

ASSESSING THE HUMAN DIMENSION OF DIGITAL LEADERSHIP TO SUCCESSFUL DIGITAL TRANSFORMATION

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ABSTRACT

All industries are experiencing significant changes due to Industry 4.0 and the upcoming Industry 5.0. These advancements will greatly impact the industry globally over the next five years. Therefore, several companies are undergoing digital transformation. Successful digital transformation relies on various factors, with leadership being crucial for setting a vision and driving change. By undertaking digital transformation, companies ensure their leaders continuously develop essential digital leadership skills. According to the assessment at PT X a state-owned enterprise in Indonesia engaged in transportation and logistics, the results indicate a gap between employees' current digital leadership competencies and the required level. This study aims to improve digital leadership competency at PT X. Objectives include identifying existing training programs, evaluating digital leadership dimensions needing improvement, and determining necessary improvements. The study uses the Digital Leadership Scale by Haroon Abbu et al. (2022), with a quantitative design involving 124 respondents. Findings show that digital leadership is part of the leadership development program, tailored to job levels from junior managers to executive presidents. The lowest scores based on assessment are in skill acquisition and courage, indicating areas for improvement. This research provides insights into digital leadership and competency improvement, crucial for successful digital transformation.

Keywords : Leadership; Digital Leadership; Digital Leadership Competency; Digital Transformation

ABSTRAK

Industri di seluruh dunia sedang mengalami perubahan signifikan akibat dari Industri 4.0 dan Industri 5.0 yang akan datang. Kemajuan ini akan berdampak besar pada industri secara global dalam lima tahun ke depan. Oleh karena itu, beberapa perusahaan melakukan transformasi digital. Transformasi digital yang sukses bergantung pada berbagai faktor, dengan kepemimpinan menjadi kunci untuk menetapkan visi dan mendorong perubahan. Dengan menjalankan transformasi digital, perusahaan memastikan para pemimpinnya terus mengembangkan keterampilan kepemimpinan digital yang esensial. Berdasarkan penilaian di PT X, sebuah Badan Usaha Milik Negara di Indonesia yang bergerak di bidang transportasi dan logistik, hasilnya menunjukkan adanya kesenjangan antara kompetensi kepemimpinan digital pegawai saat ini dan tingkat yang dibutuhkan. Penelitian ini bertujuan untuk meningkatkan kompetensi kepemimpinan digital di PT X. Tujuannya termasuk mengidentifikasi program pelatihan yang ada, mengevaluasi dimensi kepemimpinan digital yang perlu ditingkatkan, dan menentukan perbaikan yang diperlukan. Studi ini menggunakan Skala Kepemimpinan Digital oleh Haroon Abbu et al. (2022), dengan desain kuantitatif yang melibatkan 124 responden. Temuan menunjukkan bahwa kepemimpinan digital merupakan bagian dari program pengembangan kepemimpinan, yang disesuaikan dengan tingkat jabatan dari manajer junior hingga presiden eksekutif.

Skor terendah berdasarkan penilaian ada pada akuisisi keterampilan dan keberanian, menunjukkan area yang perlu ditingkatkan. Penelitian ini memberikan wawasan tentang kepemimpinan digital dan peningkatan kompetensi yang penting untuk transformasi digital yang sukses.

Kata Kunci : Kepemimpinan; Kepemimpinan Digital; Kompetensi Kepemimpinan Digital; Transformasi Digital

INTRODUCTION

All industries are experiencing a major shift with the rise of Industry 4.0 and the impending development of Industry 5.0, which will significantly influence the industry's trajectory over the next five years globally. Companies with a strong focus on operations have entered a new era of automation and digitization, which significantly affects the type of talent they need to remain competitive. To face the industrial transformation triggered by Industry 4.0 and Industry 5.0, with 80% of its customers coming from the millennial and Gen Z generations PT X is a State-Owned Enterprise in Indonesia, operating in the transportation and logistics sector since 1945. Its operational areas include the islands of Java and Sumatra, with 9 operational regions and a head office on Java, as well as 4 regional divisions and one regional sub-division on Sumatra. PT X continues to evolve and improve its services, one of which is by undertaking digital transformation in three key areas: Business, Technology, and Organization. Therefore, companies must prioritize improving the abilities and skills of workers which can be done in several ways, including by conducting upskilling and reskilling to ensure that their human resources have the necessary skills to face technological changes, and the demands of a growing, competitive, and sustainable company.

