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Work Motivation and Digital Competence as Drivers of Employee Performance at PT PAL Indonesia

Sugiyanto[1*], Meithiana Indrasari[2]

Master of Management Program, Faculty of Economics and Business, Universitas Dr. Soetomo, Surabaya, Indonesia[1,2]

***Corresponding author:** sugiyanto9283@gmail.com |*

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Abstract

Purpose: This study analyzes the direct effects of work motivation and digital competence on employee performance at PT PAL Indonesia, a state owned maritime defense manufacturer undergoing digital transformation.

Research Methodology: The study used thesis data from a quantitative explanatory cross sectional survey. From a population of 1.410 employees, 70 respondents participated voluntarily through purposive sampling. Data were collected with a five point Likert questionnaire and analyzed with partial least squares structural equation modeling and bootstrapping with 5.000 subsamples. The two direct paths were interpreted within the broader thesis model, which controls for transformational leadership and job satisfaction.

Results: Work motivation did not significantly affect employee performance (β=.078, t=0.403, p=.687, f^2=.004), whereas digital competence had a positive and significant effect (β=.730, t=5.539, p<.001, f^2=1.080). The structural model explained 85.1% of the variance in performance (Q^2=.822).

Conclusions: Willingness to work does not automatically produce output when tasks require technical capability and effective use of digital systems, whereas digital competence is the most immediate driver of work quality, timeliness, and effectiveness.

Limitations: The small voluntary sample, cross sectional design, self reported performance, and incomplete discriminant validity limit generalization and causal inference.

Contributions: The study clarifies the relative importance of capability and motivation in a digitalized defense industry and supports job based digital development combined with sustained motivation.

Keywords: *Defense Industry, Digital Competence, Employee Performance, Partial Least Squares, Work Motivation*

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1. Introduction

Digital transformation has changed how companies in the defense industry design products, control projects, manage documents, coordinate across functions, and account for work results. Digital transformation is not only the adoption of new technologies but a process through which organizations change their value creation, structures, and capabilities (Verhoef, Broekhuizen, Bart, Bhattacharya, Dong, Fabian, & Haenlein, 2021). Building the dynamic capabilities needed for such change is an ongoing process of strategic renewal that depends heavily on the skills and mindset of employees

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(Warner & Wäger, 2019). PT PAL Indonesia operates in a technology intensive environment that involves engineering, production, supply chains, quality control, maintenance, system integration, and supporting functions. This complexity makes human resources decisive, because technology and facilities create value only when employees are willing to work and capable of using systems properly.

Work motivation explains the direction, intensity, and persistence of employee effort (Kanfer, Frese, & Johnson, 2017). Defense projects with long cycles require motivation so that employees maintain discipline, accuracy, commitment to quality, and willingness to solve technical problems. Motivation may originate from pride in producing strategic national products, professional responsibility, learning opportunities, recognition, rewards, employment security, and career prospects. Previous studies often report a positive relationship between motivation and performance, either directly or through engagement and job satisfaction (Riyanto, Endri, & Herlisha, 2021). Other findings, however, indicate that the contribution of motivation depends on job characteristics and other organizational variables (Sirfefa, Sayidah, & Ady, 2024). Self determination theory also suggests that the effect of motivation depends on its quality, because autonomous motivation predicts performance more strongly than controlled motivation (Van, Howard, Leroy, & Gagné, 2021).

Digital competence refers to the ability to access, understand, use, create, communicate, and share information through technology effectively, securely, and responsibly (Perifanou & Economides, 2019). A review of the workplace literature shows that digital competence includes information processing, communication, content creation, safety, and problem solving with digital tools (Oberländer, Beinicke, & Bipp, 2020). At PT PAL Indonesia, such competence is associated with applications, data management, engineering documentation, progress reporting, digital collaboration, information security, and integrated systems. Digitally competent employees can obtain accurate information, reduce errors, accelerate coordination, and maintain the traceability of work. Prior studies connect digital competence with innovative behavior and stronger performance (Carvalho, Poleto, Ramos, Rodrigues, Carvalho, & Nepomuceno, 2023).

