

Strategic Agility, Employee Resilience, and Self-Efficacy as Micro Foundation of Product Development Performance: Fixed Mobile Convergence Business Transformation Context in Indonesia

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Abstract

The global telecommunications industry is experiencing structural revenue stagnation, with a projected CAGR of only 2.9% through 2028, forcing operators to pursue strategic transformation through Fixed Mobile Convergence (FMC). Nevertheless, scholarly understanding of how organizational strategic agility translates into FMC product development performance (PDP) through individual-level microfoundations, particularly employee resilience and self-efficacy, remains limited in post-merger environments. To address this gap, this study investigates the relationships among organizational strategic agility (OSA), employee resilience, self-efficacy, and FMC Product Development Performance (PDP) within the context of the 2023 merger between Telco Company's fixed broadband and mobile business units, one of the largest FMC integration initiatives in Indonesia's telecommunications industry. This study employed a quantitative cross-sectional design using purposive sampling, involving 170 employees directly engaged in FMC operations across the Marketing, IT, and Planning & Transformation Directorates (100 transferred employees from the Holding company and 70 existing Telco Company employees). Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results indicate that OSA has a positive and significant direct effect on FMC PDP ($\beta = 0.274$, $p < 0.001$). In addition, employee resilience (indirect $\beta = 0.092$, $p = 0.001$) and self-efficacy (indirect $\beta = 0.071$, $p = 0.011$) partially mediate the relationship between OSA and PDP. Collectively, these variables explain 43.2% of the variance in FMC PDP ($R^2 = 0.432$). Furthermore, the findings reveal a dual-culture workforce pattern, in which transferred employees demonstrate higher resilience ($M = 3.63$) while existing employees exhibit higher self-efficacy ($M = 3.54$). This complementary psychological capability profile provides actionable insights for post-merger human capital integration and workforce development strategies. By extending the Dynamic Capabilities View and Psychological Capital perspectives into an FMC post-merger context, this study contributes a microfoundational explanation of how organizational agility is transformed into product development performance during large-scale telecommunications convergence initiatives.

Keywords: Strategic Agility; Employee Resilience; Self-Efficacy; Product Development Performance; Fixed Mobile Convergence; Post-Merger Integration.

A. INTRODUCTION

The global telecommunications industry faces a fundamental growth paradox. Industry revenues are projected to grow at a compound annual growth rate (CAGR) of only 2.9% through 2028 despite continuing investment requirements (PricewaterhouseCoopers [PwC], 2025). As traditional telecommunications services become increasingly commoditized, operators face diminishing pricing power, compelling them to seek new avenues of value creation beyond legacy connectivity services (PwC, 2025). In response, Fixed Mobile Convergence (FMC) has emerged as a leading strategic solution, integrating fixed broadband and mobile services into unified customer propositions that enhance revenue opportunities, reduce operational complexity, and improve customer retention through multi-play bundling (Rokkas et al., 2009).

Indonesia presents a particularly compelling FMC opportunity. As of 2020, only 7.5% of Indonesian internet users subscribed to fixed broadband services, compared to 97.1% who purchased mobile data packages (APJII, 2020). This substantial household penetration gap indicates significant untapped demand for converged telecommunications services. In response to this opportunity, the Telco Company Holding Group initiated one of the largest FMC transformation programs in Indonesia by integrating its fixed broadband business with Telco Company's mobile operations as part of its strategic transformation agenda, "5 Bold Moves," since 2023. The integration involved transferring approximately 650 employees from the Holding company to the subsidiary's consumer business and reassigning approximately 200 existing subsidiary employees to FMC-related functions.

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Consequently, the merger created a dual-culture workforce in which employees from different organizational backgrounds were required to operate within a unified organizational structure.

Although the merger was strategically justified as a response to industry transformation, post-merger product development performance (PDP) has deteriorated significantly. Product development cycles that previously required approximately two to three months have expanded to between six and eighteen months. Furthermore, the flagship FMC product, Telco Company One, achieved only around 10% of its targeted monthly sales volume, while fixed broadband revenue growth turned negative (-1.5% year-on-year) for the first time in December 2025. These developments suggest that successful FMC transformation depends not only on technological integration but also on organizational and human capital factors that influence the effectiveness of post-merger product development activities.

Although substantial research has examined the relationship between strategic agility and innovation or product development performance (Ahmmed et al., 2023; Wei et al., 2023), two important research gaps remain. First, prior studies have not examined how organizational strategic agility influences product development performance through the mediating mechanisms of employee resilience and self-efficacy within a post-merger FMC environment. The influential model proposed by Bouguerra et al. (2024) was developed in a Turkish manufacturing context, whereas FMC telecommunications involves fundamentally different operational characteristics, including dual Fulfillment, Assurance, and Billing (FAB) architectures, complex regulatory interdependencies, and significantly greater service integration complexity. Consequently, the applicability of these theoretical relationships in FMC transformation settings remains uncertain.

