



Strategic Orientation, Dynamic Capabilities, and Business Model Innovation: The Emergent Role of Top Management Support

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Abstract

Background: As connectivity becomes commoditized amid over-the-top (OTT) competition and stagnant average revenue per user (ARPU), business model innovation, rather than network expansion, has become a primary determinant of incumbent telecommunications operators' continued relevance.

Objective: This study examines how strategic orientation translates into business model innovation (BMI) through dynamic capabilities (DC) and under what conditions top management support (TMS) influences this relationship among incumbent telecommunications firms in Indonesia.

Methods: This study tests direct and DC-mediated effects of SO on BMI, with TMS as a potential boundary condition moderating the DC–BMI relationship. Analysis uses two-stage partial least squares structural equation modeling (PLS-SEM) applied to survey data from 130 executive respondents.

Results: SO positively influences DC ($\beta = 0.610, p < .001$) and exerts both a significant direct effect on BMI ($\beta = 0.377, p < .001$) and a significant indirect effect through DC ($\beta = 0.125, p = .025$), indicating partial rather than full mediation. TMS does not significantly moderate the DC–BMI relationship ($p = .313$) but emerges as a significant direct predictor of BMI ($\beta = 0.324, p = .001$), with an effect larger than that of DC itself. Eliminating the reconfiguring dimension of DC on discriminant validity grounds left sensing and seizing as the final indicators of DC.

Conclusion: Findings suggest a shift in the interpretation of TMS's role, from a boundary condition consistent with upper echelons theory toward a direct antecedent consistent with dynamic managerial capabilities theory.

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INTRODUCTION

To the best of the authors' knowledge, no prior study has tested an integrated moderated mediation model combining strategic orientation, dynamic capabilities, business model innovation, and top management support within a single structural model in an emerging-market telecommunications setting. A systematic search of the Scopus and Web of Science databases covering 2015–2026, using Boolean combinations of these four constructs and the term “telecommunications,” identified no study testing all four constructs within a single structural model, thereby highlighting the research gap addressed by this study. This gap provides the central motivation for the present study. It matters because these four constructs are typically

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examined in isolation or in pairs, leaving unresolved the practical question that managers face: through which mechanisms, and under what conditions, does strategic intent translate into business model change?

The empirical urgency is clear. Global telecommunications service revenue is projected to grow at a compound annual growth rate (CAGR) of only 2.8% between 2024 and 2029, a trajectory that PwC (2026) characterizes as steady but unremarkable. This projection is consistent with (Intelligence, 2025), which estimates a CAGR of 2.5%–3.1% over the same period, even as network usage continues to accelerate far more rapidly than the revenue it generates. In Indonesia, these global pressures are compounded by extreme market saturation, declining average revenue per user (ARPU), and the rapid emergence of cloud-enabled, digital-native competitors (Montasser et al., 2023). Department, (2025) reports that Indonesian mobile ARPU declined by 4.7% year over year in 2024, underscoring the revenue compression faced by incumbent operators. Under these conditions, incremental efficiency gains are no longer sufficient; incumbents must pursue business model innovation (BMI) that extends beyond connectivity-driven value creation (Paul et al., 2024; Teece, 2018; Verhoef et al., 2021).

Strategic management scholarship offers three constructs commonly invoked to explain such transformation: strategic orientation (SO), which has recently been examined empirically in emerging-market small and medium-sized enterprise (SME) contexts (Larabi, 2026); dynamic capabilities (DC) Teece et al. (1997); and business model innovation (BMI), which represents the transformation outcome (Saebi et al., 2017). A fourth construct, top management support (TMS), is examined here as a potential boundary condition in this transformation process. TMS is conceptually distinct from Upper Echelons Theory's (UET) account of top management team (TMT) composition (Hambrick & Mason, 1984; Roberson et al., 2024). The two literatures are connected in this study only through an explicit secondary inference (Section 2.3), rather than through an assumed theoretical equivalence. Whether TMS functions as a moderating boundary condition, consistent with a UET-informed interpretation, or as a direct antecedent incorporated into the capability-building process, consistent with a Dynamic Managerial Capabilities (DMC) perspective, remains an open empirical question rather than a settled premise. This distinction is important for interpreting the results presented below.

Four gaps motivate this research design. First, the functional role of TMS in the capability-driven transformation pathway remains empirically unresolved. Recent evidence from Indonesia suggests that leadership influences digital BMI indirectly through capability development rather than serving as an independent antecedent or moderator (Montasser et al., 2023), raising questions about the conventionally assumed moderating role of TMS. Second, the mediation mechanism through which SO translates into BMI remains incompletely specified, with the relative magnitudes of direct and DC-mediated effects rarely examined through higher-order construct modeling and bootstrapped indirect-effect estimation in telecommunications contexts. Third, no prior study has integrated direct, mediating, and moderating effects within a single moderated mediation framework for telecommunications BMI. Fourth, the predominance of developed-economy contexts in BMI and dynamic capabilities research limits the generalizability of existing findings to regulated, capital-intensive service industries in emerging markets (Hoskisson et al., 2000; Peng, 2014; World Health Organization, 2025).

Accordingly, this study asks: How does strategic orientation translate into business model innovation through dynamic capabilities, and under what conditions—specifically, at what level of top management support—is this translation most effective among incumbent telecommunications firms in Indonesia?

Strategic orientation is a multidimensional construct encompassing market-oriented and entrepreneurial dimensions (Kohli & Jaworski, 1990; Lumpkin & Dess, 1996; Mathafena & Msimango-Galawe, 2023; Narver & Slater, 1990), rather than a single, unified trait. Dynamic capabilities theory, in turn, holds that a firm's competitive advantage rests on distinctive, identifiable processes rather than market position alone (Eisenhardt & Martin, 2000; Leemann & Kanbach, 2022; Teece et al., 1997). Teece (2007) and Bhardwaj et al. (2022) decomposed DC into three microfoundational clusters: sensing, seizing, and reconfiguring. This framework underlies the present study's theoretical conceptualization of DC, although, as reported in Section 4, the reconfiguring dimension was subsequently removed from the measurement model on discriminant validity grounds.

