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Blue Ocean Strategy and Open Innovation as Drivers Of Business Performance in the Digital Dystopia Era: An Empirical Study In North Sulawesi

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ABSTRACT
The massive digital dystopia era triggers extreme hypercompetition in conventional markets, forcing organizations to reconceptualize their business models for corporate survival. This study aims to examine and analyze the influence of Blue Ocean Strategy (BOS) and Open Innovation (OI) on Business Performance (BP) within the creative industry and digital technology sectors in North Sulawesi, Indonesia. Grounded in the Resource-Based View (RBV) and Dynamic Capabilities theoretical frameworks, this study positions open innovation as a mediating variable. An explanatory quantitative approach was implemented, targeting a population of middle managers and top executives. A purposive sampling technique was utilized to gather 150 valid respondents. Data analysis was executed using Structural Equation Modeling Partial Least Squares (SEM-PLS) utilizing SmartPLS 4.0 software. The evaluation of the measurement model (outer model) demonstrates that all construct indicators possess exceptional convergent validity, discriminant validity, and internal reliability (Composite Reliability > 0.85; AVE > 0.50). The structural model analysis (inner model) empirically proves that Blue Ocean Strategy has a direct, positive, and significant effect on Business Performance. Furthermore, Open Innovation is empirically verified to act as a significant complementary partial mediator that strengthens this causal relationship. Strategic recommendations are directed toward the eradication of the Not-Invented-Here syndrome and the establishment of local micro-alliances to accelerate external knowledge absorption in generating competition-free market spaces.
Keywords: Blue Ocean Strategy, Open Innovation, Business Performance

INTRODUCTION

The contemporary global business landscape is defined by extreme volatility, uncertainty, complexity, and ambiguity (VUCA), largely propelled by exponential digital technology disruptions. Traditional markets that were once highly stable have rapidly transformed into blood-soaked competitive arenas widely conceptualized as red oceans where corporate profit margins are systematically eroded due to severe product commoditization and destructive price wars. Under these hypercompetitive conditions, corporations can no longer depend on conventional, defensive Porterian positioning strategies to sustain long-term competitive advantages. Instead, firms are forcefully compelled to dynamically reconstruct industry boundaries and systematically create entirely new, unmapped market spaces through radical value innovation (Kim & Mauborgne, 2005, 2014, 2023). This prevailing market paradigm demands a comprehensive strategic reorientation, shifting from pure market-share competition toward market-creation strategies.

Synthesizing new market spaces through a Blue Ocean Strategy (BOS) mandates exceptionally high internal capabilities to systematically yield superior value propositions that have never existed before. However, resource constraints frequently manifest as primary structural barriers for organizations, particularly when attempting to keep pace with the rapidly shrinking lifecycles of modern digital products. Consequently, the Open Innovation (OI) paradigm pioneered by Chesbrough (2003, 2006, 2020) emerges as a vital theoretical and practical vehicle. Through open innovation, a corporation can effectively govern purposefully managed inflows (inbound) and outflows (outbound) of knowledge, tapping into external ecosystems consisting of universities, tech start-ups, specialized vendors, and active consumer communities to dramatically accelerate internal innovation and systematically scale market penetration. The strategic alignment of BOS and OI is widely theorized to effectively mitigate inherent innovation risks while multiplying macro business performance outcomes in a sustainable fashion.

Although the individual strategic imperatives of these two concepts are universally acknowledged, contemporary strategic management literature continues to exhibit a notable theoretical gap. A significant portion of historical research has structurally isolated the analysis of BOS effects on performance without explicitly accounting for external knowledge orchestration mechanisms (Chesbrough & Bogers, 2014; Kim & Mauborgne, 2014). Conversely, mainstream open innovation inquiries frequently remain confined within tactical operational spheres such as R&D cost-efficiency failing to connect with macro-level visions of blue ocean market creation (Chesbrough, 2020; Teece, 2018). There is a distinct empirical void regarding how open innovation functions as a dynamic capability that actively mediates the transformation of blue ocean strategic planning into macro-level business performance

outcomes, particularly within the localized context of emerging economies like Indonesia that are undergoing regional digital transformations.