The success of digital transformation is determined by a range of factors and is influenced by several key elements. According to Davenport & Redman (2020) at Harvard Business Review emphasize that talent is the key factor, "The single most important step in digital transformation is assembling the right team who can work together and a strong leader who can bring about change". Leadership plays a crucial role in guiding the organization through this transformative journey, setting a vision, and driving the necessary changes. By undertaking digital transformation, companies are taking proactive steps to ensure that every leader within the organization possesses and continuously develops digital leadership competencies.

Based on the PT X assessment center, it is known that there is a gap between the results of the employee competency assessment and the level of competence required for their position on digital leadership competencies. It indicates a deficit or misalignment within the company, specifically in terms of the leaders' proficiency in digital leadership skills. In this context, a negative gap suggests that the current level of competence is below the desired or expected standard. Addressing this gap is crucial for PT X to remain competitive and resilient in the face of digital transformations. Closing the deficit in Digital Leadership competencies is vital for ensuring that leaders within PT X is well-prepared to manage the complexities of the digital era and effectively lead the organization toward its strategic goals. By systematically addressing the digital leadership competency gap, PT X can enhance its workforce's readiness and ability to effectively drive and support digital transformation initiatives, ultimately leading to improved operational efficiency, customer service, and competitiveness in the railway transportation sector. The purpose of this study is to improve digital leadership competency at PT X.

LITERATURE REVIEW

Digital Leadership

The relationship between diverse forms of human capital and business outcomes has seen significant advancement in recent years. Effective management of human resources is critical for fostering peak organizational performance, as a strong correlation exists between human capital and overall business success (Hasanah & Sunarti, 2022). In the digital era, human capital plays a crucial role in developing organizational capability. Human capital is the most valuable resource in any economy or organization, a pivotal element influencing a company's prosperity and contributing substantially to economic growth, technological advancement, and economic transformation. Human capital comprises the workforce's collective knowledge, characteristics, skills, experience, and well-being. Each individual brings a unique and dynamic set of capabilities, and it is up to the individuals to determine how and where to apply them (McKinsey, 2022). In the digital age, the economic landscape is primarily characterized by extensive digitization, significant technological advancements, and innovation. Consequently, businesses must generate and deliver products and services with high value, secure competitive advantages against rivals, and enhance the

efficiency of their management processes (Temelkova & Fornaci, 2018). Hence, digital technology requires a change in the role of a leader.

Due to the process of digitalization, leaders must recognize the evolving nature of their work environment and associated demands. Leaders are taking on a crucial role in advancing the digital transformation agenda (Adie et al., 2022) not only through strategic planning and influencing employee behavior (Bunjak et al., 2022; Nguyen & HOOI, 2020) but also by setting an example in driving change (Imran et al., 2020; Zulu & Khosrowshahi, 2021). The digital transformation of companies also encourages the development of a digital mindset among leaders. They need to possess the capability to seamlessly and proficiently incorporate digital technologies into both their daily tasks and the workflow of their employees (Hensellek, 2022). Digital technology has fundamentally altered how individuals communicate and engage with one another, as well as how businesses function in the market. This transformation has also shifted the role of leadership from the conventional "command and control" approach to one centered around "communication and cooperation" (Gozman & Willcocks, 2019). Therefore, leaders must acquire new skills to enable their organizations to effectively navigate the ambiguity and complexity of the environment, guiding them toward a more dynamic future.

Throughout history, the advancement of technology has been pivotal in shaping diverse leadership approaches. Leadership has, as a result, taken on various forms characterized by elements such as hierarchy, power dynamics, authority, and individual personalities. However, in the digital economy, the landscape of leadership is undergoing significant changes due to the impact of digitization, necessitating adjustments in styles and skill sets (DeAraujo et al., 2021), and bringing new challenges for leaders. Adapting to the uncertain business landscape and elevating their digital proficiency is imperative for leaders to steer their companies successfully. Effective leadership is fundamental to a successful journey of digital transformation. In response to the growing intricacies and dynamic demands, digital leadership concepts have surfaced as the most applicable styles of leadership.