Empirical evidence supporting a positive SO–DC relationship comes from several recent studies. Raj et al. (2025) report that market orientation, entrepreneurial orientation, and supply chain integration shape firms' sensing, seizing, and reconfiguring capabilities, with market orientation specifically strengthening sensing capabilities. Correia, Teixeira, and Dias et al. (2022) independently find that dynamic capabilities mediate the relationship between market and entrepreneurial orientations and competitive advantage among Portuguese firms. (Larabi, 2026), studying Saudi SMEs, found that strategic orientation significantly predicts strategic renewal, a related construct grounded in dynamic capabilities theory (DCT), although it is not identical to DC. None of these three studies was conducted in the telecommunications industry or in Indonesia. Accordingly:

H1: Strategic orientation positively influences dynamic capabilities.

The operational definition of a business model adopted here follows Zott and Amit (2010) and Alcayaga and Hansen (2025), who conceptualize a business model as a system of interdependent activities through which value is created and captured. Despite two decades of scholarly attention, Foss and Saebi (2017) and Snihur and Markman (2023) review of 150 BMI articles concluded that the literature lacked cumulative empirical development concerning BMI antecedents. This finding motivates the treatment of BMI's antecedent structure as an open empirical question in the present study.

The direct SO → BMI relationship is supported less by studies specifically focused on BMI than by research on the fit between strategy and business models. Zott and Amit (2008) and Reyes-Gómez et al. (2025) found that business model choices and product-market strategy are complementary, implying that strategic orientation is already partially reflected in business model design. Saebi et al. (2017), however, found that this relationship depends on perceived external threats rather than being uniform across contexts. This finding suggests that the direct path may be weaker than, or comparable in magnitude to, the indirect path through DC—a comparison that H2 and H4 are designed to examine. Accordingly:

H2: Strategic orientation positively and directly influences business model innovation.

Direct empirical support for a DC → BMI relationship comes from Wijayanti et al. (2024) and Dias et al. (2022), who report positive associations between DC and BMI in Indonesian hotels and Brazilian logistics startups, respectively. Further support comes from Hock-Doepgen et al. (2025), who found that external knowledge management capabilities, described as a microfoundation of sensing, positively influence BMI. Accordingly:

H3: Dynamic capabilities positively influence business model innovation.

Whether DC serves as a complete conduit or a partial channel in the SO–BMI relationship remains unresolved. Larabi (2026) found that strategic renewal partially, rather than fully, mediates the relationship between SO and firm performance, with SO retaining a direct effect. A parallel mediation argument appears in (Al-Edenat, 2026; Al-Omoush, 2021), in which organizational learning and agility significantly mediated the effect of TMS on e-business entrepreneurship, an outcome adjacent to BMI. Neither study, however, directly tests the SO → DC → BMI pathway. The present study therefore treats the type of mediation—partial or full—as an empirical question rather than a foregone conclusion. Accordingly:

H4: Dynamic capabilities mediate the relationship between strategic orientation and business model innovation.

TMS, operationalized in accordance with Al-Omoush (2021) and Al-Edenat (2026) as the degree to which top management prioritizes, allocates resources to, and champions a given initiative, is defined here as a construct distinct from both UET and general leadership style. It captures the intensity and visibility of senior executives' commitment to a specific strategic initiative, rather than their demographic composition, as emphasized in UET, or their broad behavioral tendencies, as examined in transformational leadership research. This distinction must be maintained carefully. Hambrick and Mason (1984) and Roberson et al. (2024) proposed that organizational outcomes are partially predictable from managerial background characteristics—a claim concerning TMT composition, not the degree to which a management team supports a specific initiative. Presenting UET as though it directly defines TMS would overstate the connection between these two literatures. A more limited, secondary argument treats UET as a distal rationale for TMS: if executives act on their interpretations of the situations

they face (Nurmayanti et al., 2022), a management team's decision to support and resource an initiative can be interpreted as one behavioral expression of that interpretive process. This is an inference, not an established empirical finding.

Whether TMS amplifies, attenuates, or operates independently of the DC–BMI relationship remains empirically contested. Wilden et al. (2013) and Mishra and Anning-Dorson (2022), and Wilden and Gudergan (2017) demonstrated that the relationship between DC and firm performance is moderated by organizational structure, providing a structural precedent for moderation as a general analytical approach. (Mishra & Anning-Dorson, 2022; Wilden & Gudergan, 2017), testing a structurally related model in which DC served as a moderator, found that the positive effect of orientation on capability diminished as firms deployed dynamic capabilities more extensively. This finding provides evidence that capability-related moderators do not uniformly amplify strategy-to-outcome relationships and may instead substitute for other influences. Montasser et al. (2023), studying Indonesian incumbent firms specifically, found no significant direct or moderating effect of a comparable leadership construct on digital BMI; its effect operated only indirectly through capability development. This contradiction within the same national and industry context examined here is why H5 is framed as a nondirectional, open empirical test rather than as an assumed positive moderation effect. Accordingly:

H5: Top management support moderates the relationship between dynamic capabilities and business model innovation.

No study identified in this review tests a complete moderated mediation model integrating SO, DC, BMI, and TMS within a single structural model in either a telecommunications or Indonesian setting. This constitutes the research gap most directly addressed by the present study. Accordingly:

H6: The indirect effect of strategic orientation on business model innovation through dynamic capabilities is conditional on the level of top management support.

Figure 1 synthesizes H1–H6 into a single conceptual model.