The research gap arises because work motivation and digital competence may not contribute equally to performance. Motivation concerns the willingness to exert effort, whereas digital competence concerns the ability to execute work through systems and information. In a maritime defense industry characterized by technical standards, coordination across units, and requirements for data security, digital capability may be more proximal to work outcomes than psychological drive alone. Research on the digital workplace shows that digital tools improve organizational performance when employees and leaders have the capability to use them (Chatterjee, Chaudhuri, & Vrontis, 2023), and research on technology adoption in manufacturing emphasizes that facilitating conditions and skills are central to effective use (Chatterjee, Rana, Dwivedi, & Baabdullah, 2021; Venkatesh, Thong, & Xu, 2016).

This study examines the effects of work motivation and digital competence on employee performance at PT PAL Indonesia. Its novelty lies in comparing the strength of these two factors in a state owned defense manufacturer undergoing digital transformation, within a model that also controls for transformational leadership and job satisfaction. The findings are expected to contribute to the literature on digital human resource management and to provide practical guidance for companies that must combine motivation and capability in a digital work environment.

2. Literature Review and Hypothesis/es Development

2.1 Employee Performance in a Digital Work Environment

Employee performance refers to the quantity, quality, timeliness, effectiveness, independence, and commitment that employees demonstrate in completing their work. In a digital work environment, performance increasingly depends on how well employees use digital tools to access information, coordinate tasks, and document results. Digital human resource management describes the use of digital technologies to support human resource processes and the work of employees, and it changes

the competencies that organizations expect from their workforce (Bondarouk & Brewster, 2016). Research on workplace digital transformation shows that performance outcomes depend on factors at individual, team, and organizational levels, including skills, attitudes toward technology, leadership, and culture (Trenerry, Chng, Wang, Suhaila, Lim, Lu, & Oh, 2021). Talent management research also emphasizes that organizations gain competitive advantage when they identify, develop, and deploy employees whose capabilities match strategic requirements (Collings, Mellahi, & Cascio, 2019).

From a resource based perspective, employees' knowledge and skills are valuable resources that create advantage when they are rare, difficult to imitate, and effectively organized (Barney, Ketchen, & Wright, 2021). The resource based view holds that sustained performance does not come from resources that any competitor can buy. It comes from resources that are embedded in the history, routines, and social relationships of the organization. Human capital fits this description because the experience, judgment, and tacit knowledge of employees develop over time and are closely tied to the specific processes of the firm. In a defense manufacturer, capabilities related to engineering systems, documentation, and secure data management are firm specific resources that cannot be easily acquired from the external labor market. Employees at PT PAL Indonesia must understand technical standards for shipbuilding, procedures for quality assurance, rules for handling classified information, and the integrated systems that connect design, production, and project control. These capabilities are accumulated through years of participation in strategic projects and cannot be quickly transferred to new employees or copied by other organizations.

Talent management research supports this view by showing that organizations perform better when they identify pivotal positions and ensure that employees in those positions have capabilities that match strategic requirements (Collings et al., 2019). Digital transformation adds a further dimension to this argument. Building dynamic capabilities for digital transformation requires organizations to sense technological opportunities, seize them through new processes, and continuously reconfigure their resources, and each of these activities depends on employees who can use digital tools competently (Warner & Wäger, 2019). Digital competence is therefore not a generic skill that adds value automatically. It becomes a strategic resource when it is combined with knowledge of the specific work processes, systems, and standards of the organization (Oberländer, Beinicke, & Bipp, 2020; Chatterjee, Chaudhuri, & Vrontis, 2023). Digital human resource management also shows that technology changes the competencies organizations expect from their workforce, so the value of human resources increasingly depends on the ability of employees to work effectively through digital systems (Strohmeier, 2020).

2.2 Work Motivation

Work motivation is a set of energetic forces that originate within and beyond individuals to initiate work related behavior and determine its form, direction, intensity, and duration. A century of research on work motivation shows that motivation influences performance through goal choice, effort, and persistence, but that its effects depend on ability, task characteristics, and the work context (Kanfer, Frese, & Johnson, 2017). Need based theories argue that the fulfillment of physiological, security, affiliation, esteem, and self actualization needs increases willingness to achieve work targets. Self determination theory distinguishes autonomous motivation, which arises from interest and personal values, from controlled motivation, which arises from external pressure or rewards, and shows that autonomous motivation is more strongly related to performance, wellbeing, and engagement (Deci, Olafsen, & Ryan, 2017). A meta analysis of self determination theory further confirms that different types of motivation have different relationships with performance and that intrinsic and identified regulation are the most beneficial forms (Van, Howard, Leroy, & Gagné, 2021).

