 2018). This creates a more adaptive and proactive work environment in absorbing product knowledge (Bansal et al., 2023). In addition, this digital system also encourages individual independence and accountability, as each user is responsible for understanding the available material. The implementation of AppSheet I-DO is a strategic step in improving employee competency through a digital approach that is efficient and relevant to current industry needs. This research aims to explore in depth how the implementation of the AppSheet I-DO application contributes to improved product knowledge and to what extent it affects employee performance. The findings are expected to serve as a foundation for developing application-based digital training strategies in other labour sectors, to

strengthen organisational competitiveness through the enhancement of individual capacity.

LITERATURE REVIEW

Employee Performance Transformation

Employee performance transformation is a strategic process aimed at enhancing workforce capabilities, efficiency, and productivity in response to the dynamic challenges faced by organisations (Setiono & Hidayat, 2022; Vidhia, 2023; Zhang & Chen, 2024). According to Zhenjing et al. (2022), employee performance is influenced not only by individual competence but also by supporting work systems and environments that encourage innovation and collaboration. A high-quality work environment boosts employee motivation, engagement, and creativity. In the context of digitalisation, performance transformation is increasingly tied to technology adoption and the ability to adapt to changing systems. This is reinforced by Igbomor (2023), argues that modern employee performance is significantly shaped by strategic human resource management practices integrated with Information and Communication Technology (ICT), where ICT acts as a moderating factor that enhances the effectiveness of HRM in organisations. Andersen et al. (2006) also emphasise that improving employee performance requires a holistic approach, including data-driven performance monitoring, system adjustment, and continuous skill development. This supports the view that integrated performance management approaches are far more effective than traditional, often conflicting, methods (Widayati & Gunarto, 2017; Muliaty et al., 2017). Hence, digital technologies such as AppSheet are relevant tools for performance transformation, especially in accelerating information flow and supporting faster, more adaptive learning processes.

Product Knowledge Digitalisation

Product knowledge is an important element in the success of interactions between companies and consumers. According to Billett (2008), workplace knowledge is not only obtained from documents or formal training, but is also formed through continuous engagement in social practices and daily work experiences. Digital transformation allows the codification, distribution, and access of product knowledge to occur in real time and in a structured manner, making it easier for employees to understand the specifications, advantages, and methods of using the company's offerings. In the knowledge management framework, Nurnaninsih et al. (2023) emphasized that knowledge management systems play an important role in supporting the transformation towards a digital organization. This system includes various tools, technologies, and processes designed to facilitate the creation, storage, dissemination, and application of knowledge effectively across the organization (Cheng et al., 2023; Tang et al., 2023). Applications such as AppSheet are a strategic solution in building an internal digital system that can be easily accessed by all employees, even without advanced programming skills. With this low-code or no-code approach, organizations are able to accelerate the digitalization of learning and operational processes efficiently. In addition to increasing information accessibility, the implementation of this type of technology also strengthens cross-functional collaboration and accelerates data-driven decision-making (Sinurat, 2023). This simplifies product training, accelerates learning, and increases accuracy in customer communication. Research by Blichfeldt and Faullant (2021) shows that digitalization through technology adoption not only increases the efficiency of internal processes but also enables simultaneous product and service innovation, which ultimately improves overall business performance.

AppSheet as a No-Code Technology

AppSheet is a no-code platform developed by Google that allows users to build data-driven applications without programming skills. This technology has become part of the digital transformation trend due to its ease and efficiency in developing internal business solutions. According to Masili (2023), no-code platform development allows rapid

application creation without the need for complex programming skills. This capability makes no-code platforms an effective solution in supporting personalization systems and increasing management efficiency, especially amidst the acceleration of digital transformation. Through this approach, various internal processes can be automated and customized to the needs of the organization, thereby accelerating decision-making and information management. The flexibility and ease of use offered by no-code platforms also encourage employee participation in digital innovation, without relying entirely on the IT team. Furthermore, a study by Sundberg and Holmstrom (2023) shows that no-code technology can act as a key facilitator, allowing individuals from various roles within an organization to participate directly in developing digital solutions, thereby democratizing innovation and expanding access to internal technology creation processes. The use of AppSheet to improve product knowledge is an example of an integrated, effective, and scalable digital learning tool. This is supported by Saengrith et al. (2022), whose research found that technology-based training significantly improved employee skills, with knowledge retention remaining high even after the training ended.