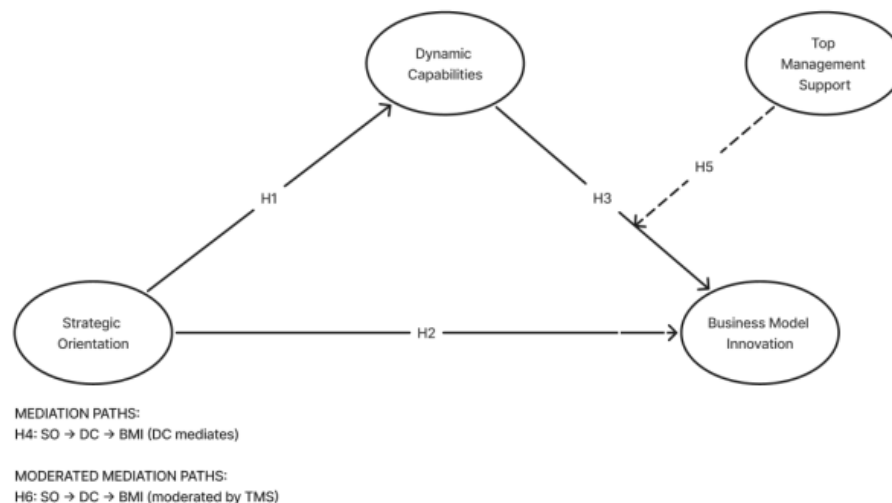


Figure 1. Conceptual Research Model
Source: Authors' elaboration

METHOD

This study employed a quantitative, cross-sectional, explanatory survey design. The unit of analysis was the organization, whereas the unit of observation was the individual executive respondent, who was considered a suitable informant based on their presumed knowledge of strategic decisions and capability-development initiatives (Henseler et al., 2009; Petter & Hadavi, 2023). The empirical setting was the Indonesian telecommunications industry, a late-maturity, over-the-top (OTT)-disrupted, regulated, and capital-intensive institutional environment that enabled an explicit examination of whether the hypothesized relationships held under conditions of institutional complexity. Respondents were drawn from Telkom Group/Telkomsel, Indosat Ooredoo Hutchison, and XLSmart, spanning five functional directorates.

Purposive sampling was employed, with inclusion criteria requiring respondents to (1)

work at one of the three named operators, (2) hold at least a managerial position, and (3) have at least five years of organizational tenure. The final sample comprised 130 executive respondents ($N = 130$), exceeding three established sample-size guidelines for partial least squares structural equation modeling (PLS-SEM): Hair Jr. et al. (2022) inverse square root method (minimum ≈ 95), Cohen (1988) and Sommet et al. (2023) power analysis for an effect size of $f^2 = 0.15$ (minimum ≈ 85), and the 10-times rule (minimum = 40, based on four predictors of BMI). Six respondents (4.6%) did not fully meet the inclusion criteria: four were affiliated with organizations outside the three named operators, and two had less than five years of organizational tenure. Given their small combined proportion, their inclusion was considered unlikely to materially affect the structural results. Nevertheless, this deviation was disclosed transparently, and a sensitivity analysis excluding these cases was recommended as a robustness check before the dataset was used in subsequent analyses.

Respondents were concentrated at the manager level or above (78.4%) and had 5–25 years of industry tenure (79.2%), supporting the rationale for purposive sampling based on informant competence. A critical limitation was that 90.0% of respondents were affiliated with Telkom Group/Telkomsel, resulting in substantial single-firm concentration. This concentration raised concerns beyond generalizability alone, as the observed relationships might have reflected Telkom-specific organizational culture, strategic orientation norms, or management support practices rather than industry-wide patterns. Accordingly, the findings should be interpreted as being most directly applicable to large, state-influenced incumbent operators. Cross-validation using data from competing operators, particularly Indosat Ooredoo Hutchison and XL Axiata, was necessary before broader claims could be substantiated (see Section 4.10 for a detailed discussion of this limitation).

All constructs were measured using multi-item scales adapted from established literature and administered on a seven-point Likert scale. Strategic orientation (SO) was specified as a reflective–reflective higher-order construct comprising market orientation, customer orientation, and entrepreneurial orientation, with three items for each dimension, adapted from Larabi (2026) integrated operationalization. Dynamic capabilities (DC) were initially specified through three microfoundational dimensions following Teece (2007) and Bhardwaj et al. (2022): sensing (three items) and seizing (five items), adapted from Hock-Doeppen et al. (2025), and reconfiguring (four items), adapted from (Mishra & Anning-Dorson, 2022; Wilden & Gudergan, 2017). All three dimensions were included in the discriminant validity assessment described below; their ultimate retention was determined empirically and is reported in Section 4. Business model innovation (BMI) was specified as a reflective–reflective higher-order construct comprising customer value proposition (five items) and profit formula (four items), both adapted from Hock-Doeppen et al. (2025). Top management support (TMS) was measured as a single first-order reflective construct using five indicators adapted from (Al-Omoush, 2021; Al-Edenat, 2026).

Data were analyzed using SmartPLS 4 in accordance with established PLS-SEM procedures (Hair Jr. et al., 2022), with bootstrap stability assessed using 5,000 resamples. SO, DC, and BMI, which were specified as reflective–reflective higher-order constructs, were estimated using the disjoint two-stage approach (Becker et al., 2012, 2023; Sarstedt et al., 2019). This approach was preferred over the repeated-indicator method because the latter can artificially inflate interconstruct correlations when multiple higher-order constructs and an interaction term are estimated jointly. In Stage 1, latent variable scores for the first-order constructs were obtained. In Stage 2, these scores served as indicators of the corresponding second-order constructs, and the $DC \times TMS$ interaction term was incorporated to test the moderating effect of TMS.