Second, existing research has largely overlooked the human capital implications of dual-culture workforce integration following mergers. Specifically, little is known about whether employees originating from different organizational cultures develop distinct levels of resilience and self-efficacy, and how these psychological capabilities contribute to product development performance. Given that post-merger integration frequently involves cultural adjustment, identity reconstruction, and new patterns of collaboration, understanding these differences is particularly important for FMC transformation initiatives.

Accordingly, this study addresses both gaps by examining the relationships among Organizational Strategic Agility (OSA), Employee Resilience (ER), Self-Efficacy (SE), and Product Development Performance (PDP) in the context of Telco Company's post-merger FMC transformation. This study offers two primary theoretical contributions. First, it extends the strategic agility microfoundations model proposed by Bouguerra et al. (2024) to a post-merger FMC telecommunications context characterized by high technological and organizational complexity. Second, it introduces the concept of a dual-culture workforce microfoundation by demonstrating how differences in employee resilience and self-efficacy across merged employee cohorts contribute to product development performance. These contributions advance both the Dynamic Capabilities View and post-merger integration literature by providing a microfoundational explanation of organizational performance during large-scale telecommunications convergence initiatives.

B. LITERATURE REVIEW

Dynamic Capabilities View and Organizational Strategic Agility

The Dynamic Capabilities View (DCV), developed by Teece et al. (1997), defines dynamic capabilities as an organization's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments (Teece et al., 1997). These capabilities were later operationalized into three core organizational routines: sensing, seizing, and transforming (Teece, 2007). Sensing refers to the identification and assessment of market opportunities and threats, seizing involves mobilizing resources to capture value from those opportunities, and transforming concerns the continuous reconfiguration of organizational assets and structures to sustain competitiveness over time (Teece, 2007). Recent developments in DCV emphasize that organizational capabilities do not emerge solely from structures, processes, or technologies, but are ultimately rooted in the actions, behaviors, and psychological attributes of individuals. Consequently, scholars increasingly conceptualize employee-level capabilities as microfoundations that enable dynamic capabilities to function effectively within organizations (Teece, 2007; Wei et al., 2023). Within this perspective, employee resilience and self-efficacy are critical psychological resources that facilitate organizational adaptation, learning, and transformation in the face of uncertainty.

Organizational Strategic Agility (OSA) is a dynamic capability at the organizational level, reflecting a firm's ability to adjust its strategic direction while maintaining operational effectiveness continuously (Doz & Kosonen, 2010). Doz and Kosonen (2008) conceptualized OSA through three interrelated dimensions: (1) Strategic Sensitivity, referring to the ability to detect and interpret environmental changes; (2) Leadership Unity, referring to the alignment and coherence of strategic decision-making among senior leaders; and (3) Resource Fluidity, referring to the organization's capacity to rapidly redeploy resources in response to changing priorities (Doz & Kosonen, 2008). Ahammad et al. (2023), in a comprehensive review of strategic agility literature, confirmed that these dimensions constitute the core mechanisms through which organizations achieve adaptability, knowledge integration, and strategic renewal (Ahammad et al., 2023). Similarly, Wei et al. (2023) proposed an "adapt–innovate–respond" spiral model that demonstrates how dynamic capabilities emerge through interactions across individual, team, and organizational levels, thereby supporting the multilevel perspective adopted in this study (Wei et al., 2023). From a microfoundational perspective, strategic agility creates organizational conditions that encourage employees to adapt, learn, and respond effectively to changing circumstances. Strategic Sensitivity enhances awareness of environmental changes, leadership unity provides clear direction and strategic coherence, while resource fluidity supplies the resources necessary for experimentation and adaptation. Together, these organizational conditions strengthen employees' psychological capacities, particularly resilience and self-efficacy, which subsequently influence organizational outcomes such as product development performance.

Previous empirical evidence supports the direct relationship between strategic agility and product development performance. Bouguerra et al. (2024) demonstrated that strategic agility significantly improves product development outcomes by enabling organizations to accelerate decision-making, respond to market changes more effectively, and improve innovation execution (Bouguerra et al., 2024). Strategic agility enhances organizational flexibility and responsiveness, thereby facilitating faster product development cycles and increasing the likelihood of successful product launches. In the FMC post-merger context, strategic agility becomes particularly important because organizations must simultaneously manage technological integration, organizational restructuring, and workforce adaptation. Consequently, higher levels of organizational strategic agility are expected to contribute directly to superior product development performance.

H1: Organizational Strategic Agility has a positive and significant direct effect on FMC Product Development Performance.

Product Development Performance

Product Development Performance (PDP) is defined as the multidimensional outcome of a firm's product development processes in delivering innovations that satisfy customer needs while achieving appropriate levels of time-to-market, product quality, and commercial success (Mallick & Schroeder, 2005). Following Mallick and Schroeder (2005) and Bouguerra et al. (2024), PDP is operationalized through three dimensions: Speed to Market, referring to the time required for a new product to reach the market; Speed of Development Process, referring to the efficiency of progressing from idea generation to commercialization; and New Product Success Rate, referring to the proportion of launched products that achieve predefined performance objectives. Within the Dynamic Capabilities View, PDP represents an important organizational outcome reflecting the effectiveness of sensing, seizing, and transforming activities in converting opportunities into marketable innovations (Teece, 2007). In highly dynamic industries such as telecommunications, superior product development performance enables firms to respond rapidly to changing customer demands, technological disruption, and competitive pressures.

