A Leadership Capability Framework for Supporting Strategic Transformation and Employee Engagement: A Case Study in an Aerostructure Strategic Business Unit

Dhilal Ahmad Sobarudin[1], Aurik Gustomo[2]
School of Business and Management, Institut Teknologi Bandung, Indonesia[1,2]
Email: idsobarudin@gmail.com[1], aurik@sbm-itb.ac.id[2]

Informasi	Abstract
	Amid its ongoing strategic transformation, the Aerostructure Strategic Business Unit (SBU) of XYZ Company, a pseudonym for an Indonesian aerospace company, faces the challenge of aligning leadership practices with its transformation goals and enhancing employee engagement. While corporate-level assessments indicated leadership and engagement challenges across the organization, no systematic analysis had previously been conducted at the SBU level, nor had a leadership framework been specifically developed to address these needs. This study developed a Strategic Leadership Capability Framework (SLCF-Aero), synthesized from established leadership capability literature and tailored to the dynamic leadership practices emerging during the SBU's transformation and employee engagement efforts. The framework's relevance and impact were explored through empirical analysis of employee perceptions and engagement outcomes, using Partial Least Squares (PLS-SEM) on survey data from 42 employees. The findings reveal varied employee perceptions of leadership practices across the SLCF-Aero domains. Notably, only the People-First Orientation exhibited a statistically significant positive relationship with employee engagement. Nevertheless, the overall framework provides a relevant foundation for guiding leadership practice development within the SBU and supporting its transformation and engagement objectives. Moreover, it highlights the potential for such frameworks to inform leadership learning and the evolving practice of leadership within organizational change contexts. ***Keywords:*** *Leadership capability, Leadership framework, Strategic transformation, Employee engagement*

A.   INTRODUCTION

The global aerospace and advanced manufacturing sectors are undergoing significant transformation, driven by rapid technological advancements and evolving market demands. Organizations in this space must simultaneously pursue agility, innovation, and operational excellence to remain competitive (Dan Dumbacher, 2024; Gasman, 2019). In this context, leadership capability has emerged as a critical enabler of organizational transformation and employee engagement—two factors essential for sustaining performance in increasingly complex and dynamic environments (Ho et al., 2025; Nguyen, 2020). The importance of leadership capability extends beyond individual leadership attributes; it encompasses how leadership is enacted, practiced, and experienced collectively across the organization.

Contemporary leadership research emphasizes the need for integrative frameworks that consider traits, character strengths, competencies, and behaviors—embedded within leadership practices and systems—to drive strategic outcomes (Day et al., 2014; DeRue, 2011; Ghasemy et al., 2016; Sosik et al., 2020; Zaccaro, 2007). Such frameworks are particularly relevant in transformation contexts, where leadership must not only inspire change but also enable new leadership practices to emerge and evolve in alignment with strategic imperatives and in fostering an engaged workforce.

Despite growing recognition of this need, many leadership frameworks remain either too generic or insufficiently tailored to specific organizational contexts (Brauckmann et al., 2023; Drysdale et al., 2021). In the aerospace manufacturing sector, and particularly within Strategic Business Units (SBUs) undergoing transformation, there is a lack of context-sensitive leadership capability frameworks designed to support both transformation goals and employee engagement. This gap is evident within the Aerostructure Strategic Business Unit (SBU) of XYZ Company, pseudonym for an Indonesian aerospace company. Corporate-level Human Capital assessments conducted in 2024 highlighted persistent challenges in leadership capability and employee engagement. However, no systematic unit-level analysis had been conducted within the Aerostructure SBU, nor had a leadership framework been developed specifically to address the unit's transformation needs and engagement objectives.

Addressing this gap, the present study aims to: (1) develop and explore a context-sensitive Strategic Leadership Capability Framework for Aero (SLCF-Aero), aligned with the SBU's strategic imperatives and employee engagement needs; (2) assess employee perceptions of leadership practices within the SBU based on the SLCF-Aero framework; (3) examine the relationship between perceived leadership practices and employee engagement.

By integrating leadership capability development with employee engagement outcomes, and by positioning leadership frameworks as both practical interventions and catalysts for evolving leadership practices, this study aligns with emerging calls for more contextually grounded and practice-oriented approaches to leadership development (Bourne & Ranieri, 2025; Sosik et al., 2020). The insights generated can inform leadership education and learning within organizations and management education programs, providing a valuable reference for those seeking to advance leadership and organizational learning in dynamic industry settings.

LITERATURE REVIEW

Leadership and Organizational Transformation

Leadership is increasingly recognized as the pivotal force driving organizational transformation, especially in high-complexity sectors like aerospace manufacturing where rapid technological shifts and intricate operational demands prevail (Nguyen, 2020; Rowold & Rohmann, 2009). By embedding core values and guiding principles into daily routines, leadership operationalizes strategic intent—framing change narratives, modeling desired behaviors, and sustaining momentum through clear communication and coherent planning (Shu, 2022). This catalytic role extends beyond episodic interventions: leadership dynamically orchestrates adaptive, administrative, and enabling functions (Uhl-Bien & Arena, 2017), alternates between exploratory and exploitative modes to balance innovation with stability (Rosing et al., 2011), and cultivates distributed agency via shared-leadership networks that enhance responsiveness and ownership (Carson et al., 2007).

Effective transformation further requires leadership that tailors strategies in real time—diagnosing contextual needs, mobilizing diverse stakeholder groups, and preemptively addressing resistance driven by cognitive and emotional responses (Oreg & Berson, 2011). Leadership builds organizational agility, fosters innovation, and secures employee engagement throughout change initiatives (Ho et al., 2025; Nguyen, 2020; Sacavém et al., 2025). Ultimately, leadership effectiveness in transformation is measured not solely by individual competencies but by the consistent enactment of structures, practices, and feedback loops that embed continuous learning and adaptability into the organizational fabric (Doz & Kosonen, 2010; Fairhurst & Grant, 2010).