Digital leadership is a leadership approach centered on driving digital transformation within an organization. It involves the strategic use of a company's digital assets to achieve its business goals. Digital leadership is recognized as a dynamic,

team-oriented, cross-hierarchical leadership style characterized by its rapidity and emphasis on fostering innovation within the organization (Oberer & Erkollar, 2018). Digital leadership takes into account various factors, encompassing creativity, profound expertise, a global perspective with collaboration, critical thinking, continuous curiosity and learning, and a keen awareness of digital opportunities (Zhu et al., 2022). Digital leadership comprises two key dimensions: 1) the attitude and proficiency in employing technology, and 2) awareness of digital transformation processes along with the necessary capabilities to implement digital strategies within the organization (Zeike et al., 2019).

Digital Leadership Scale

Digital leadership is crucial for the success of an organization. At the executive level, it involves leading digital transformation, fostering a culture that prioritizes digital initiatives, and positioning the organization for future work trends. On a managerial level, digital leadership skills are utilized to boost team or departmental effectiveness, enhance customer experience, expedite time to market, implement solutions, improve communication, and derive insights from data (EHL Insights, 2023). Consequently, there arises a pressing need to conduct a thorough evaluation of digital leadership competency within companies currently immersed in the dynamic process of digital transformation. Recognizing the pivotal role of leadership in navigating the complexities of adapting to the digital landscape, the evaluation process becomes an essential undertaking. Employing tools such as The Digital Leadership Scale with its 15 dimensions adds a structured approach to this assessment. This comprehensive scale serves as a valuable checklist, meticulously designed to measure the human dimensions essential for successful leadership in the context of digital transformation. The Digital Leadership Scale with 15 dimensions is employed as a comprehensive tool designed to gauge the human aspects essential for successful leadership in the realm of digital transformation. This scale is specifically crafted to assess the human qualities that contribute to successful leadership in the context of digital initiatives. It is a practical instrument for leaders, enabling them to evaluate their readiness and proficiency in driving digital transformation (Abbu et al., 2022). The dimensions encompass a range of attributes that are shown in Figure 1.

Honesty

Honesty is defined as the quality of being truthful and sincere in one's words and actions. It involves being transparent, reliable, and free from deceit or fraud. In the context of digital transformation, assessing honesty involves closely examining its interpersonal manifestations, particularly how honesty is expressed by digital leaders and its impact on the overall success of digital transformation initiatives (Abbu et al., 2022). Working Definition: An assessment of the leader's moral character that connotes positive and virtuous attributes such as integrity, truthfulness, and straightforwardness. Honesty also involves being trustworthy, loyal, fair, and sincere (Abbu et al., 2022).

Humility

Humility is the quality of being humble, characterized by a lack of pride or arrogance. Within the realm of digital transformation, humility focuses on how the leader displays humility externally within a business interaction (Abbu et al., 2022). Working Definition: An assessment of the leader's modest view of their importance that is, their humbleness (Abbu et al., 2022).

Courage

Courage is the trait of being prepared and willing to confront challenging situations that involve danger or pain. A leader grappling with anxiety tends to ignore the threatening aspects of changing circumstances, setting off a chain reaction among employees throughout the organization (Abbu et al., 2022). Additionally, courage is a fundamental requirement for effectively navigating the domain of honesty. Working Definition: An assessment of the leader's mental or moral strength to venture, persevere, and withstand danger, fear, or difficulty (Abbu et al., 2022).

Ethical AI

The widespread adoption of AI across industries has underscored the significance of AI ethics in the realm of digital leadership (Abbu et al., 2022). Recent advancements in machine learning and neural networks have empowered the integration of artificial intelligence (AI) in areas such as hiring, criminal justice, healthcare, and various other applications. While machine learning technology holds great promise, it also emphasizes the potential for unintended biases, necessitating careful planning to mitigate such issues (DeBrusk, 2018). Addressing ethical issues regarding the utilization of AI in both data usage and managerial tasks is a crucial subject for digital leaders to consider (Cortellazzo et al., 2019). Working Definition: An assessment of a leader's

ability to do everything in their power to ensure the results of AI and other technologies employing machine learning models, are fair and explainable (Abbu et al., 2022).

Growth Mindset

Studies indicate that those with a growth mindset acquire crucial skills for handling professional changes, including more adept problem-solving approaches and adeptly managing feedback (Gottfredson & Reina, 2020). In the realm of digital transformation, the ability to adapt, innovate, and continually develop is crucial for leaders. Embracing a growth mindset can significantly impact success and resilience in a constantly changing environment. view challenges as chances for growth and believe that effort is the key to achieving mastery. Working Definition: An assessment of the leader's desire to tackle new challenges and grow as a person (Abbu et al., 2022).