The measurement model was evaluated in terms of indicator reliability (outer loadings ≥ 0.708), internal consistency reliability (Cronbach's alpha, ρ_A , and composite reliability ≥ 0.70), convergent validity (average variance extracted [AVE] ≥ 0.50), and discriminant validity (heterotrait–monotrait ratio [HTMT] < 0.85 or 0.90 , depending on the adopted criterion). Bootstrap confidence intervals excluding 1.00 were used as a stricter corroborating test of discriminant validity, while the Fornell–Larcker criterion was reported as supplementary evidence. The structural model was evaluated using inner variance inflation factors (VIFs < 5), bootstrapped path significance tests, the coefficient of determination (R^2), effect sizes (f^2), and predictive relevance. Mediation (H4) was assessed using Zhao et al. (2010) and Cavique and

Rosário, (2024) typology, with the indirect effect evaluated through percentile bootstrapping. Moderation (H5) was tested using the two-stage approach (Henseler & Chin, 2010; Magno et al., 2024), and the interaction hypothesis was treated as nondirectional in light of the conflicting evidence reviewed in Section 2.3. Moderated mediation (H6) was tested using the index of moderated mediation (Hayes, 2015; Ng et al., 2024). The direct path from TMS to BMI was not specified as a separate hypothesis among H1–H6; however, it was included as the corresponding main-effect term accompanying the DC × TMS interaction term in the moderation model, consistent with standard practice for testing interaction effects (Henseler & Chin, 2010; Magno et al., 2024). Its coefficient was therefore reported and interpreted as an unhypothesized but methodologically anticipated result rather than as a confirmatory test.

RESULT AND DISCUSSION

Results

Measurement Model

An initial assessment of discriminant validity among the first-order dimensions revealed HTMT values exceeding 0.90 between several Strategic Orientation and Dynamic Capabilities dimensions, most notably those involving the Reconfiguring dimension. A diagnostic review traced this overlap specifically to Reconfiguring: its four items, adapted from Wilden and Gudergan (2017) and Mishra and Anning-Dorson, (2022) scale, proved conceptually and empirically adjacent to the entrepreneurial-orientation items measuring a firm's proactive adaptation of its market posture. This finding is consistent with Wilden and Gudergan (2017) and Mishra and Anning-Dorson (2022) observation that dynamic capability and strategic orientation constructs may substitute for, rather than remain clearly distinct from, one another. Reconfiguring was not flagged for a reliability deficiency; its loading of 0.800 comfortably exceeded the acceptability threshold. Therefore, its removal represents a correction for discriminant validity rather than a quality-driven exclusion.

Following the elimination of Reconfiguring, Dynamic Capabilities was operationalized using only Sensing and Seizing. The HTMT value between Strategic Orientation and Dynamic Capabilities declined from 0.912 to 0.838, falling below the conventional threshold of 0.90, while all other construct pairs returned acceptable HTMT values (0.670–0.824). All four higher-order constructs (Table 1) achieved satisfactory composite reliability (0.860–0.936) and average variance extracted (AVE) values (0.672–0.880).

Table 1

Reliability and Convergent Validity of Higher-Order Constructs

Construct	Cronbach's Alpha	rhoA	CR	AVE	Conclusion
Business Model Innovation	0.863	0.866	0.936	0.880	Reliable/Valid
Dynamic Capabilities	0.707	0.710	0.872	0.773	Reliable/Valid
Strategic Orientation	0.753	0.756	0.860	0.672	Reliable/Valid
Top Management Support	0.906	0.913	0.930	0.727	Reliable/Valid

Source: Data processed by authors (2026), based on SmartPLS 4 output.

A more stringent assessment using bootstrap confidence intervals for the HTMT estimates Henseler et al. (2015) and Rönkkö and Cho (2022) qualifies this result. The 90% bootstrap confidence interval (CI) for the HTMT value between Strategic Orientation and Dynamic Capabilities is [0.526, 1.073], which includes 1.00, even though the point estimate (0.838) falls below the conventional threshold. All other construct pairs pass both the point-estimate and confidence-interval tests. This result is reported explicitly rather than relying solely on the point estimate because it indicates that the empirical separability of Strategic Orientation and Dynamic Capabilities in this sample remains only partially established, even after Reconfiguring's removal. This qualification is carried through to the Discussion (Section 4.8) and is treated as the study's most consequential limitation.

Table 2

Discriminant Validity (HTMT) of Higher-Order Constructs — Final Model (AG Stage 2, Post-Reconfiguring Elimination)

Construct Pair	HTMT	Conclusion
DC ↔ BMI	0.734	Valid
SO ↔ BMI	0.824	Valid
SO ↔ DC	0.838	Valid
TMS ↔ BMI	0.700	Valid
TMS ↔ DC	0.670	Valid
TMS ↔ SO	0.738	Valid

Notes: All values below the conservative 0.85 threshold except SO↔DC (0.838), which clears the more permissive 0.90 threshold but not the stricter bootstrap confidence-interval test (see Section 4.1 and 4.8).

Source: Data processed by authors (2026), based on SmartPLS 4 output.

Harman's single-factor test, conducted using unrotated principal component analysis (PCA) on all 35 first-order indicators, showed that the first unrotated factor accounted for 50.5% of the total variance, exceeding the conventional 50% threshold often used to flag potential common method bias (CMB) concerns (Podsakoff et al., 2003; Rozenkowska, 2023). This finding is treated as a marginal concern that warrants transparent disclosure rather than as either a disqualifying flaw or evidence that the data are free from CMB. Five components with eigenvalues greater than 1.0 emerged, rather than a single dominant factor. In addition, procedural remedies incorporated into the questionnaire design (respondent anonymity, psychological separation of predictor and criterion sections, and partial item randomization) provide additional, although not sufficient, protection against CMB.