Leadership Capability as an Integrative Construct

Contemporary leadership research underscores that leadership capability must be understood as an integrative construct—one that transcends isolated attributes or episodic behaviors by weaving together traits, character strengths, competencies, and adaptive

practices within supportive organizational systems (Day et al., 2014; DeRue, 2011; Sosik et al., 2020; Zaccaro, 2007). Rather than privileging inherent qualities or discrete leadership styles alone, these frameworks insist that sustainable effectiveness arises from the consistent enactment of interrelated practices—such as sense-making routines, distributed decision-making, and ambidextrous problem-solving—that precisely align with an organization's strategic needs (Ghasemy et al., 2016)

Empirical studies illustrate how integrative models combine cognitive skills, emotional intelligence, and behavioral routines to drive both individual and collective outcomes: in public education, school leaders blend instructional expertise, relational transparency, and policy acumen to elevate student achievement (Fernandez, 2005), while in healthcare settings, clinical teams leverage credibility, team-centric communication, and resilience under pressure to improve patient outcomes (Husebø & Olsen, 2016). Sector-specific curricula—like the rail industry's focus on safety leadership and continuous improvement (Piip, 2015). By viewing leadership capability as a system of deeply interconnected practices enabled by culture and structure, integrative frameworks provide a robust foundation for designing development initiatives that cultivate both individual potential and enduring systemic change.

Employee Engagement

Employee engagement is defined as a positive, fulfilling, work-related state of mind characterized by vigor, dedication, and absorption (Schaufeli et al., 2002). Engaged employees demonstrate higher adaptability, innovation, and resilience—key attributes for organizations navigating strategic transformation (Bakker & Demerouti, 2008). The Utrecht Work Engagement Scale (UWES) operationalizes engagement through three dimensions: vigor, dedication, and absorption (Bakker & Demerouti, 2008; Schaufeli et al., 2002). In aerospace manufacturing, where operational complexity and innovation cycles are high, fostering engagement is a strategic priority (Nguyen, 2020).

Leadership plays a critical role in shaping the conditions for engagement, through leadership practices that foster trust, empowerment, and learning (Day et al., 2014; Sosik et al., 2020). Therefore, empirically examining the relationship between perceived leadership practices and employee engagement provides actionable insights to support both leadership development and organizational performance during strategic transformation.

Strategic Leadership Capability Framework for SBU Aerostructure (SLCF-Aero)

A customized leadership framework aligns change initiatives with an organization's precise internal context and strategic goals, ensuring that the model directly addresses industry-specific variables (Kotnour, 2011). For example, Hossain et al. (2025) developed an AI-driven digital leadership capability framework specifically for firms in the technology and financial services sectors deploying machine-learning platforms; this bespoke model emphasizes skills in data literacy, algorithmic governance, and cross-functional collaboration unique to AI environments. In the Australian rail industry, (Piip, 2015) constructed a leadership capability framework attuned to local regulatory constraints, unionized workforce dynamics, and infrastructure-scale project management, thereby enabling executives to navigate safety compliance and stakeholder engagement more effectively. Likewise, Hubley et al. (2024) designed the SBNH Healthcare Leadership Capabilities Framework within a large hospital network, translating core values—such as patient-centricity and ethical stewardship—into actionable competencies like clinical decision-making under uncertainty and interprofessional communication.

Furthermore, Doz & Kosonen's (2010) strategic agility framework, validated in multinational manufacturing firms, underlines meta-capabilities—strategic sensitivity to market signals and resource fluidity across business units—that are essential for rapid pivoting. Co-creating frameworks with internal stakeholders fosters deep engagement and ownership (Galbraith, 2016), while Weiss's (2006) integrated-solution approach ensures sustainable capability building. Taken together, these industry-specific examples demonstrate that constructing a context-sensitive or tailored leadership framework is not only feasible but foundational for effective transformation in complex environments, including the aerostructure industry on which this paper focuses, thereby serving as robust supporting literature.

Building on the previous literature, this study develops the Strategic Leadership Capability Framework for the Aerostructure SBU (SLCF-Aero). The framework consists of four domains of leadership capabilities and is specifically designed to support the strategic transformation agenda and employee engagement needs of XYZ Company's Aerostructure SBU. Each domain encompasses a curated set of leadership capabilities, selected through triangulation of leadership capability literature and contextual validation based on the current and future demands of the SBU. The four domains of SLCF-Aero and their alignment with the SBU's strategic imperatives are illustrated in Figure 1.
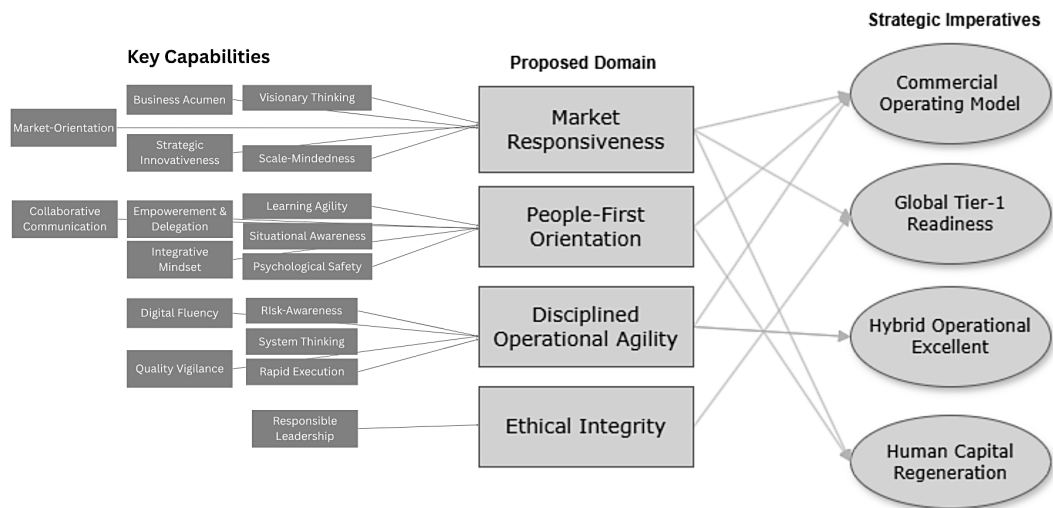
Figure 1. Alignment between Leadership Capability Domains and the SBU Imperatives