Empirical studies in Indonesia report mixed findings. Some studies found that work motivation improves performance directly or through employee engagement (Riyanto, Endri, & Herlisha, 2021). Others found that the effect of motivation is weaker in models that include leadership, culture, or job satisfaction, especially in the manufacturing industry during the digital era (Ibrahim, Karollah, Juned, & Yunus, 2022; Sirfefa, Sayidah, & Ady, 2024). These findings suggest that motivation may operate

through other mechanisms rather than appearing as a strong direct effect when capability variables are included.

2.3 Digital Competence

Digital competence integrates knowledge, skills, and attitudes for using technology and information. The digital competence actions framework describes it as the ability to access, understand, use, create, communicate, and share information through technology (Perifanou & Economides, 2019). Digital skills are closely related to broader skills of the twenty first century, such as information management, communication, collaboration, creativity, critical thinking, and problem solving (van Laar, van Deursen, van Dijk, & de Haan, 2017). In organizations, digital literacy can be understood as an organizational affordance that enables digital transformation when employees have the conditions to use and develop their skills (Cetindamar & Abedin, 2021). Inequalities in digital skills persist even when physical access to technology is available, which means that organizations must actively develop the skills of their employees (van Deursen & van Dijk, 2019).

Digital competence is also connected to employees' responses to advanced technology. Awareness of technology can stimulate career competency development, although it may also increase job burnout when employees feel threatened by technological change (Kong, Yuan, Baruch, Bu, Jiang, & Wang, 2021). Studies of public university employees show that digital competence is predicted by training and organizational support and that it improves innovative work behavior (Carvalho, Poleto, Ramos, Rodrigues, Carvalho, & Nepomuceno, 2023). Leaders play an important role in developing digital competence, because leadership in a digitalized world requires the ability to guide employees through technological change (Cortellazzo, Bruni, & Zampieri, 2019; Henderikx, & Stoffers, 2022).

2.4 Work Motivation and Employee Performance

Work motivation encourages employees to direct energy and sustain effort toward organizational goals. The fulfillment of security, affiliation, esteem, and self actualization needs should increase willingness to achieve work targets. Job demands resources theory also suggests that motivational processes driven by job resources lead to engagement and better performance (Bakker & Demerouti, 2017, Bakker et al., 2023). In a defense manufacturer, motivated employees are expected to maintain discipline and commitment to quality during long and complex projects. Accordingly, H1 states that work motivation has a positive effect on employee performance.

Empirical evidence provides further support for this expectation. A century of research on work motivation shows that motivation shapes performance by influencing which goals employees choose, how much effort they invest, and how long they persist when tasks become difficult (Kanfer, Frese, & Johnson, 2017). Self determination theory adds that motivation rooted in interest, personal values, and a sense of meaning in the work is particularly beneficial, because it sustains effort without constant external pressure and is consistently related to higher performance and engagement (Deci, Olafsen, & Ryan, 2017). A meta analysis of self determination theory confirms that intrinsic motivation and identified regulation have the strongest positive relationships with performance, whereas motivation driven mainly by external pressure is less effective (Van, Howard, Leroy, & Gagné, 2021). In the Indonesian context, work motivation has been found to improve employee performance both directly and through employee engagement (Riyanto, Endri, & Herlisha, 2021), and studies in the manufacturing industry during the digital era show that motivation remains an important driver of performance among younger employees (Ibrahim, Karollah, Juned, & Yunus, 2022). For employees of PT PAL Indonesia, pride in building strategic national defense products, opportunities to learn from complex engineering projects, and recognition for contributions to national security can act as sources of autonomous motivation. These motivational forces are expected to encourage employees to work carefully, meet project deadlines, and maintain the high quality standards that defense products require. Motivation may also strengthen performance indirectly by increasing job satisfaction (Sirfefa, Sayidah, & Ady, 2024), but the main expectation of this study is that motivated employees will directly show higher quantity, quality, and timeliness of work.