Transparent Agenda

Transparency, which involves an employer using clear and simple language to communicate information, motives, and decisions important to employees, is a crucial aspect of trust (Reichheld & Dunlop, 2023). Freely sharing information about decisions, outcomes, strategies, and practices with employees, customers, investors, and other stakeholders is generally considered beneficial. In an organizational context, transparency is typically understood as the flow of information from the leadership team to all other members. However, new digital advancements have enabled transparency within teams as well, allowing worker information to also be made transparent (Flynn et al., 2024). A leadership approach characterized by transparency fosters valuable feedback, enabling leaders to implement strategic adjustments that might otherwise be missed (Tardieu et al., 2020). Working Definition: An assessment of a leader's ability to openly share information about the business strategy with employees, which is necessary for collaboration, cooperation, and collective decision-making (Abbu et al., 2022).

Data Focus

Data provides some exciting opportunities for businesses. Proficiency in processing, analyzing, prioritizing, and making decisions based on data has become a fundamental skill for achieving success (Abbu et al., 2022). The focus on data represents a pivotal aspect of digital leadership, as many companies are actively attempting to implement analytics at scale, with only a select few achieving notable

success in this endeavor (Bisson et al., 2018). Working Definition: An assessment of a leader's ability to encourage the application of data and analytics everywhere, including their decision-making (Abbu et al., 2022).

Inspire Engagement

Fostering engagement is a key aspect of transformational leadership and plays a substantial role in the success of digital transformation. Leaders face unique challenges and opportunities that necessitate a strong ability to motivate and inspire their teams. Employee engagement represents an individual's outlook on their work within the organization, encompassing feelings of vitality, commitment, and absorption; cognitive evaluations of psychological empowerment; and the impetus to contribute to the organization's overarching goals (Abbu et al., 2022). Working Definition: An assessment of a leader's ability to stimulate people's interest in or enthusiasm for doing something (Abbu et al., 2022).

Utilizing stories proves to be a highly effective method for conveying information and a transformative vision. A well-crafted narrative can be equally impactful in informal word-of-mouth communication among employees. Hence, organizations should enable their innovation teams to master the art and science of innovation storytelling (Taylor, 2021). In this context, storytelling emphasizes leaders' recognition of the importance of effective storytelling and its application in communication (Abbu et al., 2022). Working Definition: An assessment of the leader to inspire employees and gain buy-in (Abbu et al., 2022).

Digital Literacy

A profound understanding of technological potential empowers leaders to craft a compelling vision and motivate employees to actively participate from the outset (Kane et al., 2019). In instances where digital literacy competencies are lacking, digital leaders should cultivate and nurture such skills within the team to effectively harness the benefits of digital transformation (Cortellazzo et al., 2019). As digital literacy priorities vary across industries, the key inquiries revolve around the degree to which digital leaders both require and encourage digital literacy among themselves and their teams (Abbu et al., 2022). Working Definition: An assessment of a leader's ability to develop digital competencies within the leadership team (Abbu et al., 2022).

Positive Attitude

Maintaining a positive attitude is essential for expressing emotional responses such as recognition, gratitude, and praise. In evaluating positive attitudes in this context, the focus should be on how this positivity is demonstrated within the business environment, which is particularly crucial for digital leaders (Abbu et al., 2022). Working Definition: An assessment of a leader's ability to carry themselves like champions and purposefully show their positivity in how they behave and communicate (Abbu et al., 2022).

Skill Acquisition

Digital skills encompass a variety of proficiencies in utilizing digital devices, communication apps, and networks for information access and management. These skills allow individuals to produce and disseminate digital content, engage in communication and collaboration, and address challenges for effective and creative self-fulfillment in various aspects of life, learning, work, and social activities (UNESCO, 2018). For digital leaders, the crucial task is to recognize, attract, and motivate individuals possessing these continually evolving skill sets (Abbu et al., 2022). Working Definition: An assessment of a leader's ability to influence digital talent acquisition and development for the organization (Abbu et al., 2022).