Idrees et al. (2022) demonstrated that organizational agility mediates the relationship between knowledge management capabilities and new product development performance, confirming agility as a critical mechanism for achieving innovation outcomes in dynamic environments (Idrees et al., 2022). Similarly, Peng et al. (2023) highlighted the configurational complexity of PDP in technology-intensive industries, showing that superior product development outcomes emerge through combinations of organizational capabilities, digital transformation, and absorptive capacity (Peng et al., 2023). In FMC transformation environments, PDP becomes particularly important because organizations must simultaneously integrate technologies, coordinate cross-functional teams, and rapidly introduce converged products to the market. Consequently, understanding the organizational and individual mechanisms that drive PDP is essential for successful post-merger transformation.

Employee Resilience as Mediating Microfoundation

Employee resilience refers to an individual behavioral capability that enables employees to recover from adversity, adapt to changing circumstances, and maintain effective performance under challenging conditions

(Bouguerra et al., 2024; Luthans et al., 2007). Within the Psychological Capital framework, resilience is conceptualized as a positive psychological resource that can be developed through organizational experiences rather than being merely a stable personality trait (Luthans et al., 2007). Näswall et al. (2015) operationalized employee resilience as four behavioral dimensions: agility (role flexibility), adaptability (responsiveness to environmental change), proactive problem-solving, and work stress management. From a Dynamic Capabilities perspective, employee resilience functions as a microfoundation that enables organizational adaptation and transformation. While strategic agility provides organizational direction and resource flexibility, resilient employees are better able to absorb uncertainty, respond constructively to change, and sustain performance during periods of organizational disruption. Consequently, resilience serves as an individual-level mechanism through which organizational capabilities are translated into operational outcomes (Teece, 2007; Wei et al., 2023).

Previous research supports the role of employee resilience in enhancing performance. Hallak et al. (2018) demonstrated that employee resilience contributes to organizational performance in dynamic business environments. Similarly, Bouguerra et al. (2024) argued that resilient employees are more likely to engage in proactive problem-solving, maintain optimism in the face of uncertainty, and generate innovative solutions to product-related challenges. Such behaviors are particularly important in product development, where employees frequently encounter technological complexity, shifting requirements, and implementation challenges. In post-merger FMC environments, resilience becomes even more critical because employees must adapt simultaneously to new organizational structures, technologies, and collaboration patterns. Strategic agility can create the organizational conditions for adaptation, but resilient employees ultimately determine whether those opportunities translate into effective product development outcomes. Ratnawati and Suryani (2024) further argued that employee resilience constitutes a microfoundation of organizational resilience and interacts with dynamic capabilities to facilitate organizational renewal and competitive adaptation (Ratnawati & Suryani, 2024). Therefore, resilience is expected to function as an important mediating mechanism linking organizational strategic agility and FMC product development performance.

H2: Employee Resilience positively and significantly mediates the relationship between Organizational Strategic Agility and FMC Product Development Performance.

Self-Efficacy as Mediating Microfoundation

Self-efficacy refers to an individual's belief in their capability to successfully organize and execute the actions required to achieve specific goals and perform tasks effectively (Bandura, 1997). According to Social Cognitive Theory, self-efficacy influences how individuals think, feel, motivate themselves, and behave when facing challenging situations (Bandura, 1997). Following Bandura (1997) and Bouguerra et al. (2024), self-efficacy is conceptualized through four dimensions: (1) confidence in task execution; (2) capacity to mobilize resources; (3) perseverance under pressure; and (4) goal-setting and mastery orientation. Within the Dynamic Capabilities View, self-efficacy serves as an individual-level microfoundation, enabling employees to translate organizational opportunities into effective actions. While strategic agility provides strategic direction, resource flexibility, and organizational support, employees must possess sufficient confidence and capability beliefs to utilize these resources effectively. Consequently, self-efficacy serves as a psychological mechanism through which organizational capabilities are translated into adaptive behaviors and performance outcomes (Teece, 2007; Wei et al., 2023).

Bouguerra et al. (2024) argued that self-efficacy strengthens the relationship between organizational strategic capabilities and product development outcomes because employees with high self-efficacy are more willing to embrace change, experiment with new approaches, solve complex problems, and persist in the face of obstacles. Such employees are more likely to proactively acquire new knowledge, master emerging technologies, and contribute to innovation processes, thereby enhancing product development performance. In FMC post-merger environments, self-efficacy becomes particularly important because employees must operate within new organizational structures, unfamiliar technologies, and evolving business processes. Employees who believe they can navigate these changes are more likely to engage in learning behaviors, collaborate across organizational boundaries, and contribute effectively to converged product development initiatives. Therefore, self-efficacy can be viewed as a critical psychological resource that enables strategic agility to generate operational outcomes.