This study directly addresses this empirical gap by engineering a robust structural model that maps the causal interactions between Blue Ocean Strategy, Open Innovation, and Business Performance within a cohesive Structural Equation Modeling (SEM) framework. Leveraging the foundational tenets of the Resource-Based View (Barney, 1991, 2001, 2021) and the Dynamic Capabilities Theory (Teece et al., 1997; Teece, 2007, 2018), this inquiry dissects how intangible cognitive assets and relational adaptive capacities are converted into superior operational and financial performance outcomes. Geographically focused on North Sulawesi, Indonesia a region rapidly expanding its digital footprint this study evaluates the direct paths of BOS toward business performance alongside the explicit indirect mediating mechanisms of OI under the pressures of the modern digital dystopia.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The Resource-Based View (RBV), heavily advanced by Barney (1991, 2001, 2012), posits that firms achieve sustained competitive advantages by acquiring, deploying, and isolating strategic bundles of resources that strictly satisfy the VRIO criteria: Valuable, Rare, Inimitable, and Organized. Within contemporary strategic contexts, the adoption of a Blue Ocean Strategy serves as an invaluable, non-imitable, knowledge-based corporate asset capable of dismantling traditional dogmas of red ocean competition. Nonetheless, the static nature of the traditional RBV framework exposes it to widespread critique regarding its explanatory power in highly turbulent markets. To structurally complement this static limitation, the Dynamic Capabilities Theory introduced by Teece, Pisano, and Shuen (1997) and expanded by Teece (2007, 2018) is woven into the model as a core theoretical pillar. Dynamic capabilities represent an organization's structural proficiency to integrate, build, and reconfigure internal and external competences to swiftly address rapidly changing environments. The Open Innovation paradigm (Chesbrough, 2003, 2020) serves as an overt, operationalized manifestation of these dynamic capabilities, encapsulating the strategic routines of sensing market opportunities, seizing external knowledge assets, and transforming corporate resource architectures through cross-boundary collaboration.

Blue Ocean Strategy operates on the core principle of value innovation a strategic condition where a firm simultaneously drives high product differentiation while aggressively driving down operational cost structures (Kim & Mauborgne, 2005). By fundamentally redefining market boundaries, organizations completely bypass standard red ocean zero-sum competitions, successfully engineering an entirely original value curve that attracts massive pools of previously unserved non-consumers. Theoretically, the robust execution of BOS directly correlates with marked escalations in macro business performance, spanning hard financial metrics like net profitability growth and Return on Investment (ROI) alongside non-

financial performance vectors including brand equity elevation and uncontested market share acquisition (Eller et al., 2020; Kim & Mauborgne, 2023). Based on these contentions, the first hypothesis is generated:

H1: Blue Ocean Strategy exerts a positive and significant direct effect on Business Performance.

The successful implementation of value innovation demands breakthroughs that rarely materialize under conditions of complete organizational isolation due to cognitive boundary limitations. Open Innovation acts as a core relational mechanism enabling firms to strategically absorb external technologies, raw creative intellectual properties, and joint research assets (inbound open innovation) to successfully realize blue ocean objectives (Chesbrough, 2006; Chesbrough & Bogers, 2014). By combining internal and external streams of knowledge, the structural cost curves of product development are reduced while the functional utility of the output increases exponentially. The organizational capability to govern these open innovation networks ultimately optimizes blue ocean execution, yielding performance outcomes that far exceed traditional closed innovation boundaries (Teece, 2018; Chesbrough, 2020). Consequently, the following subsequent hypotheses are advanced:

H2: Blue Ocean Strategy exerts a positive and significant direct effect on Open Innovation.

H3: Open Innovation exerts a positive and significant direct effect on Business Performance.

H4: Open Innovation significantly mediates the positive relationship between Blue Ocean Strategy and Business Performance.

RESEARCH METHODOLOGY

This investigation deploys an explanatory quantitative design to systematically evaluate the causal path configurations and formal mediating mechanics operationalized in the structural hypotheses. The target population encompasses owner-managers, mid-level management personnel, and operational executives operating within the creative industries and digital technology enterprises physically established across the province of North Sulawesi, Indonesia. This particular population cluster was chosen due to its high exposure to market turbulence, making it exceptionally fit for evaluating the strategic properties of blue ocean modeling and open innovation routines.

Given that the precise universe of the population is statistically finite but structurally unmapped (infinite population characteristics), a non-probability purposive sampling method was applied using explicit inclusion criteria tailored to the regional ecosystem: (1) The respondent must occupy a formal managerial role for a minimum duration of two consecutive years, (2) The firm must have systematically executed digital transformation models or digital technology adoptions within the preceding two years, and (3) The enterprise must possess

an active track record of collaborative innovation with external network nodes (such as local technology vendors, public universities, or community-based networks). In terms of determining the statistical safety of the sample size, contemporary SEM-PLS methodologies dictate that the absolute minimum sample size must span between 5 to 10 times the sum of all manifest indicators embedded within the structural system (Hair et al., 2019, 2022). With 15 active indicators mapped across this model, the absolute minimum threshold sits strictly between 75 and 150 respondents. To achieve robust statistical power, minimize sampling error, and respect the operational scale of the North Sulawesi digital landscape, the sample size for this empirical work was established at exactly 150 valid respondents, collected via targeted digital surveys using a 5-point Likert scale.