Furthermore, Table 1 summarizes the SLCF-Aero framework, presenting each domain, its key leadership capabilities, definitions, and the specific relevance of these capabilities to the organizational transformation objectives of the SBU. This integrative framework conceptualizes SLCF-Aero as a higher-order construct formed by the four leadership domains, which are hypothesized to influence employee engagement. The framework is positioned not merely as a static set of competencies, but as a dynamic scaffold enabling leadership practices that support the SBU's ongoing transformation and foster employee engagement.

Table 1 SLCF-Aero: Domains, Key Leadership Capabilities, Definition and Source

Domain	Key Capabilities	Definition	Source
Market Responsiveness	Visionary Thinking	Ability to develop and communicate a compelling strategic vision.	(Furtner et al., 2025)
	Market Orientation	Focus on understanding customer needs and market dynamics.	(Rajagopal & Davila, 2020)
	Business Acumen	Understanding of key business and financial drivers.	(Holtström, 2022)
	Strategic Innovativeness	Ability to develop innovative strategies and business models.	(Strauss, 2012)
	Scale-Mindedness	Ability to think and plan for scalable and sustainable growth.	(Guzmán et al., 2020; Țîțu & Pop, 2019)
Disciplined	Quality Vigilance	Consistent attention to quality	(Rajamani, 2021)

		standards and continuous improvement.	
Operational Agility	Digital Fluency	Ability to leverage digital platforms, data, and tools for operational efficiency.	(Cao et al., 2024; McCarthy et al., 2022)
	Rapid Execution	Ability to drive speed and efficiency in execution.	(Mellor et al., 2015)
	Risk-Aware Leadership	Ability to proactively identify and manage risks.	(Yilmaz, 2020; Rajamani, 2021)
	Systems Thinking	Ability to understand complex systems and their interdependencies.	(Schiuma et al., 2022)
People-First Orientation	Psychological Safety	Fostering an environment where employees feel safe to express ideas and concerns.	(Heo & Smuttrasen, 2025; Liu & Keller, 2021)
	Learning Agility	Willingness and ability to learn quickly and adapt to change.	(Ohlsson, 2023)
	Empowerment & Delegation	Promoting delegation of authority and empowerment of team members.	(Bailey et al., 2025)
	Situational Awareness	Ability to accurately read and respond to dynamic contexts.	(Boyatzis & Dhar, 2023; Kelloway & Gilbert, 2017)
	Collaborative Communication	Fostering open, transparent, and constructive communication.	(Morandini et al., 2024)
Ethical Integrity	Responsible Leadership	Demonstrating integrity, transparency, fairness, and accountability.	(Sargam & Pandey, 2023)

This integrative framework conceptualizes SLCF-Aero as a higher-order construct formed by the four leadership domains, which are hypothesized to influence employee engagement.

Conceptual Model and Hypothesis

Based on the theoretical foundations and empirical literature, this study posits that the Strategic Leadership Capability Framework for the SBU Aerostructure (SLCF-Aero) influences employee engagement within the Aerostructure SBU. Employee engagement is operationalized

through the Utrecht Work Engagement Scale (UWES), encompassing vigor, dedication, and absorption (Bakker & Demerouti, 2008). The conceptual model is presented in Figure 2.
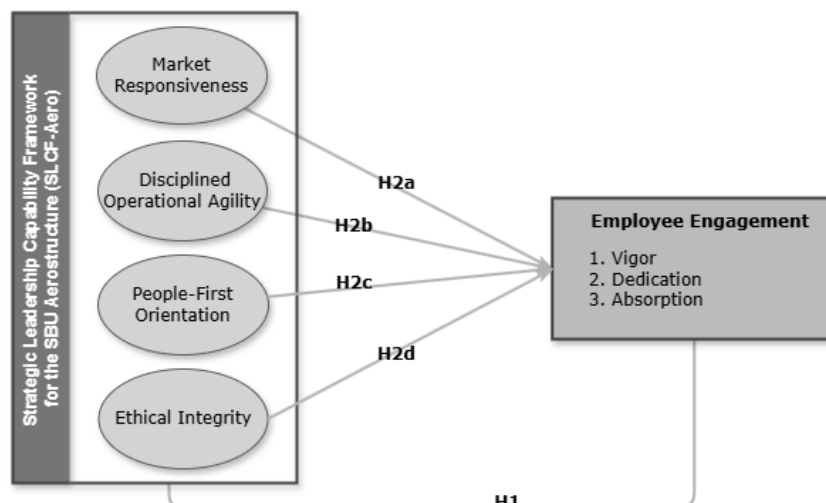

Figure 2. Conceptual Model of the Link between SLCF-Aero and Employee Engagement

Figure 2 illustrates the proposed relationship between employee perceptions of leadership practices—as enacted through the SLCF-Aero domains—and employee engagement outcomes

Based on the conceptual framework, the following hypotheses are formulated:

- H1: Perceived leadership capabilities (as conceptualized in SLCF-Aero) positively influence employee engagement.