2.5 Digital Competence and Employee Performance

Digital competence integrates the knowledge, skills, and attitudes required to use technology and information at work. Higher competence should enable employees to complete tasks that depend on applications, data, digital communication, and documentation more quickly and accurately. Research on the digital workplace shows that digital capability improves organizational performance (Chatterjee et al., 2023), and studies of digital competence show that it supports innovative work behavior and performance (Carvalho et al., 2023, Oberländer et al., 2020). Accordingly, H2 states that digital competence has a positive effect on employee performance.

2.6 Transformational Leadership and Job Satisfaction as Control Variables

The thesis model from which this article is derived also includes transformational leadership and job satisfaction. Transformational leadership improves performance through several mechanisms, including motivation, identification, trust, and the development of follower capabilities (Ng, 2017). Research on transformational leadership also shows that its effects on performance depend on how followers are actually transformed, which means that leadership may shape both motivation and competence (Siangchokyoo et al., 2020). In digital work environments, leaders who understand technology can encourage employees to develop digital skills and adopt new systems (Cortellazzo et al., 2019, Henderikx & Stoffers, 2022). Job satisfaction reflects employees' positive evaluation of their work and is often positioned as a mechanism through which motivation affects performance (Riyanto et al., 2021, Sirfefa et al., 2024). Including these two variables as controls is important, because the unique effects of motivation and digital competence can be overestimated when leadership and satisfaction are omitted from the model. At the same time, the presence of these variables means that the coefficients reported in this article represent the unique contributions of motivation and digital competence after the shared variance with leadership and satisfaction has been taken into account.

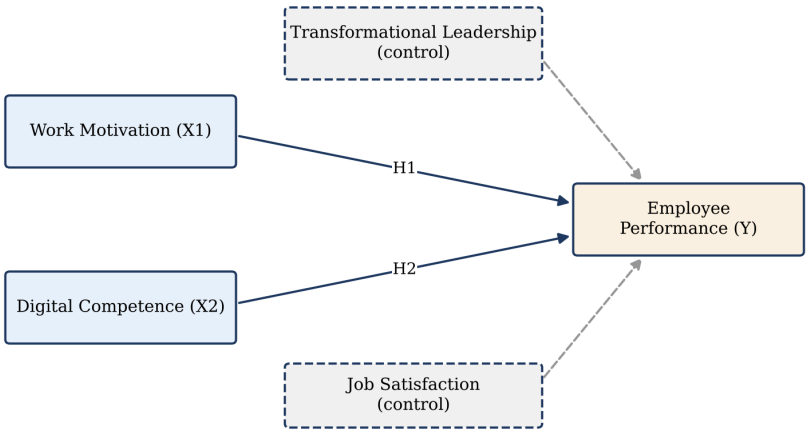


Figure 1. Research model of the effects of work motivation and digital competence on employee performance

Figure 1 shows the research model of this article, in which work motivation (X_1) and digital competence (X_2) are positioned on the left as the predictors examined, and employee performance (Y) is positioned on the right as the outcome. The solid arrows represent H1, the direct effect of work motivation on employee performance, and H2, the direct effect of digital competence on employee performance. The boxes with dashed borders represent transformational leadership and job satisfaction, which were included in the broader thesis model and therefore act as control variables when the two direct paths are interpreted. The dashed arrows indicate that these control variables also predict employee performance in the thesis model. The figure was prepared by the authors in 2026 based on the thesis model.

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3. Research Methodology

3.1 Research Design and Sample

The study used a quantitative explanatory design and a cross sectional survey. The unit of analysis was the individual employee of PT PAL Indonesia in Surabaya. The population consisted of 1,410 employees, while the actual sample included 70 respondents who participated voluntarily through purposive sampling. Participants were active employees familiar with the work processes of the company. This sample is more suitable for detecting medium to large effects in partial least squares structural equation modeling (PLS SEM) than for producing population estimates with a margin of error of 5% (Kock & Hadaya, 2018).