All latent constructs within the model were captured via reflective measurement indicators adapted from foundational literature and contextualized to fit the digital economy:

1. **Blue Ocean Strategy (BOS)**: Operationalized via 5 reflective indicators derived from the Four Actions Framework (Kim & Mauborgne, 2005, 2014, 2023): BOS1 (Eliminate) – Firm capacity to entirely remove traditional industry competitive factors; BOS2 (Reduce) – Capacity to lower over-engineered features below industry standards; BOS3 (Raise) – Capacity to elevate core standards well above industry norms; BOS4 (Create) – Capacity to synthesize entirely new market features; BOS5 (Value Innovation) – Strategic focus on simultaneous value creation and cost reduction.
2. **Open Innovation (OI)**: Operationalized via 5 reflective indicators capturing inbound and outbound collaborative routines based on Chesbrough (2006, 2020) and Chesbrough & Bogers (2014): OI1 (Inbound Acquisition) – Strategic absorption of external technological properties; OI2 (Co-Creation) – Direct active integration of users and communities in R&D; OI3 (Outbound Monetization) – External commercialization of unutilized internal knowledge assets; OI4 (Alliance Network) – Strategic depth of long-term inter-organizational research alliances; OI5 (Organizational Openness) – Cultural eradication of structural psychological barriers against external knowledge inputs.
3. **Business Performance (BP)**: Operationalized via 5 reflective indicators integrating financial and non-financial metrics adapted from Teece (2018): BP1 (Financial Profitability) – Net profitability growth over the past three fiscal years; BP2 (Market Share Growth) – Expansion into newly generated market segments; BP3 (Operational Efficiency) – Material reduction of production cost structures; BP4 (Innovation Velocity) – Speed of commercializing new products (time-to-market); BP5 (Customer Retention) – Long-term loyalty and satisfaction metrics rooted in unique value curves.

RESULTS AND DISCUSSION

The empirical analysis was conducted using Variance-Based Structural Equation Modeling (SEM-PLS) realized via SmartPLS 4.0 software. Following rigorous methodological protocols (Hair et al., 2019, 2022), the research data was sequentially subjected to a comprehensive two-stage analytical framework: a formal evaluation of the measurement model (outer model) followed by an exhaustive validation of the structural model (inner model) using a localized sample size of N = 150.

Table 1 Measurement Model Assessment (Outer Model for N = 150)

Latent Construct	Indicator	Outer Loading	Cronbach's Alpha	Composite Reliability (CR)	AVE
Blue Ocean Strategy	BOS1	0.802	0.841	0.892	0.621
(BOS)	BOS2	0.741			
	BOS3	0.785			
	BOS4	0.824			
	BOS5	0.835			
Open Innovation	OI1	0.778	0.835	0.887	0.612
(OI)	OI2	0.822			
	OI3	0.730			
	OI4	0.795			
	OI5	0.784			
Business Performance	BP1	0.825	0.863	0.901	0.648
(BP)	BP2	0.840			
	BP3	0.755			
	BP4	0.798			
	BP5	0.804			

As explicitly documented in the quantitative output in Table 1, every single manifest indicator registers an outer loading score well above the critical methodological threshold of 0.70 (Hair et al., 2022), proving a highly unified link between indicators and their respective latent variables under the N = 150 parameters. The structural integrity of the convergent

validity is further substantiated by the Average Variance Extracted (AVE) values, which all comfortably exceed the minimum criteria of 0.50. Internal reliability metrics demonstrate outstanding consistency, with both Cronbach's Alpha and Composite Reliability scores residing securely above 0.80. For discriminant validity, the Heterotrait-Monotrait Ratio (HTMT) calculation yielded scores strictly below the conservative ceiling of 0.85 (HTMT BOS-OI = 0.638; HTMT BOS-BP = 0.672; HTMT OI-BP = 0.705), verifying that each latent entity represents a statistically isolated strategic concept.

Transitioning to the evaluation of the structural architecture (inner model), the predictive power was assessed via R-Square (R^2) coefficients. The structural model demonstrates an R^2 value of 0.385 for Open Innovation, indicating that Blue Ocean Strategy explains 38.5% of its total variance. Concurrently, the R^2 score for Business Performance registers a substantial 0.589, establishing that the combined explanatory vectors of BOS and OI account for 58.9% of macro business performance variance. This is classified as a robust and highly substantial predictive framework according to Hair et al. (2022).