- H2a: Perceived Market Responsiveness positively influences employee engagement.

- H2b: Perceived Disciplined Operational Agility positively influences employee engagement.

- H2c: Perceived People-First Orientation positively influences employee engagement.

- H2d: Perceived Ethical Integrity positively influences employee engagement.

B.   RESEARCH METHOD

This study adopts a quantitative, explanatory research design to examine the relationship between Strategic Leadership Capability Framework (SLCF-Aero) and employee engagement within the Aerostructure Strategic Business Unit (SBU) of XYZ Company. The research aims not only to develop the STFL-Aero framework but also to test its influence on employee engagement in the specific context of an aerospace SBU undergoing strategic transformation.

Population and Sampling

The population of this study consists of all active employees within the Aerostructure SBU of XYZ Company, totaling 153 individuals. A purposive sampling technique was employed to ensure representation across key sub-units and hierarchical levels. The final sample comprised 42 respondents, which meets recommended minimum thresholds for exploratory PLS-SEM analysis (Hair et al., 2021).

Instruments

Data were collected using a structured questionnaire comprising two sections. The first section measured employee perceptions of SLCF-Aero, which was developed through a rigorous review of Scopus-indexed literature and refined through expert input to ensure contextual relevance. The framework encompasses four leadership domains that includes 25 items, covering 17 capabilities.

The second section measured employee engagement using the nine-item Utrecht Work Engagement Scale (UWES-9), which assesses vigor, dedication, and absorption (Schaufeli et al., 2002). Items were rated on a 5-point Likert scale.

Data Analysis Techniques

Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed to analyze the data, using SmartPLS version 4. This method is suitable for models with hierarchical constructs, predictive objectives, and small to medium sample sizes (Hair et al., 2021). The analysis comprised two stages: measurement model evaluation and structural model evaluation, including hypothesis testing through bootstrapping procedures.

C.   RESULTS AND DISCUSSION

Description of Respondent Characteristics

A total of 42 respondents participated in this study. Most were aged over 40 (35.7%), followed by those aged 31–35 (31.0%). The sample was predominantly male (71.4%), and the majority had over six years of tenure (59.5%). Respondents were mainly from the Aero Center (28.6%), Finance & Research (23.8%), and Program divisions (23.8%). Further details can be found in Table 2.

Table 2. Respondent Characteristics

No	Criteria	Amount	Percentage (%)
1	Age		

	26–30 Years	5	11.9%
	31–35 Years	13	31.0%
	36–40 Years	9	21.4%
	> 40 Years	15	35.7%
	Total	42	100%
2	Gender		
	Male	30	71.4%
	Female	12	28.6%
	Total	42	100%
3	Division		
	Aero Center	12	28.6%
	Finance & Research	10	23.8%
	Program	10	23.8%
	Sales	8	19.0%
	Others	2	4.8%
	Total	42	100%
4	Tenure		
	< 1 Year	12	28.6%
	1–3 Years	5	11.9%
	> 6 Years	25	59.5%
	Total	42	100%

Descriptive Statistics

Overall, employees reported moderate to moderately high levels of engagement (Mean = 3.88), with Dedication (M = 3.96) perceived slightly higher than Vigor and Absorption. This suggests that while employees generally feel committed and enthusiastic about their work, there is still room to further enhance energy and immersion.

Table 3. Descriptive Statistics of Employee Engagement

Employee Engagement Dimensions	Mean	SD
Vigor	3.881	0.793
Dedication	3.960	0.755

Absorption	3.794	0.759
Overall Employee Engagement	3.88	0.767

In parallel, employee perceptions of leadership behaviors across the STLF-Aero domains were also moderate. Among leadership domains, Market Responsiveness (M = 3.80) and Ethical Integrity (M = 3.80) were perceived most positively, followed by People-First Orientation (M = 3.77), and Disciplined Operational Agility (M = 3.64).

Table 4. Descriptive Statistics of SLCF-Aero

SLCF-Aero Dimensions	Mean	SD
Market Responsiveness	3.80	0.785
Disciplined Operational Agility	3.64	0.868
People-First Orientation	3.77	0.765
Ethical Integrity	3.798	0.651
Overall STLF-Aero	3.75	0.77

Outer Model Analysis Results

Validity and Reliability

As shown in Table IV.3, the internal consistency reliability of all constructs exceeded the commonly recommended thresholds. These results collectively indicate that the measurement model demonstrates excellent reliability and adequate convergent validity, supporting the suitability of the constructs for further structural analysis.

Table 5. Result of Validity and Reliability

	Cronbach's alpha	rho_a	rho_c	AVE
Disciplined_Operational_Agility	0.928	0.936	0.941	0.666
Employee_Engagement	0.946	0.95	0.955	0.728
Ethical_Integrity	0.856	0.898	0.932	0.872
Market_Responsiveness	0.946	0.95	0.955	0.728
People-First_Orientation	0.942	0.944	0.953	0.744

Discriminant Validity

The HTMT values were all below the recommended threshold of 0.90 (Hair et al., 2021), with the highest value observed at 0.896 between People-First Orientation and Market Responsiveness. Taken together, these results confirm that each construct in the model is empirically distinct from the others, allowing for reliable interpretation of the structural relationships among the constructs.