3.2 Measurement

Data were collected through a five point Likert questionnaire. Work motivation was measured through physiological, security, affiliation, esteem, and self actualization needs. Digital competence covered the ability to access, use, create, communicate, and share digital resources (Perifanou & Economides, 2019). Employee performance was assessed through quantity, quality, timeliness, effectiveness, independence, commitment, and related work outcomes. Each construct in the thesis instrument was operationalized with 20 reflective statements.

3.3 Data Analysis

The analysis was performed with SmartPLS 4. PLS SEM was chosen because it is suitable for complex models with several latent constructs and relatively small samples, and because it emphasizes prediction (Hair et al., 2019, Sarstedt et al., 2022). The measurement model was assessed using outer loadings, Cronbach's alpha, composite reliability, average variance extracted (AVE), the Fornell and Larcker criterion, and the Heterotrait Monotrait Ratio (HTMT) (Hair et al., 2019, Henseler et al., 2015). The structural model was evaluated with variance inflation factors, R^2, Q^2, f^2, and bootstrapping with 5.000 subsamples, and predictive relevance was interpreted following current guidelines for predictive assessment in PLS SEM (Shmueli et al., 2019). Relationships were considered significant at $p<.05$.

The present article did not reestimate a model with only two predictors because the raw dataset was not separated from the thesis. It focuses on the paths from work motivation to performance and from digital competence to performance in the thesis model, which also controls for transformational leadership and job satisfaction. Transformational leadership is known to influence performance through motivational and affective mechanisms (Ng, 2017, Siangchokyoo et al., 2020), so including it as a control allows the unique contributions of motivation and digital competence to be estimated more precisely.

4. Results and Discussions

4.1 Respondent Profile

Table 1. Profile of respondents

Characteristic	Category	Frequency	Percentage
Gender	Male	57	81.43
Education	Bachelor degree	40	57.14
Employment status	Permanent employee	47	67.14
Tenure	Five years or less	30	42.86

Table 1 shows the main characteristics of the 70 respondents. Most respondents were male (57 respondents, 81.43%), more than half held a bachelor's degree (40 respondents, 57.14%), and about two thirds were permanent employees (47 respondents, 67.14%). The largest tenure group consisted of

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employees who had worked for five years or less (30 respondents, 42.86%). The frequencies were calculated from the percentages reported in the thesis, and only the largest category of each characteristic is shown. Respondents represented the Office of the Board, Surface Ships, Information Technology, Legal, Maintenance and Repair, Supply Chain, General Engineering, Quality Assurance, Human Resources, and other units, so the sample provided perceptions from both technical and supporting functions. The table was compiled by the authors from primary data processed in 2026.

4.2 Descriptive Statistics and Measurement Model

Table 2. Descriptive statistics and measurement model quality

Construct	Mean	SD	Cronbach alpha	CR	AVE
Work motivation	4.254	.783	.980	.982	.730
Digital competence	4.350	.676	.985	.986	.783
Employee performance	4.430	.760	.994	.994	.894

Table 2 shows that the mean scores of work motivation (M=4.254, SD=.783), digital competence (M=4.350, SD=.676), and employee performance (M=4.430, SD=.760) were all in the very high category, which indicates that respondents perceived strong work motivation, digital capability, and performance. Cronbach's alpha values ranged from .980 to .994, composite reliability values ranged from .982 to .994, and AVE values ranged from .730 to .894. All minimum outer loadings exceeded .75, so reliability and convergent validity met the criteria. However, reliability values above .95 indicate possible similarity or redundancy among items (Hair et al., 2019), and the uniformly high mean scores may restrict response variation, which should be considered when interpreting the partial relationships among the variables. The table was compiled by the authors from primary data processed in 2026.

The thesis also reported an HTMT value above .90 between digital competence and employee performance, which indicates that discriminant validity between these two constructs was not fully established (Henseler et al., 2015). This issue is discussed further in the interpretation of the results.

4.3 Structural Model

The thesis structural model explained 85.1% of the variance in employee performance, with an adjusted R^2 of .842. The Q^2 value of .822 for performance indicated good predictive relevance. These values came from the complete model containing transformational leadership, work motivation, digital competence, and job satisfaction, so the R^2 should not be interpreted as the contribution of only two predictors. This article compares the direct paths from motivation and digital competence after the other variables in the thesis model are controlled.