Knowledge Sharing

Creating a system that facilitates the dissemination of knowledge from individuals to the entire group is identified as the most effective means of spreading knowledge and expertise throughout an organization (Boe & Torgersen, 2018). The assessment of knowledge sharing focuses on the leader's role, emphasizing the necessity for leaders to actively encourage knowledge sharing to achieve successful digital transformation (Abbu et al., 2022). Working Definition: An assessment of a leader's ability to enable access to knowledge and improve learning (Abbu et al., 2022).

Participative Style

Digital leaders are expected to adopt a leadership approach that not only encourages team participation but also involves their active engagement in team activities (Schwarz Müller et al., 2018). According to (Pentland, 2012) effective team-oriented leaders initiate short, high-energy conversations, adopt a democratic approach to employees' time, maintain equal communication with all team members, and ensure that everyone has an opportunity to contribute. Working Definition: An assessment of a

leader's ability to develop a collaborative and inclusive way to approach problems and opportunities (Abbu et al., 2022).

Track Record

The track record aspect represents a transactional aspect within digital leadership, specifically of the leader. When considering a leader's track record, the success of any transformational initiative inevitably revolves around quantifiable outcomes, irrespective of whether they are favorable or unfavorable (Prince, 2018). Working Definition: An assessment of the leader's digital initiatives to produce meaningful results (Abbu et al., 2022).

RESEARCH METHOD

This study adopts the Digital Leadership Scale with 15 dimensions, as developed by Haroon Abbu et al. in 2022. The survey that was distributed through a Google Form was conducted to assess and identify gaps in digital leadership competency within the company. The respondents for this survey were specifically selected from various organizational roles, including assistant managers, managers, vice presidents, and executive vice presidents of PT X. The secondary data used comes from company documents such as company reports and literature. The company report and literature are used to determine the current skills and competencies of the company.

Data analysis was conducted using SPSS 25.0 to evaluate the validity and reliability of the data. The reliability of the constructs was measured with Cronbach's alpha, and descriptive tests were also performed. Moreover, content analysis was used to review company documents and literature, such as company reports and academic publications, to determine the current skills and competencies within the organization.

Categorical variables are types of data that can be divided into distinct groups.. The process of interpreting scores obtained from subjects involves using descriptive statistics such as the mean, and standard deviation, along with the minimum and maximum scores. Data categorization for this research is shown in Table 1.

RESULT AND DISCUSSION

PT X has 4 leadership development programs, each tailored to the development needs of participants at different stages of their careers. The purpose of these leadership development programs is to prepare company leaders who can compete with other SOEs by fulfilling the necessary leadership competencies.

PT X applies a development model that is carried out both individually and in groups. Individually, employees are given a development program according to Principle 70:20:10, with the following explanation:

- Principle 70, employees are rotated every year and assigned special projects.
- Principle 20, employees receive guidance from both internal and external coaches.
- Principle 10, employees participate in training and development programs in line with the Learning Development System.

This framework is designed to develop leaders at various levels within an organization by providing tailored programs that address the specific needs and competencies required for their roles. The 10:20:70 model ensures a balanced approach to learning, emphasizing practical experience supported by structured training and mentoring. The inclusion of digital leadership competencies into PT X's Leadership Development Program (LDP) represents a strategic move aligned with the contemporary business environment, the imperative for organizations to undergo digital transformation.

Based on the survey data collected from PT X employees, 124 respondents completed the questionnaire. The findings show that 45.97% of the respondents, or 57 employees, are in grade 12. Additionally, 25% of the respondents, totaling 31 employees, are in grade 13. 16 respondents, making up 12.9%, are in grade 14. There are 9 employees, accounting for 7.26%, in grade 15; 9 employees, representing 7.26%, are in grade 16; and 2 employees, or 1.61%, are in grade 17. This is shown in Figure 2.

Figure 3 shows the survey results, a significant majority of the respondents, specifically 83.87% or 104 individuals, hold positions as Managers or specialists at equivalent levels within the organization. This indicates that most participants hold positions involving significant operational duties and specialized expertise. Additionally, 15.32% of the respondents, amounting to 19 individuals, are positioned as Vice Presidents (VP), signifying a substantial proportion of the participants are in senior leadership roles with strategic oversight and decision-making authority. Moreover, 1% of the respondents, represented by two people, hold the position of Executive Vice President (EVP), indicating the presence of top-level executive management among the survey participants. This distribution of roles among the respondents reflects a

comprehensive representation of different managerial and executive levels within the organization.