Table 6. Result of Discriminant Validity

	Discipline d_Operati onal_Agili ty	Emplo yee_En gagem ent	Ethical _Integr ity	Market_ Respons iveness	People - First_O rientati on
Disciplined_Operati onal_Agility	0.816				
Employee_Engage ment	0.734	0.853			
Ethical_Integrity	0.787	0.624	0.934		
Market_Responsive ness	0.823	0.763	0.664	0.853	
People- First_Orientation	0.838	0.824	0.672	0.854	0.862

Inner Model Analysis Results

Result of Coefficient Determination

The combined leadership construct of STLF-Aero was modeled as a second-order latent variable (Model 1) to predict Employee Engagement. As shown in Table IV.9, the model explained 67.6% of the variance in Employee Engagement (R^2 = 0.676), with an adjusted R^2 of 0.667. Furthermore, the model 2, or the leadership dimension level analysis explained 69.7% of the variance in Employee Engagement (R^2 = 0.697), with an adjusted R^2 of 0.664.

Table 7. Result of R Square

Model	R-square	R-square adjusted
1	0.676	0.667
2	0.697	0.664

Following the guidelines of (Hair et al., 2021), this level of explanatory power is considered moderate to strong, indicating that the overarching leadership construct provides substantial insight into the drivers of engagement within SBU Aero.

Result of Path Coefficient

This study tested the hypotheses by analyzing the P-values for each independent variable's effect on the dependent variable. A hypothesis is accepted when the P-value is below 0.05. The results are presented in Table 8.

Table 8. Result of P-Value

	Original sample (O)	T statistics (|O/STDEV|)	P values
STLF-Aero -> Employee Engagement	0.822	10.146	0
Disciplined_Operational_Agility -> Employee_Engagement	0.006	0.026	0.979
Ethical_Integrity -> Employee_Engagement	0.095	0.539	0.59
Market_Responsiveness -> Employee_Engagement	0.186	0.927	0.354
People-First_Orientation -> Employee_Engagement	0.596	2.825	0.005

DISCUSSION

Result of Hypothesis

The structural model analysis revealed that overall, perceptions of leadership practices and capabilities as conceptualized in SLCF-Aero are positively associated with employee engagement. However, at the domain level, only the People-First Orientation domain demonstrated a statistically significant positive influence on employee engagement.

H1: The Influence of SLCF-Aero on Employee Engagement

The first hypothesis is strongly supported. The structural path from the higher-order construct (SLCF-Aero) to Employee Engagement is positive and highly significant ($\beta = 0.822$, t = 10.146, $p < 0.001$), indicating a robust direct influence. This result suggests that leadership practices and capabilities embodied in SLCF-Aero have substantial potential to enable and sustain employee engagement in the context of ongoing strategic transformation.

H2a: The Influence of Market Responsiveness on Employee Engagement

This hypothesis is not supported. The path coefficient was positive but not statistically significant ($\beta = 0.186$, $p = 0.354$). This may reflect the relatively lower visibility or maturity of Market Responsiveness practices within the current organizational climate.

H2b: The Influence of Disciplined Operational Agility on Employee Engagement

Not supported ($\beta = 0.006$, $p = 0.979$), suggesting that Disciplined Operational Agility practices are either not yet sufficiently embedded or not directly salient to employees' engagement experiences at this stage of transformation.

H2c: The Influence of People-First Orientation on Employee Engagement

Supported. This domain demonstrated a significant positive influence on engagement ($\beta = 0.596$, t = 2.825, $p = 0.005$). The result highlights the critical role of People-First leadership practices—such as fostering psychological safety, trust, and empowerment—in shaping employee engagement, particularly during periods of organizational change and uncertainty.

H2d: The Influence of Ethical Integrity on Employee Engagement

Not supported. The effect was positive but not statistically significant ($\beta = 0.095$, $p = 0.590$). Although Ethical Integrity is likely valued as a leadership foundation, its impact on day-to-day employee engagement perceptions may be more indirect or mediated through other relational leadership practices.

Perceptions of Leadership Capabilities

Employee perceptions of leadership practices and capabilities varied across the four SLCF-Aero domains. The results indicate that while certain practices are perceived as moderately present, others exhibit significant perception gaps.

1) Market Responsiveness was perceived at a medium level. Practices such as Visionary Thinking and Scale-Mindedness were viewed positively, whereas Market Orientation and Strategic Innovativeness were identified as areas requiring further development.

2) Disciplined Operational Agility emerged as the domain with the lowest perceived leadership practices and capabilities. While Quality Vigilance and Rapid Execution were moderately perceived, Digital Fluency and System Thinking showed critical capability gaps.

3) People-First Orientation was perceived positively but not strongly. Practices related to Situational Awareness and Psychological Safety were rated higher, while Collaborative Communication and Learning Agility presented opportunities for further strengthening leadership practices that foster engagement.

4) Ethical Integrity was perceived as moderately positive, suggesting a solid foundation of responsible leadership practice but with room for enhancement.

These findings highlight both strengths and areas for targeted leadership practice development within the SBU, underscoring the dynamic and evolving nature of leadership as experienced by employees during the transformation process.

Practical Implications

The findings underscore the relevance of an integrative leadership practices and capability framework in supporting transformation and engagement objectives within a manufacturing SBU context. The positive link between People-First leadership practices and employee engagement reinforces the need to prioritize the development and embedding of these practices into everyday leadership behaviors. This is particularly salient given the SBU's transformation agenda, where sustaining employee engagement is critical to maintaining operational performance and fostering innovation during change (Ho et al., 2025; Nguyen, 2020).

Moreover, the capability gaps identified in Market Responsiveness and Disciplined Operational Agility highlight the importance of targeted leadership development interventions to build leadership practices aligned with the SBU's strategic imperatives.