Structural Model

Inner variance inflation factor (VIF) values ranged from 1.000 to 2.028, well below the threshold of 5, indicating no problematic multicollinearity among the predictors. Strategic Orientation, Dynamic Capabilities, and Top Management Support jointly explained 54.5% of the variance in Business Model Innovation ($R^2 = 0.545$; adjusted $R^2 = 0.531$), indicating moderate explanatory power. Strategic Orientation alone explained 37.3% of the variance in Dynamic Capabilities ($R^2 = 0.373$; adjusted $R^2 = 0.368$). This comparatively limited explanatory power indicates that most of the variance in DC is attributable to factors outside the present model, a limitation discussed explicitly in Section 4.4.

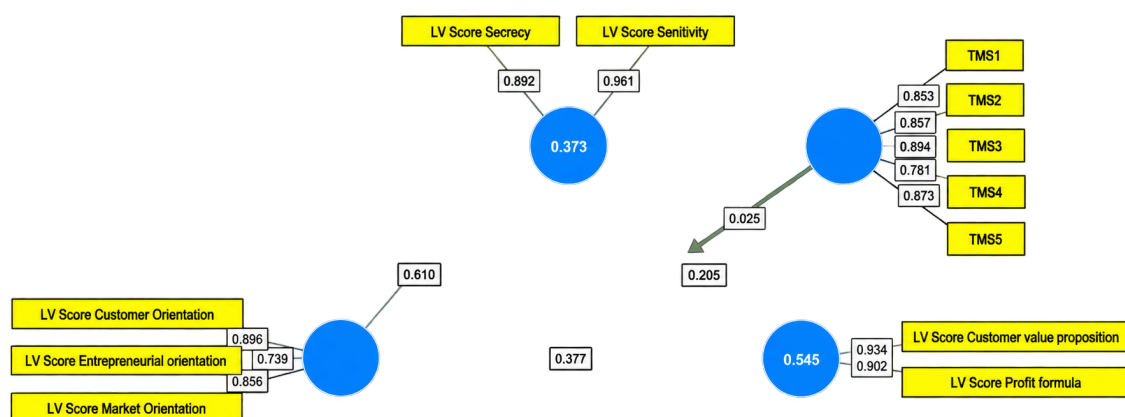


Figure 2. Structural Model with Path Coefficients and R^2 (AG Stage 2, Final Specification)

Source: SmartPLS 4 algorithm output, authors' analysis (2026).

Out-of-sample predictive relevance was assessed using PLSpredict Shmueli et al. (2019) and Sharma et al. (2022) rather than the conventional blindfolding-based Q^2 procedure, which was not available for this analysis. All reported Q^2 predict values were positive at both the construct level (BMI = 0.482; DC = 0.452) and the indicator level (0.244–0.452). PLS-SEM outperformed the linear-model benchmark for three of the five indicators, supporting the classification of the model as having medium predictive power. This analysis was conducted using the three-dimensional DC specification before Reconfiguring was removed. Because Reconfiguring's predictive performance (Q^2 predict = 0.325) fell within the range of the retained indicators rather than at an extreme, and because its removal was motivated by discriminant-validity rather than predictive-performance concerns, these results are treated as informative for the final model. Nevertheless, the difference in model specification is disclosed as a limitation (Section 4.10).

Hypothesis Testing

Table 3 summarizes the structural path estimates. Strategic Orientation positively and significantly influenced Dynamic Capabilities ($\beta = 0.610$, $p < .001$, $f^2 = 0.594$, large), supporting H1. Strategic Orientation also had a significant positive direct effect on Business Model Innovation ($\beta = 0.377$, $p < .001$, $f^2 = 0.154$, medium), supporting H2. Dynamic Capabilities had a significant positive direct effect on Business Model Innovation ($\beta = 0.205$, $p = .009$, $f^2 = 0.052$, small), supporting H3.

Table 3

Structural Path Estimates

Path	β	t-value	p-value	f^2	Conclusion
H1: SO → DC	0.610	5.182	<.001	0.594 (large)	Supported
H2: SO → BMI (direct)	0.377	3.727	<.001	0.154 (medium)	Supported
H3: DC → BMI	0.205	2.355	.009	0.052 (small)	Supported
TMS → BMI (unhypothesized, main-effect term)	0.324	3.110	.001	0.125 (small)	Significant

Source: Data processed by authors (2026), based on SmartPLS 4 output.

The indirect effect of Strategic Orientation on Business Model Innovation through Dynamic Capabilities was significant (indirect effect = 0.125, $p = .025$). Because the direct SO → BMI path (H2) was also significant and had the same positive sign, the mediation is classified, following Zhao et al. (2010) and Cavique and Rosário (2024) typology, as partial (complementary) mediation rather than full mediation. H4 is therefore supported with this qualification: Dynamic Capabilities transmits part, but not all, of Strategic Orientation's influence on Business Model Innovation, with a substantial direct pathway remaining.

The interaction between Top Management Support and Dynamic Capabilities in predicting Business Model Innovation was not statistically significant (interaction coefficient = 0.025, $p = .313$, $f^2 = 0.007$, very small); therefore, H5 was not supported. The index of moderated mediation was likewise nonsignificant (index = 0.0154, $p = .579$, 95% CI [-0.0585, 0.0563]); therefore, H6 was not supported. At the same time, Top Management Support had a significant positive direct effect on Business Model Innovation ($\beta = 0.324$, $p = .001$, $f^2 = 0.125$, small), with an effect size larger than that of Dynamic Capabilities itself. Table 4 summarizes all six hypothesis tests.