Table 3. Direct effects on employee performance

Path	β	SD	t	p	95% CI	f^2	Decision
Work motivation to performance	.078	.194	0.403	.687	−.313 to .446	.004	Not supported
Digital competence to performance	.730	.132	5.539	< .001	.378 to .894	1.080	Supported

Table 3 shows the direct effects of work motivation and digital competence on employee performance from the complete PLS SEM thesis model. The path from work motivation to performance was positive but very small and nonsignificant (β=.078, SD=.194, t=0.403, p=.687), its 95% confidence interval from −.313 to .446 crossed zero, and its effect size was negligible (f^2=.004). The path from digital competence to performance was positive and significant (β=.730, SD = .132, t=5.539, p<.001), its 95% confidence interval from .378 to .894 was entirely above zero, and its effect size was large (f^2=1.080). H_1 was therefore not supported, and H_2 was supported. The table was compiled by the authors from primary data processed in 2026, with a significance threshold of p<.05.

4.4 Hypothesis Testing

H_1 was not supported. The coefficient from work motivation to performance was positive but very small and nonsignificant (β=.078, p=.687), and its confidence interval crossed zero. The effect size of .004 indicates that motivation made a negligible unique contribution to performance after digital competence, transformational leadership, and job satisfaction were controlled.

H2 was supported. Digital competence had a positive and significant effect on performance (β=.730, p<.001). The confidence interval was entirely above zero, and the effect size of 1.080 was large. Digital competence was therefore the dominant predictor of performance in the model. Employees capable of using applications, information, data, digital communication, and security procedures were better positioned to achieve the expected quantity, quality, timeliness, effectiveness, and independence of work.

4.5 Work Motivation Did Not Significantly Affect Performance

The nonsignificant direct effect does not imply that motivation is unimportant. In the thesis model, motivation strongly predicted job satisfaction but did not make a sufficient unique contribution to performance. This distinction suggests that willingness to work and positive feelings about work do not automatically become technical output. Work in the defense industry depends on standards, tools, procedures, coordination, specialized competence, and access to information. Employees may be highly motivated, but their results can remain constrained when digital capability, system support, or dependencies between units are inadequate.

This result differs from Riyanto et al. (2021), who reported a positive relationship between motivation and performance. The difference may stem from the sector, the instruments, the characteristics of respondents, and the variables included in the model. In this study, digital competence had a very strong relationship with performance and may have captured variance that other models attribute to motivation. The result is also consistent with the view that motivation can operate through engagement, satisfaction, or other behaviors rather than appearing as a direct effect (Sirfefa et al., 2024).

Motivation theory helps explain this pattern. Kanfer et al. (2017) emphasize that motivation interacts with ability, so effort produces performance only when employees have the capability to perform the task. Self determination theory also shows that the type of motivation matters, because motivation based on external rewards is less strongly related to performance than motivation based on interest and personal values (Deci et al., 2017, Van den Broeck et al., 2021). The measurement of motivation in this study was based on need fulfillment, which may capture general satisfaction of needs rather than the autonomous motivation that is most closely linked to performance. In addition, job demands resources theory suggests that motivation affects performance mainly through engagement, which was not included in the model (Bakker et al., 2023).

4.6 Digital Competence as the Dominant Driver of Performance

The large effect of digital competence can be explained by its proximity to work processes. Project control, engineering documentation, progress reporting, supply chain coordination, quality inspection, knowledge storage, and data security increasingly depend on technology. Digital competence enables employees to obtain accurate information, use applications appropriately, manage data, prepare traceable documents, collaborate across units, and respond quickly to change. These capabilities directly influence the accuracy, speed, efficiency, and quality of output.

The finding supports Carvalho et al. (2023), who identify digital competence as a determinant of innovative behavior and performance. It is also consistent with research showing that the digital workplace improves organizational performance (Chatterjee et al., 2023) and that digital skills are closely linked to the information, communication, and problem solving skills required in modern work (van Laar, van Deursen, van Dijk, & de Haan, 2017). From a resource based perspective, digital

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competence that is embedded in specific engineering and documentation processes is a valuable and difficult to imitate resource (Barney et al., 2021).