Digital Learning Theory in Organisational Contexts

Digital learning is a learning approach that relies on information technology as the primary medium for accessing, delivering, and disseminating the learning process. According to Saengrith et al. (2022), the concept of connectivism emphasizes that learning takes place in a complex digital environment, where individuals build knowledge through connections with various technology-based information sources. In this context, the ability to access, manage, and share information effectively is key. Digital networks enable learning processes that are continuously evolving, adaptive, and collaborative, in accordance with the needs of an era that demands speed and connectivity of information. Knowledge is not only within individuals, but is also embedded across interconnected systems, organizations, and digital devices. In an organizational context, digital learning not only increases training efficiency but also supports continuous learning that is responsive to market needs. Yardley et al. (2012) state that experiential learning is the process of building knowledge and meaning based on experiences in the real world or in the workplace. In this case, the use of AppSheet as a product training medium provides employees with the opportunity to directly apply newly learned information through digital simulations, so that the learning process becomes more active and contextual. According to Fischer and Scharff (1998), self-directed learning is a continuous process in which individuals acquire, apply, and create knowledge based on their personal needs and the context of the challenges they face.

RESEARCH METHOD

This study uses a qualitative approach with a descriptive-exploratory design. This approach was chosen because it is able to describe and explore in depth the digital transformation process through the AppSheet I-DO application, as well as its impact on increasing employee product knowledge. According to Creswell (2015), a qualitative approach aims to understand the meaning that individuals give to a social phenomenon. Descriptive design is used to capture actual conditions, while exploratory design explores new innovations, such as the use of low-code platforms in job training (Sugiyono, 2017). The research was conducted at PT Semesta Mahsyur Indonesia, especially the Tangerang area, which is a representative location for the implementation of I-DO. The research subjects consisted of 18 active application user employees, namely 12 Nivea Hansaplast Consultants (NHC) and 6 Beiersdorf Merchandisers. The purposive sampling technique was used to select informants based on their direct involvement in using the application and training products, as suggested by Tongco (2007). Informants were selected based on three main criteria: frequency of interaction with the application, role in product training, and ability to provide insight into performance changes.

A total of 11 informants were involved in this study, including 8 application users and 3 from management and the development team. Data were collected through in-depth

interviews, participant observation, and documentation. Interviews were conducted to explore the experiences and perceptions of users and developers; observations looked at the purpose of using the application in daily work practices; and documentation was used to support field findings. The development of the I-DO application used a prototyping approach, namely gradual development involving direct feedback from users. This approach facilitates rapid and responsive system improvements. AppSheet as a low-code platform was chosen because it allows application development without advanced programming skills, supporting the efficiency of the organization's digitalization process. Data were analyzed using thematic analysis based on eight qualitative research quality criteria. The analysis was carried out inductively, connecting empirical data with user experiences in the digital learning process, in order to assess the effectiveness and impact of the I-DO application on employee knowledge development.

RESULTS

Management and Developer Views on I-DO

The use of the I-DO application in transforming employee performance at PT Beiersdorf Indonesia through the digitalization of product knowledge has a significant impact from a managerial and practical implementation perspective. In terms of management, I-DO facilitates real-time performance monitoring and data-based decision making (Chytiri, 2019; Ivančić et al., 2019; Tekic & Koroteev, 2019). In terms of implementation, this application allows employees to access training materials independently, flexibly, and sustainably. This transformation encourages increased product understanding, training efficiency, and responsiveness to market needs. I-DO is a real example of how digitalization can strengthen HR capabilities and increase organizational competitiveness in a dynamic business environment. For management teams, Management development, Business Units (BU), and People Development (PD), the I-DO application is designed as a solution to the company's need for a fast, scalable, and easily accessible product education platform. Conventional education methods are considered less effective in the current digital era due to time and space constraints (Nadkarni & Prügl, 2021; Elia et al., 2024). With Appsheet I-DO, all frontliners can access product information anytime and anywhere, thus ensuring uniformity of knowledge and readiness in facing customers. This application is a strategic innovation that increases training efficiency while supporting the company's overall digital transformation. This statement is reinforced by the developer's focus on user experience in designing the I-DO application sheet (Fenech et al., 2019; Fenech, 2022; Dolan et al., 2022).