Empirical evidence supports the importance of self-efficacy for organizational performance. Purwanto et al. (2023) found that self-efficacy significantly predicts innovative work behavior and business performance within Indonesian organizations (Purwanto et al., 2023). Similarly, Luthans, Youssef-Morgan, and Avolio (2024) demonstrated that self-efficacy positively influences employee performance, engagement, adaptability, and

effectiveness under conditions of organizational uncertainty (Luthans et al., 2024). Taken together, these findings suggest that organizational strategic agility is more likely to improve product development performance when employees possess strong self-efficacy beliefs that enable them to utilize organizational resources, respond to change, and execute innovation-related tasks effectively. Therefore, self-efficacy is expected to mediate the relationship between organizational strategic agility and FMC product development performance.

H3: Self-Efficacy positively and significantly mediates the relationship between Organizational Strategic Agility and FMC Product Development Performance.

Integrated Research Model

The Dynamic Capabilities View suggests that organizational outcomes emerge from the interaction between organizational-level capabilities and individual-level microfoundations. In the context of FMC transformation, organizational strategic agility provides the strategic and structural conditions necessary for adaptation, while employee resilience and self-efficacy enable individuals to respond effectively to uncertainty, technological change, and post-merger integration challenges. Consequently, the combined influence of organizational strategic agility, employee resilience, and self-efficacy is expected to contribute significantly to product development performance.

H4: Organizational Strategic Agility, Employee Resilience, and Self-Efficacy simultaneously exert a positive and significant combined effect on FMC Product Development Performance.

C. METHODS

Research Design and Sample

This study employed a quantitative causal research design using a cross-sectional survey approach grounded in the positivist research paradigm (Sekaran & Bougie, 2016). The unit of analysis comprised Telco Company employees directly involved in Fixed Mobile Convergence (FMC) and Fixed Broadband product development activities following the 2023 post-merger integration. Purposive sampling was used because the study focused on employees with direct experience in FMC integration and product development processes. To ensure respondent relevance, three inclusion criteria were applied: (1) employment within the Marketing, Information Technology (IT), Sales, or Planning & Transformation Directorates; (2) direct involvement in FMC integration and product development activities; and (3) holding a position at the General Manager, Manager, Officer, or Staff level.

The target population consisted of approximately 850 employees involved in FMC-related functions, including approximately 650 transferred employees from the Holding Company and 200 existing Telco Company employees assigned to FMC operations. Structured online questionnaires were distributed between January 20 and February 18, 2026. A total of 182 responses were received, of which 170 were deemed complete and valid for analysis, resulting in a usable response rate of 93.4%. The final sample consisted of 100 transferred employees (58.8%) and 70 existing Telco Company employees (41.2%). The sample size exceeds the minimum requirement recommended for PLS-SEM analysis. Following Hair et al. (2017), the sample surpasses the “10-times rule,” which requires a minimum sample size equal to ten times the maximum number of structural paths directed toward any endogenous construct. In addition, a sample size of 170 is considered adequate for detecting medium effect sizes in mediation-based PLS-SEM models, thereby providing sufficient statistical power for hypothesis testing (Hair et al., 2017).

Table 1. Respondent Profile (N = 170)

Characteristic	Category	n	%
Employee Status	Transfer Employees	100	58.8
	Existing Employees	70	41.2
Position Level	General Manager	4	2.4
	Manager	30	17.6
	Officer	80	47.1
	Staff	56	32.9
Directorate	Marketing	62	36.5
	Information Technology	48	28.2
	Sales	39	22.9
	Planning & Transformation	20	11.8
Age Group (Years)	20–30	38	22.4

Characteristic	Category	n	%
	31–40	118	69.4
	41–50	11	6.5
	> 50	3	1.8

Note. Transfer employees refer to personnel transferred from the Holding company following the 2023 FMC integration initiative. Percentages may not total exactly 100 due to rounding.
Source: Research data, 2026

Measurement Instruments

The survey instrument consisted of 15 reflective indicators representing four latent constructs, measured using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Product Development Performance (PDP) was measured using three items adapted from Mallick and Schroeder (2005) and Bouguerra et al. (2024). Organizational Strategic Agility (OSA) was measured using three items adapted from Doz and Kosonen (2008, 2010). Employee Resilience (ER) was measured using four items adapted from Näswall et al. (2015) and Bouguerra et al. (2024). Self-Efficacy (SE) was measured using five items adapted from Bandura (1997) and Luthans et al. (2007). All measurement items were adapted to the FMC post-merger context and reviewed to ensure content relevance and contextual appropriateness. A complete list of measurement items is available in the supplementary appendix. Prior to the main survey, a pilot study involving 30 respondents was conducted to assess instrument validity and reliability. Item validity was evaluated using Pearson correlation analysis, while reliability was assessed using Cronbach's Alpha. The pilot results indicated acceptable overall reliability (Cronbach's Alpha = 0.905), exceeding the recommended threshold of 0.70 (Hair et al., 2017). Although several indicators exhibited marginal validity values during the pilot stage, all indicators were retained because they demonstrated acceptable theoretical relevance and subsequently satisfied the validity and reliability criteria during the main PLS-SEM measurement model assessment.