The frequency test results of the Digital Leadership Scale as shown in the Table 2 reveal strengths and areas for improvement in leadership qualities crucial for digital transformation. Leaders excel in inspiring engagement and maintaining a positive attitude (123), as well as demonstrating high levels of honesty and embracing a growth mindset (122). They also exhibit humility and prioritize transparency in their agendas (121). These strengths indicate effective leadership qualities that contribute positively to fostering collaboration, trust, and innovation within organizations undergoing digital transformation.

The results also point out areas where leaders can improve, particularly in enhancing their skill acquisition (73), courage (84) in decision-making, ethical AI practices (107) regarding artificial intelligence applications, and storytelling effectiveness (115). These findings suggest opportunities for leaders to focus on developing these specific competencies to strengthen their overall effectiveness in guiding successful digital transformations. Improving these areas can enhance leadership capability in navigating challenges and driving innovation within their organizations.

Figure 4 shows a detailed comparison of the data obtained from each grade across all dimensions, illustrating how different grades performed within each dimension. Based on the Figure 4, it is observed that the grades with the lowest scores are as follows: Grade 13 scored 2.968 for honesty, Grade 12 scored 2.965 for humility, Grade 14 scored 1.750 for courage, Grade 16 scored 2.889 for growth mindset and transparent agenda, Grade 12 scored 2.930 for data focus, Grade 12 scored 2.982 for inspire engagement, Grades 15 and 16 scored 2.889 for storytelling and digital literacy, Grade 12 scored 2.982 for positive attitude, Grade 14 scored 1.688 and Grade 16 scored 2.444 for skill acquisition, Grade 16 scored 2.778 for knowledge sharing, and Grades 15 and 16 scored 2.889 for participation style and track record.

Based on Figure 4 above, the skill acquisition dimension has the lowest score among the others, particularly in grades 14 and 16. This suggests that the leaders are struggling to influence digital talent acquisition and development within their organization. This low score may indicate that they are not effectively recognizing,

attracting, and motivating individuals possessing continually evolving digital skill sets. A lower score here might suggest a need for improvement in actively fostering digital skill development among teams, which is crucial for effectively leveraging digital transformation opportunities (Abbu et al., 2022).

According to the results, the skill acquisition dimension for grade 14 and grade 16 scored the lowest, with values of 1.688 and 2.444, respectively. Grade 14 corresponds to managers, while grade 16 corresponds to vice presidents. Not all managers and vice presidents are directly involved in talent acquisition. Only those in the MCO and MCA departments are actively involved. This is because the company has sub-departments responsible for recruitment. In this process, several sub-departments are involved: MCOP, a sub-department under MCO responsible for workforce planning, and MCAR, a sub-department under MCA responsible for employee recruitment. Therefore, not all managers or vice presidents are directly involved in talent acquisition, except vice presidents whose departments require additional staff. These vice presidents submit requests to the MCOP sub-department, which evaluates and aligns them with organizational needs. MCOP then forwards the requests to the Director of Human Capital or the President Director for approval. Once approved, MCOP coordinates with MCAR to initiate the recruitment process.

Every leader expects their employees to possess the necessary digital skills required by their department. In the employee development process for general skill development, managers, with the approval of the VP, submit requests for training for employees who need it, based on their performance. These requests are submitted to the MCDD sub-department. Regarding digital skills, the company generally requires all employees to have competency in digital literacy. This competency involves understanding the needs and mastering the use of hardware, software, and other technologies related to their work.

The dimension of courage has the second-lowest score, particularly in grades 14 and 12. This low score indicates that leaders are struggling to take action for meaningful purposes, especially when facing fear or perceived threats. It suggests that these leaders may lack the mental or moral strength to venture, persevere, and withstand danger, fear, or difficulty. In the context of digital transformation, this can have significant implications. A lack of courage may result in leaders avoiding necessary but

challenging decisions and actions. This avoidance can trigger a chain reaction of anxiety and resistance to change among employees, undermining the overall success of digital initiatives. Moreover, courage is crucial for honesty, as employees seek leaders who are brave enough to be transparent and truthful, even in difficult situations. The low scores in this dimension highlight a need for development in fostering courageous leadership to navigate the complex landscape of digital transformation effectively.