The application design takes into account ease of navigation, an intuitive interface, and quick access to training materials, making it easy for employees to use the application without technical barriers. This approach ensures that users, especially frontliners, can make maximum use of the application to improve product knowledge and work performance. By paying attention to the user experience aspect, developers strive to create digital solutions that are not only functional, but also attractive and easy to adopt by all users. If the application is too complicated, frontliners tend to be reluctant to use it, so that the effectiveness of digital training decreases (Prokopenko et al., 2023; Poulose et al., 2024). Strategically, the Business Unit Head of PT Semesta Mahsyur Indonesia emphasized that I-DO was designed with ease of use so that it can be accessed without barriers by frontliners. This approach ensures a high adoption rate and has a direct impact on improving workforce capabilities. Through practical and flexible digital training, employees are able to improve their product knowledge and operational skills independently, which ultimately contributes to improving the company's performance and competitiveness in the market.

Not only time efficiency, but also better material retention. Frontliners who use I-DO tend to understand content faster and are more confident in explaining products to customers (Di Mascio, 2010; Lee, 2020). This finding is in line with Nivea Hansaplast Consultants' performance data which shows a consistent increase for three consecutive months in both sales, achievement and customer data growth (Artaya & Purworusmiardi,

2019; Prasetia, 2021; Nufuz & Graciafernandy, 2024). In the Tangerang area, sales achievement reached 101% in January, 102% in February, and 100% in March 2025. Customer data collection also showed a positive trend—from 389 entries in January to 453 in February, reaching 521 in March. Similar growth patterns were also seen in other cities: customer data increased in Jakarta from 620 to 780, in Bandung from 271 to 360, in Yogyakarta from 185 to 250, in Semarang from 198 to 295, and in Surabaya from 310 to 432 during the same period. Sales performance remained consistently above 100% in almost all operational areas.

Implications of I-DO Implementation in Performance Transformation

Referring to the socio-technical system theory of digital transformation by Imran et al. (2021), the implementation of the I-DO application reflects the harmonious integration of technical and social aspects in the organization. This application is not only a digital tool, but also part of a change in work culture, where employees are encouraged to adapt to new systems and increase their self-learning capacity. The collaboration between technology (AppSheet platform) and social elements (users, management, and developers) shows that the success of digital transformation is highly dependent on the alignment between technical systems and human dynamics (Tekic & Koroteev, 2019). The I-DO application sheet acts not only as a digital tool to improve operational efficiency, but also as a collaborative platform that unites various elements of the organization. Management acts as a strategic designer who determines the direction and goals of the system, developers provide technical solutions through the AppSheet platform, while front-line employees become end users who directly experience the benefits of the application in supporting product learning (Nadkarni & Prügl, 2021). This synergy creates a participatory digital ecosystem, where each party has an active contribution to the transformation process, thereby strengthening the integration of technology into the organization's work culture.

This is in line with the principle of co-optimization, which emphasizes that the success of digital transformation depends not only on technological sophistication, but also on the active participation of humans in the organization (Elia et al., 2024). The alignment between technology systems and user involvement allows for the creation of an adaptive, collaborative, and continuous learning process. Through this integration, organizations can build a learning culture that is responsive to change, encourage innovation, and continuously improve employee capabilities in facing operational challenges and dynamic market developments. I-DO is not just an educational tool, but a strategic instrument that supports data-based employee empowerment. This application allows employees to access training materials independently while providing usage data that can be analyzed by management to measure engagement, understanding, and further training needs. With this approach, training becomes more targeted and personalized. In addition to increasing learning efficiency, I-DO also strengthens data-based decision-making, making it an important part of an adaptive and sustainable human resource development strategy in the digital era.

This is in line with the views of Motamarri et al. (2017), who emphasized that in services driven by big data analysis, frontline employees must have access to relevant information, supporting technological tools, and adequate organizational support. This access allows them to respond to customer needs in real time, improve service quality, and encourage faster and more accurate decision-making. With digital support such as the application, employees can gain product knowledge instantly and accurately, so they are better prepared to face market dynamics and changing customer expectations. Through I-DO, employee empowerment is reflected in their ability to independently understand performance, monitor target achievement, and adjust service strategies. This application provides visibility in operational data in real time, allowing employees to identify strengths and areas for improvement. With fast and relevant access to information, they can make more informed decisions to drive increased sales results and

work efficiency. I-DO not only strengthens individual control over performance but also fosters responsibility and initiative in achieving organizational goals more proactively.