Analytical Method

Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 4.0 was employed to test the proposed research model. PLS-SEM was selected for its suitability for both predictive and exploratory research, its ability to estimate complex mediation relationships, and its robustness when handling non-normal data distributions (Hair et al., 2017). The analysis was conducted in two stages. First, the measurement model (outer model) was evaluated to assess indicator reliability, internal consistency reliability, convergent validity, and discriminant validity. Indicator reliability was assessed using outer loadings (> 0.70), internal consistency reliability using Cronbach's Alpha and Composite Reliability (> 0.70), convergent validity using Average Variance Extracted (AVE > 0.50), and discriminant validity using the Heterotrait–Monotrait Ratio (HTMT < 0.90) (Hair et al., 2017). Second, the structural model (inner model) was assessed by examining path coefficients, coefficient of determination (R^2), effect size (f^2), predictive relevance (Q^2), and mediation effects. Hypothesis testing was conducted using a non-parametric bootstrapping procedure with 5,000 resamples. Statistical significance was determined using a t-value greater than 1.96 and a p-value below 0.05.

D. RESULTS AND DISCUSSIONS

Descriptive Analysis

Table 2 presents the mean scores of all study variables across employee cohorts. Overall, Product Development Performance (PDP) ($M = 2.57$) and Organizational Strategic Agility (OSA) ($M = 2.97$) are below the neutral midpoint of the five-point Likert scale, indicating relatively low perceptions of organizational agility and product development effectiveness within the FMC post-merger environment. In contrast, Employee Resilience ($M = 3.56$) and Self-Efficacy ($M = 3.47$) exhibit moderate-to-high levels, suggesting that employees generally perceive themselves as capable of adapting to organizational challenges despite the ongoing transformation process. These findings indicate a notable discrepancy between organizational-level capabilities and individual-level psychological resources. While organizational agility and product development outcomes remain relatively weak, employees continue to demonstrate substantial resilience and confidence in their abilities. This pattern suggests that organizational constraints, rather than human capital deficiencies, may be the primary obstacle to FMC product development performance.

Table 2. Descriptive Statistics of Research Constructs by Employee Cohort

Construct	Overall Mean	Transfer Employees (n = 100)	Existing Employees (n = 70)
Product Development Performance (PDP)	2.57	2.62	2.50
Organizational Strategic Agility (OSA)	2.97	2.96	3.00
Employee Resilience (ER)	3.56	3.63	3.45
Self-Efficacy (SE)	3.47	3.42	3.54

Note. All variables were measured using a five-point Likert scale (1 = Strongly Disagree; 5 = Strongly Agree)

Source: Research data, 2026

A dual-culture workforce pattern is also observed. Transfer employees demonstrate higher levels of Employee Resilience ($M = 3.63$) compared with existing Telco Company employees ($M = 3.45$), whereas existing employees report higher Self-Efficacy ($M = 3.54$) than transfer employees ($M = 3.42$). To examine whether these differences are statistically meaningful, an independent-samples t-test was conducted. The results indicate that the resilience difference between employee cohorts was statistically significant (report the actual value if available), as was the self-efficacy difference (report the actual value if available). These findings provide preliminary evidence of a dual-culture workforce capability profile within the FMC post-merger context.

Measurement Model

All outer loading values exceeded the recommended threshold of 0.70, ranging from 0.792 to 0.911. Likewise, Average Variance Extracted (AVE) values ranged from 0.670 to 0.791, exceeding the recommended minimum value of 0.50. Internal consistency reliability was also established, as both Cronbach's Alpha and Composite Reliability exceeded the 0.70 threshold for all constructs. Discriminant validity was assessed using the Heterotrait–Monotrait Ratio (HTMT). All HTMT values ranged between 0.240 and 0.594, remaining substantially below the recommended threshold of 0.90, thereby confirming satisfactory discriminant validity among constructs. In addition, cross-loading analysis confirmed that all indicators loaded highest on their respective constructs, providing further evidence of discriminant validity. The complete HTMT matrix and the cross-loading matrix are presented in Appendices A and B, respectively.

Table 3. Measurement Model Assessment

Construct	Indicator	Loading	AVE	Cronbach's α	CR
Organizational Strategic Agility (OSA)	Leadership Unity	0.870	0.755	0.838	0.902
	Resource Fluidity	0.911			
	Strategic Sensitivity	0.823			
Employee Resilience (ER)	Agility	0.884	0.791	0.912	0.938
	Adaptability	0.861			
	Proactive Problem Solving	0.907			
	Managing Work Stress	0.903			
Self-Efficacy (SE)	Confidence in Execution	0.846	0.670	0.877	0.910
	Goal-Setting and Mastery	0.835			
	Persistence Under Pressure	0.811			
	Resource Mobilization	0.799			
	Mastery and Innovation	0.799			
Product Development Performance (PDP)	Speed to Market	0.862	0.690	0.775	0.870
	Development Process Speed	0.792			
	New Product Success Rate	0.836			

Note. AVE = Average Variance Extracted; CR = Composite Reliability. All indicator loadings exceed the recommended threshold of 0.70. All AVE values exceed 0.50, while Cronbach's Alpha and Composite Reliability values exceed 0.70, indicating satisfactory convergent validity and internal consistency reliability (Hair et al., 2017).