Table 4

Summary of Hypothesis Testing Results

Hypothesis	Path/Relationship	Coefficient/ Index	p- value	Conclusion
H1	Strategic Orientation → Dynamic Capabilities	0.610	<.001	Supported
H2	Strategic Orientation → Business Model Innovation (direct)	0.377	<.001	Supported

Hypothesis	Path/Relationship	Coefficient/ Index	p-value	Conclusion
H3	Dynamic Capabilities → Business Model Innovation	0.205	.009	Supported
H4	Dynamic Capabilities mediates SO → BMI (indirect effect)	0.125	.025	Supported (partial/complementary mediation)
H5	Top Management Support moderates DC → BMI	0.025	.313	Not supported
H6	Index of Moderated Mediation (SO→DC→BMI, moderated by TMS)	0.0154	.579	Not supported

Source: Data processed by authors (2026), based on SmartPLS 4 output

Strategic Orientation as the Dominant, but Incomplete, Driver of Dynamic Capabilities

The significant, large effect of SO on DC (H1) provides evidence, in the Indonesian telecommunications context, consistent with findings previously reported among Portuguese firms Correia et al. (2021) and Saudi SMEs Raj et al. (2025). However, the comparatively low R^2 for DC (0.373) indicates that most of the variance in dynamic capabilities among these incumbent firms is attributable to factors outside Strategic Orientation, potentially including firm-specific routines, managerial tenure, or organizational learning history, none of which was modeled here. This is a substantive rather than merely cosmetic limitation: although SO is the strongest lever represented in this model, developing dynamic capabilities in this industry likely requires interventions beyond strategic-orientation development alone.

From Full to Partial Mediation: A Two-Channel Transformation Pathway

H4 is supported, but the mediation is partial (complementary) rather than full, representing a material departure from the framing anticipated at the outset of this study. The empirical pattern parallels Larabi (2026) finding that strategic renewal partially, rather than fully, mediates the relationship between SO and performance. Substantively, this indicates that strategically oriented Indonesian telecommunications incumbents convert strategic intent into business model change through two coexisting channels: a capability-building channel operating through Sensing and Seizing, and a direct channel that plausibly reflects more immediate strategic and structural adjustments that do not require the intervening development of dynamic capabilities. Complementary mediation of this kind generally strengthens, rather than undermines, the theoretical case for the mediator's relevance (Cavique & Rosário Ramos, 2024; Zhao et al., 2010), because DC carries a genuine and significant share of SO's influence even though it is not the sole conduit.

Top Management Support: From Boundary Condition to Direct Antecedent

Neither H5 nor H6 was supported, whereas TMS emerged as a significant direct predictor of BMI, with an effect size larger than that of DC's direct effect. This pattern speaks directly to the UET-versus-DMC tension framed in Section 2.3. Upper Echelons Theory (UET) Hambrick and Mason (1984) and Roberson et al. (2024); positions managerial characteristics and influence as factors shaping strategic outcomes, a framing that can accommodate a moderating role. The nonsignificant moderation and significant direct effect observed here instead align more closely with a Dynamic Managerial Capabilities (DMC) interpretation, under which top management's support for transformation initiatives functions as an input into organizational transformation rather than merely as a condition that amplifies or attenuates the effects of existing capabilities. This finding echoes Montasser et al. (2023) finding that transformational leadership's effect on digital BMI among Indonesian incumbents does not involve a significant direct or moderating role once capability-building is accounted for. In the present study, however, TMS itself, rather than DC, emerges as a significant direct predictor, suggesting that the specific leadership construct may determine the structural role it plays. Practically, this suggests that accelerating BMI in this

industry requires more than securing endorsement of capability-building already underway; direct top-management engagement should also be treated as a potential driver of transformation in its own right.

The Reconfiguring Dimension: An Unanticipated Discriminant-Validity Finding

A methodological finding with theoretical significance emerged during the assessment of the measurement model: Reconfiguring, one of Teece (2007) and Bhardwaj et al. (2022) three microfoundational dimensions of DC, was eliminated because it produced a discriminant-validity violation with Strategic Orientation (HTMT = 0.912), not because of a reliability deficiency (loading = 0.800). One interpretation, consistent with Wilden and Gudergan (2017) and Mishra and Anning-Dorson (2022) account of the entanglement between capability and orientation constructs, is that in this centralized, hierarchically structured industry, strategic reconfiguration decisions may be closely coupled with top-level strategic intent. Consequently, respondents may not have empirically distinguished a firm's strategic orientation toward renewal from its distinct operational capability to reconfigure assets in Teece (2007) and Bhardwaj et al. (2022) narrower sense. This interpretation is inferential rather than directly tested by the present quantitative design and warrants qualitative verification in future research.

The Unresolved SO-DC Boundary: This Study's Central Limitation

Even after Reconfiguring's removal, the bootstrap confidence interval for the HTMT value between Strategic Orientation and Dynamic Capabilities includes 1.00 [0.526, 1.073], although its point estimate (0.838) falls below the conventional threshold. This is treated as the study's most consequential limitation, rather than as a minor technical footnote. It means that Sensing and Seizing remain conceptually and empirically close to Strategic Orientation in this institutional setting and that the boundary between possessing a capability and being oriented toward developing one may be inherently harder to establish in centralized, hierarchical organizations than in the less hierarchical firms examined in much of the prior DC literature. Readers should interpret the H1 and H4 findings accordingly: the reported mediation is supported by the point estimates, but the underlying construct separation on which that mediation analytically depends has not been conclusively established.