The score for grade 14 managers was 1.750. These managers, who are in senior positions, have a heavier workload than their peers in other grades. Their decision-making process or taking action for meaningful purposes involves many considerations due to the complexity and importance of their roles. Grade 14 managers have more responsibilities and a broader scope of decisions compared to other managers. This means the decisions they make often have a significant impact on company policies and operations. As a result, they need to conduct thorough and detailed analyses to ensure their decisions are well-informed and effective. Additionally, despite their seniority and experience, they still require approval from their superiors for crucial decisions. This ensures that all significant actions are aligned with the company's overall strategy and goals.

Based on the thorough analysis presented in the previous chapter, it has been identified that skill acquisition and courage are the dimensions that require significant improvement across all levels of the company. To tackle these deficiencies, the proposed business solution will outline targeted strategies to foster skill acquisition and enhance courage.

Skill Acquisition in digital leadership pertains to the ability of leaders to effectively identify, attract, and develop digital talents within an organization. This competency is crucial for the successful implementation of digital transformation initiatives. Courage in digital leadership is the leader's ability to take meaningful action despite potential risks or challenges, particularly in digital transformation. Courageous leaders are crucial for successfully navigating the complexities and uncertainties associated with adopting new technologies and processes.

The outlined business solution incorporates essential components aimed at improving a leader's effectiveness in identifying, attracting, and developing digital

talents within the organization, and taking meaningful action despite potential risks or challenges, particularly in the context of digital transformation.

The company needs to conduct socialization about the ongoing digital transformation with all employees to align goals and foster a sense of belonging among them. After that, the company can perform a skill gap analysis related to digital skills. For a company, the skill gap analysis can be used to identify which employees have the greatest expertise in particular aspects of the business and identify those who have gaps in their skills. HR, in collaboration with team leaders and sometimes external consultants, performs a skills gap analysis to determine which specific digital skills and knowledge are missing among employees. This approach assists business leaders and stakeholders in making critical investment choices, and helps HR professionals with strategic decisions in recruitment and development programs. It can be different from one department to another department, but all of the talent needs to be assessed for their basic skill of digital.

Once the results of the gap analysis are known, the company can recruit individuals with the critical skills needed. Employees with greater experience are likely to possess stronger skills and more knowledge, enabling them to fulfill their duties in line with performance standards. An individual who requires minimal training can begin executing their duties faster than someone who needs extensive training. Additionally, the company can develop personalized learning plans for each employee. It's crucial to create coherent, skills-based strategies, carefully identifying which specific skills to target, who needs to acquire them, and the optimal mix of education, experience, and exposure to develop the skills-based organizations necessary to tackle future challenges (Satell et al., 2023). To monitor the progress of each employee's skills, managers can conduct monthly talent reviews.

Meanwhile, to enhance courage capabilities, every leader needs to improve their data analysis skills. Data analysis can provide valuable insights that help calculate risks more accurately and assist in the decision-making process. By leveraging data, leaders can make informed decisions, anticipate potential challenges, and develop strategies that are both effective and efficient. In addition, the company can provide simulation-based learning focusing on management skills to its leaders. Simulations are “authentic environments that allow users to engage with models of various situations and

phenomena” (McAlpin et al., 2023) . On the other hand, leaders need to leverage emotional intelligence. Having a grasp on and controlling emotions is a valuable skill for leaders. Emotional intelligence enhances decision-making accuracy, improves communication, and strengthens stress management. In many research, emotions have been shown to significantly influence the exhibition of managerial courage.

CONCLUSION

Based on the company report, PT X offers three leadership development programs: ELDP, SLDP, OLDP, and MLDP. These programs are tailored based on participants' job positions. The leadership development programs are structured around the 70:20:10 principle. One of the competencies emphasized in these programs is digital leadership. Findings indicate that the human dimension of digital leadership with the lowest scores includes skill acquisition and courage. Therefore, these dimensions need to be developed or improved. Skill acquisition refers to a leader's ability to influence digital talent acquisition and development within the organization. Courage involves a leader's mental or moral strength to venture, persevere, and withstand danger, fear, or difficulty. To bridge the digital leadership gap at PT X, the recommended solutions that can be applied within the company are conducting socialization sessions on digital transformation for all employees, performing a skill gap analysis related to digital skills for all employees, recruiting employees who possess critical skills needed by the company, providing personalized learning opportunities for the employee to enhance their skills, enhancing data analysis capabilities, leveraging emotional intelligence.