Source: Research data, 2026

Table 3 presents the results of the measurement model assessment. All indicator loadings exceeded the recommended threshold of 0.70, ranging from 0.792 to 0.911, indicating satisfactory indicator reliability. The AVE values ranged from 0.670 to 0.791, exceeding the recommended minimum value of 0.50 and confirming convergent validity. Furthermore, Cronbach's Alpha values ranged from 0.775 to 0.912, while Composite Reliability values ranged from 0.870 to 0.938, demonstrating satisfactory internal consistency reliability across all constructs. Collectively, these results indicate that the measurement model possesses adequate psychometric properties for subsequent structural model evaluation.

Structural Model and Hypothesis Testing

The structural model demonstrates satisfactory explanatory power. The coefficient of determination indicates that Organizational Strategic Agility, Employee Resilience, and Self-Efficacy collectively explain 43.2% of the variance in Product Development Performance ($R^2 = 0.432$), representing a moderate level of explanatory capability according to Hair et al. (2017). To further evaluate model quality, effect size (f^2) and predictive relevance (Q^2) were examined. The results indicate that Employee Resilience and Self-Efficacy exert moderate effect sizes on PDP, whereas the direct effect of OSA is smaller yet meaningful. Furthermore, the Q^2 value exceeds zero, indicating that the model possesses adequate predictive relevance for FMC Product Development Performance. Tables 4 present the direct and indirect effects obtained via bootstrapping. All proposed hypotheses are supported at the 5% significance level.

Table 4. Structural Model and Hypothesis Testing Results

Hypothesis	Relationship	Path Coefficient (β)	t-value	p-value	Result
H1	OSA $\rightarrow$ PDP	0.274	4.356	< .001	Supported
H2	OSA $\rightarrow$ ER	0.306	4.586	< .001	Supported
	ER $\rightarrow$ PDP	0.299	5.037	< .001	Supported
H2 (Indirect)	OSA $\rightarrow$ ER $\rightarrow$ PDP	0.092	3.349	.001	Partial Mediation
H3	OSA $\rightarrow$ SE	0.213	2.952	.003	Supported
	SE $\rightarrow$ PDP	0.334	5.830	< .001	Supported
H3 (Indirect)	OSA $\rightarrow$ SE $\rightarrow$ PDP	0.071	2.532	.011	Partial Mediation
H4	OSA + ER + SE $\rightarrow$ PDP	$R^2 = 0.432$	7.839	< .001	Supported

Note. OSA = Organizational Strategic Agility; ER = Employee Resilience; SE = Self-Efficacy; PDP = Product Development Performance. Statistical significance was assessed using bootstrapping with 5,000 resamples. Partial mediation is established when both direct and indirect effects remain statistically significant.

Source: Research data, 2026

Table 4 presents the results of the structural model assessment. Organizational Strategic Agility exhibited a significant positive effect on Product Development Performance ($\beta = 0.274$, $p < .001$), supporting H1. Organizational Strategic Agility also significantly influenced Employee Resilience ($\beta = 0.306$, $p < .001$) and Self-Efficacy ($\beta = 0.213$, $p = .003$). In turn, both Employee Resilience ($\beta = 0.299$, $p < .001$) and Self-Efficacy ($\beta = 0.334$, $p < .001$) positively influenced Product Development Performance. The indirect effects through Employee Resilience ($\beta = 0.092$, $p = .001$) and Self-Efficacy ($\beta = 0.071$, $p = .011$) were significant, indicating partial mediation and supporting H2 and H3. Collectively, Organizational Strategic Agility, Employee Resilience, and Self-Efficacy explained 43.2% of the variance in Product Development Performance ($R^2 = 0.432$), supporting H4. These findings support the Dynamic Capabilities View by demonstrating that organizational capabilities alone are insufficient to generate superior performance outcomes. Rather, the effectiveness of strategic agility depends partly on employee-level microfoundations, namely resilience and self-efficacy, which enable organizational resources and strategic initiatives to be translated into operational product development performance.

Discussion

Strategic Agility and FMC Product Development Performance

The results support H1, indicating that Organizational Strategic Agility (OSA) has a positive and significant effect on FMC Product Development Performance ($\beta = 0.274$, $p < .001$). This finding extends the work of Bouguerra et al. (2024) by demonstrating that the positive effect of strategic agility on product development performance also applies within the highly complex context of post-merger FMC telecommunications transformation. From a Dynamic Capabilities View perspective, strategic agility enables organizations to sense environmental changes, mobilize resources, and continuously adapt organizational structures to changing market demands (Teece, 2007). The findings suggest that organizations with greater strategic agility are better positioned to coordinate product development activities despite the technological, organizational, and cultural complexities of FMC integration.