Interpretation should nevertheless remain cautious because the thesis reported an HTMT value above .90 between digital competence and performance. The proximity of indicators may mean that respondents found it difficult to distinguish their ability to use technology from their assessment of work effectiveness. Extremely high reliability also indicates possible item redundancy (Hair et al., 2019). The strong relationship should therefore not be treated as definitive causal evidence without considering measurement quality and the cross sectional design.

4.7 The Interplay Between Motivation and Capability

The contrasting results for work motivation and digital competence highlight the classic distinction between the will to perform and the ability to perform. Motivation determines whether employees choose to invest effort, while capability determines whether that effort can be converted into high quality output (Kanfer et al., 2017). In environments where tasks are routine and well defined, motivation may be sufficient to increase output. In a defense manufacturer where work depends on integrated digital systems, engineering standards, and secure information flows, effort without adequate capability may produce little improvement or may even lead to errors and rework. This explains why digital competence emerged as the dominant predictor in this study.

The interplay between motivation and capability also has implications for how organizations design digital transformation programs. Training that develops digital skills is likely to be more effective when employees are autonomously motivated to learn, because autonomous motivation supports persistence and deeper learning (Deci et al., 2017). Conversely, motivation programs are more likely to improve performance when employees already possess the capabilities required to use digital tools. Digital human resource management can support this integration by combining competency mapping, digital learning platforms, and performance analytics (Strohmeier, 2020). Organizations that build dynamic capabilities for digital transformation treat employee skills, motivation, and systems as interdependent elements of a continuous renewal process (Warner & Wäger, 2019). For PT PAL Indonesia, this means that digital competence development and motivation management should be designed as complementary rather than competing priorities.

4.8 Managerial Implications

PT PAL Indonesia should make digital competence part of the competency architecture for every job. Required capabilities should be mapped separately for engineering, production, quality assurance, supply chain, maintenance, project management, human resources, finance, legal, and supporting functions. Development programs may include work applications, Integrated Management 4.0, data literacy, digital documentation, collaboration, information security, analytics, and relevant certification. Training should be followed by guided practice, project assignments, mentoring, assessment, and evaluation of impact. Evidence from training research shows that programs are most effective when they are based on needs analysis, include practice and feedback, and are delivered over several sessions (Lacerenza et al., 2017).

The success of digital development should be measured through operational indicators, such as fewer input errors, greater system utilization, faster document retrieval, more timely reports, stronger decision traceability, better coordination, and reduced rework. Performance management systems that provide clear goals and meaningful feedback can help connect digital development with performance (DeNisi & Murphy, 2017). Motivation should still be maintained through fair rewards, recognition of innovation, career pathways, coaching, learning opportunities, and involvement in strategic projects. The company must combine willingness to work with the capability to work digitally, because neither dimension alone guarantees sustainable performance.

5. Conclusions

Work motivation did not have a significant direct effect on employee performance at PT PAL Indonesia, whereas digital competence had a positive, significant, and large effect. Digital capability is therefore the most proximal driver of performance in a work environment integrated with technology. The result does not demonstrate that motivation is irrelevant. Motivation remains important for attitudes and work experience, but its contribution to output may depend on employee capability, systems, and organizational conditions.

Theoretically, the study shows that in digitally intensive work, capability factors such as digital competence can be more decisive for performance than general motivation, which supports the view that motivation and ability interact in producing performance. Practically, PT PAL Indonesia should prioritize job based digital development while maintaining motivation through recognition, career development, and participation in strategic projects.

The findings are limited by a voluntary sample of 70 respondents, a cross sectional design, self reported performance, extremely high construct reliability, and incomplete discriminant validity. In addition, the coefficients came from the broader thesis model rather than from a reestimated model with only two predictors. Future studies should use larger stratified samples, objective performance data, more concise instruments, longitudinal designs, and a dedicated model linking motivation, digital competence, and performance. Digital self efficacy, engagement, innovation climate, system support, and job characteristics may also be examined as mediators or moderators.

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Author Contributions

S contributed to the conceptualization of the study, data collection, data analysis, and the writing of the original draft. MI contributed to the supervision of the study, the refinement of the research model, and the review and editing of the manuscript. Both authors read and approved the final manuscript.

Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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