Theoretical and Managerial Contributions

This study offers four contributions corresponding to the gaps identified in Section 1. First, it provides evidence from the telecommunications sector that TMS functions as a direct antecedent of BMI rather than as a moderating boundary condition. This finding emerges from an exploratory, unhypothesized main-effect path rather than a confirmatory test. The pattern is more consistent with a DMC than with a strict UET moderation framing (Gap 1), although confirmatory replication is necessary before it can be treated as established. Second, the study demonstrates that DC operates as a partial, complementary mediator of the SO-BMI relationship rather than as a complete conduit, indicating the existence of two coexisting transformation channels (Gap 2). Third, to the best of our knowledge, this is among the first studies to test a full moderated-mediation model combining SO, DC, BMI, and TMS in a telecommunications setting. The nonsignificant H6 is itself informative, suggesting that TMS operates independently of, rather than by conditioning, the mediation chain (Gap 3). Fourth, the study extends these research streams, previously examined primarily in developed economies or single-country service settings, to a regulated, capital-intensive, state-influenced emerging-market industry (Gap 4). It also offers a methodological caution regarding the empirical separability of Reconfiguring and Strategic Orientation in such settings.

For managers, three implications follow. First, because SO shows the strongest relationships with both DC and BMI, investments in market, customer, and entrepreneurial orientation are likely to produce the broadest downstream effects on business model transformation. Second, because TMS is a significant direct predictor of BMI rather than a mechanism that primarily amplifies existing capability-building, managers should not treat top-management endorsement solely as a supporting condition; direct, visible engagement and resource commitment are also associated with BMI outcomes. Third, because DC was empirically distinguished from SO only through Sensing and Seizing, capability-development investments

should focus specifically on market-sensing routines and opportunity-seizing processes.

Discussion

The findings of this study provide an integrated explanation of how Strategic Orientation is translated into Business Model Innovation within incumbent telecommunications firms in Indonesia. Rather than supporting a single sequential mechanism in which Strategic Orientation produces innovation only through the development of Dynamic Capabilities, the results reveal a more complex configuration. Strategic Orientation (SO) significantly strengthens Dynamic Capabilities (DC) while maintaining a significant direct relationship with Business Model Innovation (BMI). Dynamic Capabilities also contribute significantly to BMI, although their direct effect is comparatively smaller. Taken together, these relationships suggest that business model transformation in the telecommunications sector occurs through both a capability-mediated pathway and a more immediate strategic pathway.

This dual-path pattern is particularly relevant to incumbent telecommunications firms. Strategic Orientation in the present model encompasses customer, market, and entrepreneurial orientations. Thus, firms that systematically monitor customer needs, respond to market developments, and pursue entrepreneurial opportunities are better positioned to develop the sensing and seizing mechanisms necessary for transformation. The relatively strong SO → DC relationship ($\beta = 0.610$, $p < .001$) indicates that Strategic Orientation constitutes an important organizational foundation for developing Dynamic Capabilities. This finding is consistent with the theoretical proposition that strategic intent alone does not automatically create adaptive capabilities; rather, an orientation toward markets and opportunities provides a basis for firms to identify, interpret, and act on environmental changes.

Nevertheless, the R^2 value for Dynamic Capabilities was 0.373, indicating that Strategic Orientation accounted for only 37.3% of its variance. Consequently, a considerable proportion of the variance in Dynamic Capabilities remains attributable to factors outside the proposed model. In organizational terms, sensing and seizing capabilities may also depend on organizational learning, technological infrastructure, accumulated experience, managerial routines, resource availability, and internal coordination mechanisms. The findings therefore imply that strengthening market, customer, and entrepreneurial orientation is important but is unlikely to be sufficient on its own to build comprehensive Dynamic Capabilities.

The results further demonstrate that Strategic Orientation has a significant direct relationship with Business Model Innovation ($\beta = 0.377$, $p < .001$), alongside its indirect effect through Dynamic Capabilities. This finding indicates that strategically oriented firms may initiate business model changes without every transformation necessarily being preceded by a distinct capability-development process. In a highly competitive telecommunications environment, certain strategic responses may be implemented relatively directly, for example, through changes in customer value propositions, commercial arrangements, partnership models, or revenue mechanisms. Other forms of innovation, particularly those requiring the systematic identification and exploitation of emerging opportunities, are more likely to depend on the development of Dynamic Capabilities.

The significant indirect effect of Strategic Orientation on Business Model Innovation through Dynamic Capabilities ($\beta = 0.125$, $p = .025$) provides further evidence for this interpretation. Because both the direct and indirect effects remain statistically significant and point in the same direction, Dynamic Capabilities operate as a partial, or complementary, mediator rather than a complete mediator. Thus, Dynamic Capabilities constitute an important transmission mechanism but not the exclusive mechanism through which Strategic Orientation is translated into Business Model Innovation.

This partial mediation is theoretically meaningful because it suggests that Strategic Orientation and Dynamic Capabilities should not be regarded as interchangeable organizational resources. Strategic Orientation establishes a general direction for how an organization approaches markets, customers, and opportunities, whereas Dynamic Capabilities represent the organizational processes through which environmental signals are sensed and opportunities are seized. Both contribute to BMI, but they perform different functions within the transformation process. This interpretation is broadly consistent with dynamic capabilities theory, which

emphasizes the role of sensing and seizing in converting environmental changes into organizational responses while also recognizing that strategic choices can directly influence the configuration of a firm's business model.

An important finding concerns the role of Top Management Support (TMS). Contrary to the proposed moderation hypothesis, the interaction between TMS and Dynamic Capabilities was not statistically significant ($\beta = 0.025$, $p = .313$), and the index of moderated mediation was likewise nonsignificant (index = 0.0154, $p = .579$). These results indicate that the contribution of Dynamic Capabilities to BMI does not vary significantly with the level of Top Management Support in the observed sample. In other words, management support does not appear to strengthen or weaken the DC $\rightarrow$ BMI relationship in the manner originally proposed.

However, the absence of moderation should not be interpreted as evidence that senior management is unimportant. In fact, TMS demonstrated a significant direct relationship with Business Model Innovation ($\beta = 0.324$, $p = .001$). This finding changes the functional interpretation of top management's role. Rather than merely providing a favorable organizational condition under which existing Dynamic Capabilities become more effective, Top Management Support appears to operate as an independent organizational input into business model transformation.