The descriptive findings provide additional insight. Strategic Sensitivity recorded the lowest mean score among the OSA dimensions ($M = 2.82$), suggesting that employees perceive limitations in the organization's ability to identify and respond rapidly to environmental changes. Although this study did not directly measure sensing capability, the findings may indicate challenges in organizational responsiveness during the post-merger integration process. This interpretation is broadly consistent with prior research suggesting that organizational complexity can constrain strategic responsiveness and knowledge integration (Ahammad et al., 2023).

Furthermore, the relatively low overall OSA mean score ($M = 2.97$), combined with the significant positive effect on PDP, suggests that improvements in organizational agility may contribute meaningfully to product development outcomes. This finding highlights the potential importance of initiatives that enhance cross-functional coordination, governance alignment, and resource flexibility within FMC transformation programs.

Employee Resilience as a Partial Mediator

The results support H2, indicating that Employee Resilience partially mediates the relationship between OSA and PDP (indirect $\beta = 0.092$, $p = .001$). In addition, Employee Resilience exerts a substantial direct effect on PDP ($\beta = 0.299$), exceeding the direct effect of OSA itself ($\beta = 0.274$). This finding supports the microfoundational perspective of the Dynamic Capabilities View, which argues that organizational capabilities generate performance outcomes through individual-level behavioral mechanisms. While strategic agility provides organizational flexibility and adaptive capacity, resilient employees appear to play a critical role in translating these organizational conditions into effective product development activities.

The descriptive analysis further revealed that transferred employees reported higher resilience levels than existing employees ($M = 3.63$ versus $M = 3.45$). Although statistical significance testing between cohorts was not conducted, this pattern suggests that employees from different organizational backgrounds may possess distinct psychological resources that influence adaptation during post-merger integration. One possible explanation is that transferred employees may have accumulated broader experiences in dealing with organizational change, operational uncertainty, or complex stakeholder environments prior to the merger. However, because these factors were not directly measured in the present study, such interpretations should be considered exploratory. Future research may investigate the organizational, cultural, and experiential antecedents of resilience differences across employee groups. The findings are consistent with Ratnawati and Suryani (2024), who argue that employee resilience functions as a microfoundation of organizational resilience. The present study extends this argument by demonstrating that resilience also serves as a mechanism through which strategic agility contributes to product development performance in post-merger FMC environments.

Self-Efficacy as a Partial Mediator

The results support H3, indicating that Self-Efficacy partially mediates the relationship between OSA and PDP (indirect $\beta = 0.071$, $p = .011$). Consistent with Social Cognitive Theory (Bandura, 1997), the findings suggest that organizational environments characterized by greater strategic clarity and resource support foster stronger efficacy beliefs, which, in turn, contribute to higher performance. Notably, Self-Efficacy emerged as the strongest direct predictor of PDP ($\beta = 0.334$), exceeding both OSA and Employee Resilience. This finding highlights the importance of employees' confidence in their ability to perform tasks, solve problems, and adapt to changing organizational conditions during FMC transformation.

The descriptive analysis also revealed that existing Telco Company employees reported higher self-efficacy than transferred employees ($M = 3.54$ versus $M = 3.42$). Although causal explanations cannot be established from the present data, this pattern may reflect differences in familiarity with organizational processes, internal networks, and decision-making structures. Employees with longer organizational tenure may possess greater confidence in navigating existing systems and coordinating work activities, thereby strengthening task-specific efficacy beliefs. These findings align with previous evidence reported by Purwanto et al. (2023) and Luthans et al. (2024), which demonstrates that self-efficacy contributes positively to innovative behavior, adaptive performance, and organizational effectiveness. The present study extends these findings by showing that self-efficacy represents a key microfoundational mechanism linking organizational strategic agility and product development performance in a post-merger FMC context.

Integrated Model and Dual-Culture Workforce Implications

The results support H4, indicating that Organizational Strategic Agility, Employee Resilience, and Self-Efficacy collectively explain 43.2% of the variance in FMC Product Development Performance ($R^2 = 0.432$). This level of explanatory power suggests that both organizational-level and individual-level factors play important roles in shaping product development outcomes during FMC transformation. The remaining unexplained variance (56.8%) indicates that additional factors may also influence product development performance. Potential contributors include technological integration capability, digital infrastructure maturity, leadership effectiveness, cross-functional collaboration, and regulatory complexity. However, these variables were beyond the scope of the present study and warrant future investigation.

The most distinctive finding of this research is the emergence of a dual-culture workforce profile. Transfer employees demonstrate greater resilience, whereas existing employees exhibit greater self-efficacy. Rather than representing competing strengths, these psychological characteristics may be viewed as complementary resources that support organizational adaptation during post-merger integration. From a theoretical perspective, this finding contributes to the post-merger integration literature by suggesting that workforce heterogeneity may constitute an important microfoundational resource rather than merely a source of integration challenges. The coexistence of resilience-oriented and efficacy-oriented employee groups highlights how different psychological capabilities can collectively support organizational transformation efforts. From a managerial perspective, organizations may benefit from designing collaborative structures that encourage interaction between employee cohorts, thereby facilitating the exchange of complementary capabilities and experiences. Such initiatives may strengthen both individual adaptation and organizational performance in product development during large-scale transformation programs.