Practically, these findings suggest that leadership development efforts should focus not only on enhancing People-First leadership practices, but also on systematically embedding leadership practices across all SLCF-Aero domains. Doing so can support the emergence of a more consistent and adaptive leadership culture that enables both strategic transformation and employee engagement.

To ensure that leadership capability development moves beyond conceptual understanding and becomes embedded in leadership practice and organizational routines, a phased embedding strategy is recommended. This strategy is designed to align with best practices in leadership practice development and change management (Ghasemy et al., 2016; Shu, 2022; Sosik et al., 2020; Thomas & Carnall, 2008). The embedding approach integrates leadership practices into leadership rituals, HR processes, leadership development programs, recognition mechanisms, and continuous measurement.

It is important to emphasize that embedding leadership practices is not a one-time intervention but an ongoing, adaptive process that evolves in response to organizational learning and dynamic change contexts. Table 9 summarizes the key embedding areas and example activities that support sustained leadership practice adoption within the SBU context.

Table 9. Key Embedding Areas and Example Activities for SLCF-Aero

Embedding Area	Example Activities
Leadership Development	Develop Leadership Capability Handbook; Conduct Leadership Townhall; Integrate SLCF-Aero into leadership onboarding programs.
Leadership Practice Embedding	Define and implement Leadership Rituals aligned with SLCF-Aero; Launch quarterly Leadership Practice Focus Campaigns; Provide coaching on leadership practices and behaviors.
HR Process Alignment	Integrate SLCF-Aero practices into 360 Feedback and Appraisal forms; Establish Recognition Mechanisms linked to leadership practices.
Measurement & Continuous Improvement	Conduct Leadership Pulse Surveys; Monitor impact on employee engagement indicators; Continuously refine HR processes and leadership practices based on feedback.

This embedding strategy is intended to progressively build leadership capability maturity within the SBU, moving from awareness to sustained practice adoption and ongoing cultural reinforcement. It emphasizes the need for leadership capability development to be:

1. Context-sensitive → aligned with the specific strategic imperatives and cultural context of the SBU.

2. Integrated → embedded into leadership routines and HR systems, and enacted in everyday leadership practices, rather than treated as isolated training interventions.

3. Iterative and adaptive → supported by continuous measurement, feedback, and refinement to sustain and evolve leadership practices over time.

For practitioners, this approach provides a roadmap for translating leadership capability frameworks into practical, dynamic action that supports both strategic transformation and employee engagement. For researchers, it highlights the value of integrating capability development with organizational systems and leadership practices to drive sustained and adaptive leadership culture change

D. CONCLUSION

This study contributes to both leadership practice and organizational transformation literature by developing and exploring a context-sensitive leadership practices and capability framework (SLCF-Aero) within a manufacturing SBU undergoing strategic transformation. The findings highlight the importance of fostering leadership practices that directly support employee engagement, with People-First leadership practices emerging as particularly salient during periods of organizational change. By emphasizing the dynamic embedding of leadership practices—through leadership routines, HR processes, and continuous feedback mechanisms—this study underscores the value of approaching leadership capability development as an ongoing, adaptive process rather than a one-time intervention. Such a perspective aligns with emerging views of leadership as a socially constructed and enacted practice that evolves in response to organizational contexts and transformation needs.

For practitioners, this research offers a roadmap for translating leadership frameworks into actionable practices that sustain both engagement and strategic transformation outcomes. For researchers, it suggests the value of further exploring how leadership practice embedding processes can contribute to the evolution of leadership cultures and organizational learning.

Overall, this study reinforces the view that leadership capability development must move beyond static models toward the active cultivation of leadership practices that are continuously learned, enacted, and refined within organizations navigating complex and evolving environments.

LIMITATION

The research was conducted within a single SBU in an Indonesian aerospace company, which may limit the generalizability of findings. Additionally, the cross-sectional nature of the data does not capture how leadership practices and employee engagement may evolve over time. Future research could build on this work by conducting longitudinal studies to examine the sustained embedding of leadership practices and their dynamic interaction with organizational transformation processes across diverse contexts.

E.   REFERENCES

Bailey, J., Guinan, P. J., O'Connor, G., & Shuttleworth, D. (2025). Structural and Psychological Empowerment in R&D Teams. Research-Technology Management, 68(2), 23–36. https://doi.org/10.1080/08956308.2024.2446105

Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. Career Development International, 13(3), 209–223. https://doi.org/10.1108/13620430810870476

Bourne, D., & Ranieri, A. (2025). Leader versus Leadership Development. In Elgar Encyclopedia of Leadership (pp. 132–133). Edward Elgar Publishing. https://doi.org/10.4337/9781035307074.00061

Boyatzis, R. E., & Dhar, U. (2023). When Normal is Not Normal: A Theory of the Non-Linear and Discontinuous Process of Desired Change and its Managerial Implications. The Journal of Applied Behavioral Science, 59(3), 364–390. https://doi.org/10.1177/00218863231153218

Brauckmann, S., Pashiardis, P., & Ärlestig, H. (2023). Bringing context and educational leadership together: fostering the professional development of school principals. Professional Development in Education, 49(1), 4–15. https://doi.org/10.1080/19415257.2020.1747105

Cao, P., Shen, X., Duan, G., Liu, J., & Guo, K. (2024). Quality-integrated diagnostic platform for aerospace complex product assembly processes. Computers & Industrial Engineering, 189, 109796. https://doi.org/10.1016/j.cie.2023.109796

CARSON, J. B., TESLUK, P. E., & MARRONE, J. A. (2007). SHARED LEADERSHIP IN TEAMS: AN INVESTIGATION OF ANTECEDENT CONDITIONS AND PERFORMANCE. Academy of Management Journal, 50(5), 1217–1234. https://doi.org/10.2307/20159921

Dan Dumbacher. (2024, February 1). Preparing the Engineers of the Future. American Institute of Aeronautics and Astronautics (AIAA).