Such a pattern is especially plausible in incumbent telecommunications organizations, where major business model decisions may require substantial financial commitments, cross-functional coordination, regulatory consideration, and approval from senior decision-makers. Top management can therefore contribute directly to transformation by allocating resources, legitimizing experimentation, prioritizing innovation initiatives, resolving internal resistance, and providing executive sponsorship. Under these circumstances, senior management involvement may influence BMI independently rather than simply amplifying the effectiveness of existing sensing and seizing capabilities.

This result also offers an important theoretical implication. The initial model considered TMS primarily as a boundary condition, consistent with a contingency-oriented interpretation of managerial influence. Yet the empirical pattern is more compatible with a Dynamic Managerial Capabilities perspective, in which managerial action itself constitutes a source of organizational transformation. The nonsignificant interaction, combined with the significant direct effect, suggests that senior management may participate directly in mobilizing and orchestrating organizational resources rather than merely determining whether organizational capabilities become effective. The manuscript therefore interprets TMS as shifting from a proposed boundary condition toward a direct antecedent of BMI.

At the broader structural level, Strategic Orientation, Dynamic Capabilities, and Top Management Support jointly explain 54.5% of the variance in Business Model Innovation ($R^2 = 0.545$; adjusted $R^2 = 0.531$). This indicates that the proposed model captures a meaningful proportion of the organizational factors associated with BMI while leaving substantial variance unexplained. The model therefore offers explanatory value without implying that these three constructs provide an exhaustive account of business model transformation.

The model also demonstrated positive out-of-sample predictive relevance, with reported Q^2 predict values of 0.482 for BMI and 0.452 for DC. The PLS-SEM predictions outperformed the linear-model benchmark for three of the five indicators. These results were interpreted in the manuscript as indicating medium predictive power. Nevertheless, this evidence should be interpreted cautiously because the PLSpredict analysis was conducted using the earlier three-dimensional DC specification, before Reconfiguring was eliminated from the final model.

Limitations and Future Research

Beyond the SO-DC boundary limitation discussed above (Section 4.8), four further limitations should be noted. First, the sample's concentration in the three largest Indonesian telecommunications operators, particularly its predominance of respondents from one operator, limits the generalizability of the findings to smaller or regional firms. Second, the cross-sectional design precludes strong causal inference regarding the directional and temporal ordering implied by the hypotheses. Third, the PLSpredict-based predictive relevance analysis (Section 4.2) was conducted using the pre-elimination, three-dimensional DC specification rather than the final two-dimensional specification used for hypothesis testing. Although this difference is judged unlikely to alter the substantive conclusion, the analysis was not reverified using the exact final

specification. Fourth, the 4.6% of respondents who technically fell outside the stated inclusion criteria were retained in the reported analysis. A sensitivity analysis excluding these cases is recommended as a robustness check in any subsequent use of this dataset.

Future research should extend this design to smaller and regional operators or to other regulated, capital-intensive industries in emerging markets; adopt longitudinal or time-lagged designs to strengthen causal inference; and complete a blindfolding-based Q^2 assessment using the final model specification. Most directly motivated by the study's central limitation, future research should explicitly test the discriminant validity of DC's three microfoundational dimensions against Strategic Orientation before assuming that Teece (2007) and Bhardwaj et al. (2022) three-dimensional structure applies unchanged to similarly hierarchical, state-influenced institutional settings. Qualitative or mixed-methods research could investigate whether respondents in such settings substantively distinguish strategic renewal intent from reconfiguration capability.

CONCLUSION

This study examined how Strategic Orientation (SO) influences Business Model Innovation (BMI) through Dynamic Capabilities (DC), as well as the role of Top Management Support (TMS), among incumbent firms in the Indonesian telecommunications industry ($n = 176$). Three principal findings emerged. First, SO positively influences DC ($\beta = 0.610$, $p < .001$) and exerts both a significant direct effect on BMI ($\beta = 0.377$, $p < .001$) and a significant indirect effect through DC ($\beta = 0.125$, $p = .025$), establishing DC as a partial, complementary mediator. Second, TMS does not moderate the DC $\rightarrow$ BMI relationship ($\beta = 0.025$, $p = .313$) but instead operates as a significant direct predictor of BMI ($\beta = 0.324$, $p = .001$). This pattern is more consistent with a Dynamic Managerial Capabilities perspective than with a strict Upper Echelons Theory moderation framework. Third, the Reconfiguring dimension of DC could not be empirically distinguished from SO (HTMT = 0.912), highlighting a methodological concern regarding the application of Teece, (2007) and (Bhardwaj et al., 2022) three-dimensional DC framework in hierarchical, state-influenced institutional settings.

These findings extend the SO–DC–BMI literature to a regulated, capital-intensive emerging-market context and offer three practical implications: (a) investment in market and entrepreneurial orientation may generate broad downstream effects on BMI; (b) direct top-management engagement, rather than merely endorsement of capability-building, is independently associated with BMI outcomes; and (c) capability development should focus specifically on Sensing and Seizing routines. Future research should extend this design to smaller operators, adopt longitudinal designs to strengthen causal inference, and investigate qualitatively why Reconfiguring and SO overlap in hierarchical settings.

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AUTHOR CONTRIBUTION STATEMENT

Topaz Malik Aziz contributed to the conceptualization of the study, research design, methodology development, data analysis, interpretation of findings, and preparation of the original manuscript. Luqman Satria Manggala contributed to literature review, theoretical framework development, methodological refinement, and interpretation of the research findings. Ervina Priyanti contributed to data collection, data validation, investigation, and interpretation of the empirical results. Mira Maulida contributed to data curation, manuscript review, editing, and refinement of the discussion and managerial implications. All authors participated in reviewing and revising the manuscript, approved the final version, and agreed to be accountable for the integrity and accuracy of the work.

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