DISCUSSION

This study reaffirms that the digital transformation facilitated by the I-DO application has significantly enhanced product knowledge and the performance of front-line employees at PT Beiersdorf Indonesia, supporting Jehangir et al.'s (2012) findings on the strategic value of digital learning tools in organizational contexts. The shift from conventional, face-to-face training to a flexible, application-based model aligns with adult learning theory (andragogy), which emphasizes self-directed learning and relevance to the learner's immediate work environment (Knowles, 1984). Furthermore, the integration of monitoring features in I-DO embodies the principles of data-driven employee empowerment, as described by Motamarri et al. (2017), where learning outcomes are tracked and used to inform development strategies. The interactive and gamified learning experience increases cognitive engagement and retention, consistent with cognitive load theory and findings by Panjaitan and Siahaan (2025). Additionally, enhanced confidence in product communication, as expressed in Nivea Hansaplast Consultants (NHC) interviews, suggests a positive transfer of training to real customer interactions and an often-missing link in training effectiveness studies (Baldwin & Ford, 1988). This highlights not only functional improvements but also behavioral change driven by digital innovation.

The implementation of the I-DO application has significant practical and managerial implications, particularly in enhancing learning flexibility and employee empowerment. Managers benefit from improved oversight of training progress through usage analytics, enabling more targeted feedback and interventions aligned with individual needs (Motamarri et al., 2017). Additionally, the mobile-based format allows employees to utilize idle time productively, accessing concise, interactive content that supports just-in-time learning highly valuable in dynamic retail environments (Tekic & Koroteev, 2019; Elia et al., 2024). However, technical challenges persist. Several informants cited device limitations and poor connectivity, especially when accessing video-based materials, indicating gaps in the supporting digital infrastructure (Artaya & Purworusmiardi, 2019; Prasetia, 2021; Nufuz & Graciafernandy, 2024). These limitations risk excluding users with restricted access to reliable technology. To overcome this, organizations should invest in infrastructure improvements and provide adequate devices, while offering digital literacy training. Incorporating hybrid learning models and structured feedback mechanisms may further enhance inclusivity and effectiveness (Nadkarni & Prügl, 2021; Fu et al., 2023).

The correlation between I-DO usage and performance achievement also confirms that digitalised training has a real impact on productivity. Data show improvements in sales targets and customer data collection during the January-March 2025 period. Merchandising performance and Beiersdorf Merchandisers (BM) success in PO negotiations also exceeded set targets. These achievements reflect not only the effective implementation of the system but also that stronger product understanding contributes directly to performance outcomes. Referring to sociotechnical system theory Imran et al. (2021), the use of I-DO illustrates how front-line training system changes can trigger structural and sustainable performance transformation. For optimal results, however, there must be stronger integration between technology, infrastructure support, and incentive systems that promote active user participation (Sinurat, 2023; Cheng et al., 2023; Tang et al., 2023). Regular evaluation of content effectiveness and user performance will also be key to sustaining this innovation (Mukhlis & Tyas, 2024; Nurdiniati et al., 2024). Thus, while I-DO has successfully driven positive change in training systems and employee performance, its success relies heavily on consistent management support, infrastructure reliability, and sustained user engagement.

CONCLUSION

This study highlights the transformation of employee performance through the implementation of the AppSheet I-DO application at PT Semesta Mahsyur Indonesia, Tangerang Branch, which aims to improve product knowledge digitally. This application has proven effective in improving work efficiency and the quality of employee-consumer interactions, especially for two main roles, namely Nivea Hansaplast Consultants (NHC) and Beiersdorf Merchandisers (BM). From a managerial perspective, I-DO effectively addresses the need for a more modern, concise, and accessible product education method. Management noted that this application not only accelerated content mastery but also increased employee confidence in communicating products. On the user side, most NHCs and BMs reported that this application improved material understanding and enabled flexible and independent learning, although technical challenges related to devices and connectivity remained. In short, the AppSheet I-DO application not only functions as a digital education medium but also as a tool to transform the way of working and increase productivity. This study recommends further technical development (e.g., offline access and excellent performance on low-end devices) and ongoing training to maximize application usage among all employees. Furthermore, this digital transformation model can be a reference for other companies that want to implement technology-based learning strategies to strengthen human resource capabilities in the digital era. This study shows that integrating easy-to-use technology into daily workflows can result in sustainable behavioral changes and improved organizational performance. This study is limited to one branch and focused on a relatively homogeneous user group. These limitations indicate the need for broader implementation testing across different regions, infrastructures, and organizational cultures. Future research should also explore the longitudinal impact of the application, including knowledge retention, job satisfaction, and career development trajectories over time.

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