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GAMBAR, GRAFIK DAN TABEL



Figure 1 Framework and Dimension of The Digital Leadership Scale
 Source: (Abbu et al., 2022)

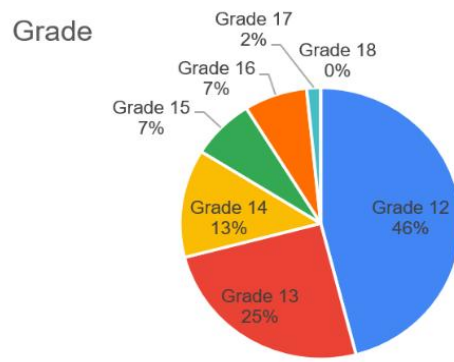


Figure 2 Level of Respondent

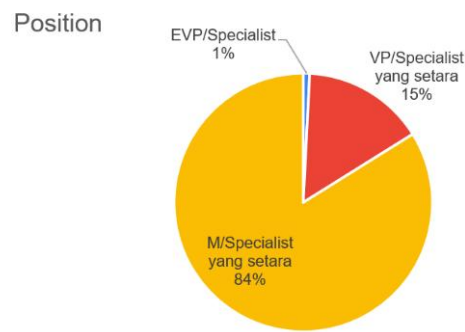


Figure 3 Position Level of Respondent

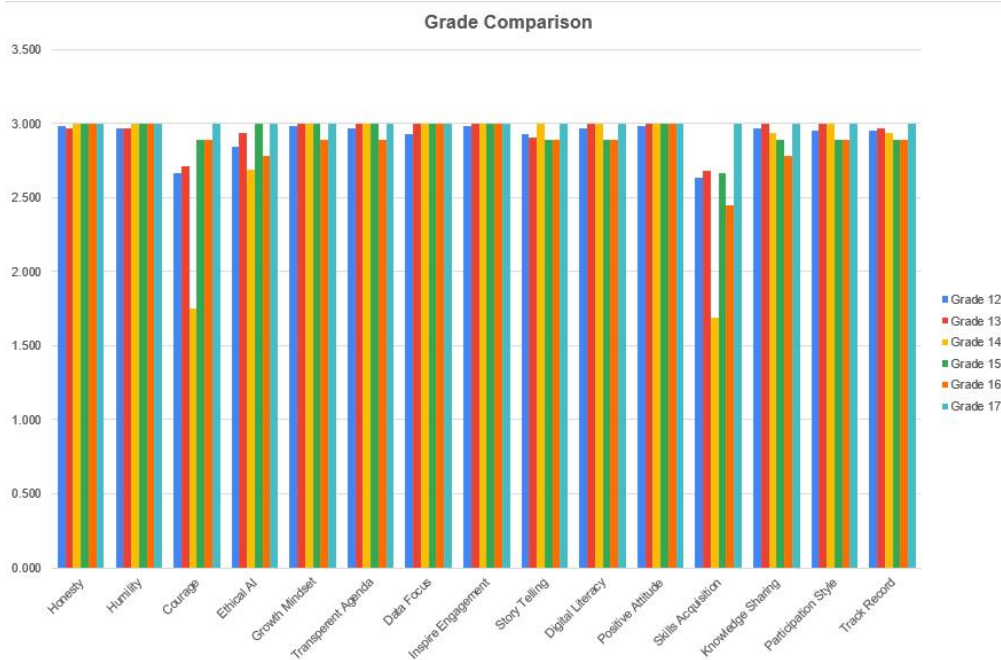


Figure 4 Result Comparison based on Grade

Table 1 Data Categorization

Category	Scale	Std Deviation formula	Range
Low	1	Lowest Score $\leq X < M - 1(SD)$	$3 \leq X < 7$
Moderate	2	$M - 1(SD) \leq X < M + 1(SD)$	$7 \leq X < 11$
High	3	$MH + 1(SD) \leq X \leq \text{Highest Score}$	$11 \leq X \leq 15$

Table 2 Frequency Test Result

Dimension	Low	Moderate	High
Honesty	0	2	122
Humility	0	3	121
Courage	10	30	84
Ethical AI	1	16	107
Growth Mindset	0	2	122
Transperent Agenda	0	3	121
Data Focus	0	4	120
Inspire Engagement	0	1	123
Storytelling	0	9	115
Digital Literacy	0	4	120
Positive Attitude	0	1	123
Skills Acquisition	9	42	73
Knowledge Sharing	0	6	118
Participation Style	0	5	119
Track Record	0	7	117