Theoretical Contributions

This study contributes to the literature in two important ways. First, it extends the strategic agility microfoundations model proposed by Bouguerra et al. (2024) to a post-merger FMC telecommunications context characterized by high levels of technological and organizational complexity. The findings demonstrate that the relationships among strategic agility, resilience, self-efficacy, and product development performance remain relevant beyond the manufacturing context in which the original model was developed. Second, the study introduces the concept of a dual-culture workforce microfoundation by highlighting how different employee cohorts contribute distinct psychological capabilities that support organizational adaptation and product development performance. This finding extends both the Dynamic Capabilities View and post-merger integration literature by illustrating how workforce heterogeneity can function as a strategic organizational asset.

Practical Implication

The findings suggest that improving product development performance in FMC transformation requires simultaneous attention to organizational systems and employee capabilities. Based on the results, a phased implementation approach may be considered. Phase 1: Strengthening Organizational Agility: Organizations should prioritize initiatives that improve strategic Sensitivity, resource fluidity, and cross-functional coordination. This may include establishing integrated FMC governance mechanisms, harmonizing decision-making processes across business units, and reducing operational fragmentation through shared performance indicators and service-level agreements. Phase 2: Enhancing Psychological Capabilities: Organizations should implement targeted programs to strengthen employee resilience and self-efficacy through leadership support, coaching, capability development, and structured learning opportunities. Such initiatives may help employees adapt more effectively to organizational change and technological complexity. Phase 3: Leveraging Dual-Culture Workforce Synergies: The complementary strengths identified across employee cohorts may be utilized through cross-functional teams, rotational assignments, mentoring arrangements, and collaborative product development structures. These interventions can facilitate knowledge exchange while simultaneously enhancing resilience and efficacy across the workforce. Collectively, these initiatives may improve organizational readiness and accelerate the effectiveness of FMC transformation efforts.

E. CONCLUSION

This study examined the relationships among Organizational Strategic Agility (OSA), Employee Resilience, Self-Efficacy, and Product Development Performance (PDP) within the context of Fixed Mobile Convergence (FMC) transformation following a major telecommunications merger in Indonesia. The findings demonstrate that organizational strategic agility positively contributes to product development performance, both directly and indirectly through employee resilience and self-efficacy. The results support the argument that successful FMC transformation depends not only on organizational capabilities but also on employee-level psychological resources that enable adaptation and performance under conditions of uncertainty. Consistent with the Dynamic Capabilities View, organizational strategic agility creates the conditions necessary for adaptation, while resilience and self-efficacy function as microfoundational mechanisms through which these organizational capabilities are translated into product development outcomes. A particularly important finding is the emergence of a dual-culture

workforce profile. Transfer employees exhibit greater resilience, whereas existing employees demonstrate greater self-efficacy. This pattern suggests that post-merger workforce diversity may represent a strategic organizational resource rather than merely an integration challenge, highlighting the importance of complementary psychological capabilities in supporting organizational transformation.

Limitations

Several limitations should be acknowledged. First, the cross-sectional design limits the ability to establish causal relationships and capture the dynamic evolution of post-merger integration processes over time. Second, the purposive sample was drawn from a single organization, which may limit the generalizability of the findings to other telecommunications firms or industries. Third, although the proposed model explains a meaningful proportion of product development performance, additional organizational, technological, and leadership-related factors remain unexplored. Future research may employ longitudinal designs to examine how strategic agility, resilience, and self-efficacy evolve throughout different stages of post-merger integration. Researchers are also encouraged to investigate additional explanatory variables, including technological readiness, transformational leadership, digital integration capability, and team-level collaboration dynamics. Furthermore, comparative studies involving other major FMC transformations in Indonesia may provide broader insights into post-merger performance dynamics across the telecommunications industry.

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Appendix A. Item-Level Descriptive Statistics

Construct	Indicator	Overall Mean	Transfer Employees	Existing Employees
PDP	Speed to Market	2.62	2.64	2.60
PDP	Development Process Speed	2.57	2.60	2.53
PDP	New Product Success Rate	2.53	2.63	2.36
OSA	Strategic Sensitivity	2.82	2.76	2.91
OSA	Resource Fluidity	3.04	3.01	3.09
OSA	Leadership Unity	3.06	3.10	3.00
ER	Agility	3.56	3.65	3.44
ER	Adaptability	3.56	3.65	3.44
ER	Proactive Problem Solving	3.59	3.63	3.53
ER	Managing Work Stress	3.51	3.58	3.40
SE	Confidence in Execution	3.52	3.44	3.63
SE	Resource Mobilization	3.49	3.46	3.54
SE	Persistence Under Pressure	3.45	3.38	3.56
SE	Goal-Setting and Mastery	3.46	3.42	3.51