Day, D. V., Fleenor, J. W., Atwater, L. E., Sturm, R. E., & McKee, R. A. (2014). Advances in leader and leadership development: A review of 25years of research and theory. The Leadership Quarterly, 25(1), 63–82. https://doi.org/10.1016/j.leaqua.2013.11.004

DeRue, D. S. (2011). Adaptive leadership theory: Leading and following as a complex adaptive process. Research in Organizational Behavior, 31, 125–150. https://doi.org/10.1016/j.riob.2011.09.007

Doz, Y. L., & Kosonen, M. (2010). Embedding Strategic Agility : Embedding strategic agility: A leadership agenda for accelerating business model renewal. Long Range Planning, 43(2–3), 370–382. https://doi.org/10.1016/j.lrp.2009.07.006

Drysdale, L., Gurr, D., & Goode, H. (2021). How successful school principals balance their leadership and management roles to make a difference. In How School Principals Use Their Time (pp. 126–140). Routledge. https://doi.org/10.4324/9780429327902-8

Fairhurst, G. T., & Grant, D. (2010). The Social Construction of Leadership: A Sailing Guide. Management Communication Quarterly, 24(2), 171–210. https://doi.org/10.1177/0893318909359697

Furtner, M., Liegl, S., & Klösel, K. (2025). Self-leadership: The essential drive for entrepreneurs. Journal of the International Council for Small Business, 6(2), 200–205. https://doi.org/10.1080/26437015.2024.2402412

Galbraith, S. (2016). Master of Organization Design: Recognizing Patterns from Living, Breathing Organizations. In The Palgrave Handbook of Organizational Change Thinkers (pp. 1–20). Springer International Publishing. https://doi.org/10.1007/978-3-319-49820-1_39-1

Gasman, L. (2019). Additive aerospace considered as a business. In Additive Manufacturing for the Aerospace Industry (pp. 327–340). Elsevier. https://doi.org/10.1016/B978-0-12-814062-8.00017-0

Ghasemy, M., Hussin, S., & Daud, M. A. K. M. (2016). Academic leadership capability framework: a comparison of its compatibility and applicability in Australia, New Zealand, and Malaysia. Asia Pacific Education Review, 17(2), 217–233. https://doi.org/10.1007/s12564-016-9425-x

Guzmán, V. E., Muschard, B., Gerolamo, M., Kohl, H., & Rozenfeld, H. (2020). Characteristics and Skills of Leadership in the Context of Industry 4.0. Procedia Manufacturing, 43, 543–550. https://doi.org/10.1016/j.promfg.2020.02.167

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). Evaluation of

Reflective Measurement Models (pp. 75–90). https://doi.org/10.1007/978-3-030-80519-7_4

Heo, D., & Smuttrasen, K. (2025). A cross-generational learning in organizations: the case of four civil engineering firms. Development and Learning in Organizations: An International Journal. https://doi.org/10.1108/DLO-09-2024-0281

Ho, Y.-H., Nguyen, C.-H., & Giang, T. T. (2025). Cultivating faculty well-being and engagement through transformational leadership in emerging country. International Journal of Educational Management, 39(1), 36–54. https://doi.org/10.1108/IJEM-07-2024-0414

Holtström, J. (2022). Business model innovation under strategic transformation. Technology Analysis & Strategic Management, 34(5), 550–562. https://doi.org/10.1080/09537325.2021.1914329

Hossain, S., Fernando, M., & Akter, S. (2025). Digital Leadership: Towards a Dynamic Managerial Capability Perspective of Artificial Intelligence-Driven Leader Capabilities. Journal of Leadership & Organizational Studies, 32(2), 189–208. https://doi.org/10.1177/15480518251319624

Hubley, P., Gottlieb, L. N., & Durrant, M. (2024). Cultivating Strengths-Based Leadership Capabilities: The Strengths-Based Nursing and Healthcare Leadership Capabilities Framework. Canadian Journal of Nursing Leadership, 36(4), 9–16. https://doi.org/10.12927/cjnl.2024.27312

Husebø, S. E., & Olsen, Ø. E. (2016). Impact of clinical leadership in teams' course on quality, efficiency, responsiveness and trust in the emergency department: study protocol of a trailing research study. BMJ Open, 6(8), e011899. https://doi.org/10.1136/bmjopen-2016-011899

Kelloway, E. K., & Gilbert, S. (2017). Does It Matter Who Leads Us?: The Study of Organizational Leadership. In An Introduction to Work and Organizational Psychology (pp. 192–211). Wiley. https://doi.org/10.1002/9781119168058.ch11

Kotnour, T. (2011). An Emerging Theory of Enterprise Transformations. Journal of Enterprise Transformation, 1(1), 48–70. https://doi.org/10.1080/19488289.2010.550669

Kucuk Yilmaz, A. (2020). Transformation process risk management to sustainable corporate performance and quality management: developing flowcharts for approved training organization. Aircraft Engineering and Aerospace Technology, 92(2), 201–212. https://doi.org/10.1108/AEAT-07-2019-0151

Liu, Y., & Keller, R. T. (2021). How Psychological Safety Impacts R&D Project Teams'

Performance. Research-Technology Management, 64(2), 39–45. https://doi.org/10.1080/08956308.2021.1863111

McCarthy, P., Sammon, D., & Alhassan, I. (2022). Digital Transformation Leadership Characteristics: A Literature Analysis. Journal of Decision Systems, 32(1), 79–109. https://doi.org/10.1080/12460125.2021.1908934

Mellor, N., Wilday, J., Lunt, J., & Holroyd, J. (2015). High reliability organisations and mindful leadership. In SYMPOSIUM SERIES.

Morandini, S., Fraboni, F., Hall, M., Quintana-Amate, S., & Pietrantoni, L. (2024). Human factors and emerging needs in aerospace manufacturing planning and scheduling. Cognition, Technology & Work. https://doi.org/10.1007/s10111-024-00785-3

Nguyen, D. L. (2020). Mediating the role of psychological empowerment between transformational leadership and employee engagement. Management Science Letters, 4039–4044. https://doi.org/10.5267/j.msl.2020.7.005

Ohlsson, J. (2023). Knowledge transfer as transformative dialogue: a pedagogical view on learning and meta-knowledge transfer in a leadership development program. Journal of Organizational Change Management, 36(8), 117–128. https://doi.org/10.1108/JOCM-03-2023-0100

OREG, S., & BERSON, Y. (2011). LEADERSHIP AND EMPLOYEES' REACTIONS TO CHANGE: THE ROLE OF LEADERS' PERSONAL ATTRIBUTES AND TRANSFORMATIONAL LEADERSHIP STYLE. Personnel Psychology, 64(3), 627–659. https://doi.org/10.1111/j.1744-6570.2011.01221.x

Piip, J. (2015). Leadership Talent: A Study of the Potential of People in the Australian Rail Industry. Social Sciences, 4(3), 718–741. https://doi.org/10.3390/socsci4030718

Rajagopal, A., & Davila, F. A. M. (2020). Organisational performance and growth in start-up enterprises: analysis of leadership patterns and functional perceptions. International Journal of Business Excellence, 22(4), 516–541. https://ideas.repec.org/a/ids/ijbexc/v22y2020i4p516-541.html

Rajamani, M. R. (2021). Application of Selective Assembly as an Aerospace Design for Manufacturing and Assembly Principle for Effective Variation Management in Aerospace Assemblies. SAE International Journal of Advances and Current Practices in Mobility, 3(3), 2021-01–0005. https://doi.org/10.4271/2021-01-0005

Rosing, K., Frese, M., & Bausch, A. (2011). Explaining the heterogeneity of the leadership-innovation relationship: Ambidextrous leadership. The Leadership Quarterly, 22(5),

956–974. https://doi.org/10.1016/j.leaqua.2011.07.014

Rowold, J., & Rohmann, A. (2009). Relationships Between Leadership Styles and Followers' Emotional Experience and Effectiveness in the Voluntary Sector. Nonprofit and Voluntary Sector Quarterly, 38(2), 270–286. https://doi.org/10.1177/0899764008317304

Sacavém, A., de Bem Machado, A., dos Santos, J. R., Palma-Moreira, A., Belchior-Rocha, H., & Au-Yong-Oliveira, M. (2025). Leading in the Digital Age: The Role of Leadership in Organizational Digital Transformation. Administrative Sciences, 15(2), 43. https://doi.org/10.3390/admsci15020043

Sargam, S., & Pandey, A. (2023). Responsible leadership toward garnering legitimacy from stakeholders in India: an institutional perspective. Cross Cultural & Strategic Management, 30(4), 755–778. https://doi.org/10.1108/CCSM-09-2022-0156

Schaufeli, W. B., Salanova, M., González-romá, V., & Bakker, A. B. (2002). The Measurement of Engagement and Burnout: A Two Sample Confirmatory Factor Analytic Approach. Journal of Happiness Studies, 3(1), 71–92. https://doi.org/10.1023/A:1015630930326

Schiuma, G., Schettini, E., Santarsiero, F., & Carlucci, D. (2022). The transformative leadership compass: six competencies for digital transformation entrepreneurship. International Journal of Entrepreneurial Behavior & Research, 28(5), 1273–1291. https://doi.org/10.1108/IJEBR-01-2021-0087

Sergio Fernandez. (2005). Developing and Testing an Integrative Framework of Public Sector Leadership: Evidence from the Public Education Arena. Journal of Public Administration Research and Theory: J-PART, Oxford University Press., 15(2), 197–217. https://www.jstor.org/stable/3525697

Shu, E. (2022). Fluent in change: enabling strategic change in an established firm. European J. of International Management, 18(4), 603. https://doi.org/10.1504/EJIM.2022.126163

Sosik, J. J., Chun, J. U., & Ete, Z. (2020). Character and Leadership. In The Wiley Encyclopedia of Personality and Individual Differences (pp. 505–510). Wiley. https://doi.org/10.1002/9781119547181.ch348

Strauss, R. E. (2012). Marketing Planning by Design (R. E. Strauss, Ed.). Wiley. https://doi.org/10.1002/9781119206217

Thomas, H., & Carnall, C. (2008). Leadership development: integration in context. Strategic Change, 17(5–6), 193–206. https://doi.org/10.1002/jsc.826

Țîțu, M. A., & Pop, G. I. (2019). Regarding Quality Management System in Aerospace Industry Organizations. Materials Science Forum, 957, 221–230. https://doi.org/10.4028/www.scientific.net/MSF.957.221

Uhl-Bien, M., & Arena, M. (2017). Complexity leadership. Organizational Dynamics, 46(1), 9–20. https://doi.org/10.1016/j.orgdyn.2016.12.001

Weiss, D. (2006). Integrated leadership development. Development and Learning in Organizations: An International Journal, 20(5). https://doi.org/10.1108/dlo.2006.08120ead.010

Zaccaro, S. J. (2007). Trait-based perspectives of leadership. American Psychologist, 62(1), 6–16. https://doi.org/10.1037/0003-066X.62.1.6