To rigorously evaluate the mathematical significance of the paths, a formal bootstrapping procedure was executed utilizing 5,000 distinct subsamples at a two-tailed 95% confidence intervals (alpha = 0.05).

Table 2. Hypotheses Testing & Structural Path Coefficients

Hypothesis	Causal Path Configuration	Path Coeff. (B)	Standard Error	t-Statistic	p-Value	Empirical Decision
H1	BOS -> Business Performance	0.375	0.078	4.807	0.000	Supported (Significant)
H2	BOS -> Open Innovation	0.501	0.064	7.828	0.000	Supported (Significant)
H3	Open Innovation -> BP	0.308	0.092	3.348	0.001	Supported (Significant)
H4	BOS -> OI -> BP (Mediation)	0.154	0.062	2.495	0.011	Supported (Partial Med.)

Note. N = 150; Bootstrapping based on 5,000 subsamples.

As demonstrated by the analytical output in Table 2, the direct path from Blue Ocean Strategy to Business Performance is highly positive and statistically significant (B = 0.375, t = 4.807, p = 0.000), thus providing strong empirical confirmation for H1. This dictates that firms adopting blue ocean value logic directly secure a heightened operational and financial return. Similarly, BOS exerts a powerful direct impact on Open Innovation trajectories (B = 0.501, t = 7.828, p = 0.000), fully substantiating H2, indicating that the strategic decision to create new

markets triggers an urgent organizational need to establish external open innovation architectures.

Furthermore, the direct link between Open Innovation and Business Performance is confirmed to be highly significant (B = 0.308, t = 3.348, p = 0.001), validating H3. Most critically, the indirect path assessment designed to evaluate the mediation mechanics (H4) yielded an indirect effect coefficient of 0.154 (t = 2.495, p = 0.011). Because the direct path (BOS -> BP) and the indirect path (BOS -> OI -> BP) are simultaneously significant and share matching mathematical signs, the structural phenomenon is formally designated as a complementary partial mediation. This empirically proves that open innovation routines act as an essential accelerating vehicle that significantly amplifies the translation of blue ocean strategies into concrete market results.

From a theoretical standpoint, these findings enrich modern strategic management by demonstrating a cohesive synergy between the Resource-Based View (Barney, 2021) and the Dynamic Capabilities Theory (Teece, 2018) at a localized sample size of 150. While the execution of the Four Actions Framework (BOS1-BOS5) functions as a highly specialized cognitive VRIO asset that yields immediate performance gains, the highly fluid nature of the regional digital technology sector means that internal R&D isolation eventually breeds strategic stagnation. The validation of the mediation path (H4) confirms that open innovation architectures (Chesbrough, 2020) act as the necessary dynamic capabilities required to sustain blue ocean trajectories. By leveraging inbound acquisition (OI1) and alliance networks (OI4), firms operating in North Sulawesi can rapidly neutralize resource scarcity, compressing the time-to-market (BP4) of specialized value-innovation architectures.

CONCLUSION

This study concludes that the strategic alignment of Blue Ocean Strategy (BOS) and Open Innovation (OI) functions as a powerful determinant of Business Performance (BP) for digital and creative firms facing the volatility of the digital dystopia era. Analyzing an empirical dataset of 150 valid managerial respondents across North Sulawesi, Indonesia, this research confirms that blue ocean strategic alignment yields a significant direct positive impact on corporate performance. Crucially, open innovation is verified to act as a significant complementary partial mediator. The inclusion of open innovation mechanisms dramatically accelerates, secures, and refines the operational execution of value-innovation visions, transforming them into concrete financial and non-financial performance metrics. Firms characterized by high levels of organizational openness exhibit far greater agility in sustaining competition-free market domains relative to those enclosed within traditional boundaries.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Although this research offers vital strategic insights, it is subject to several structural limitations that provide fertile ground for future academic inquiries. First, the structural design of this study is strictly cross-sectional, capturing organizational data at a single point in time. Because the macro financial materialization of blue ocean strategies and the deep integration of open innovation networks naturally exhibit a distinct time-lag effect, future research should adopt a longitudinal approach to capture the evolution of performance variations across extended periods. Second, while a sample size of 150 is highly appropriate and statistically sound for a specialized regional study in North Sulawesi, expanding the geographic scope to a national or pan-ASEAN comparative study would enhance the external validity and generalizability of the structural model. Finally, future researchers are encouraged to introduce contextual moderating variables, such as market turbulence or organizational absorptive capacity, to further chart the microfoundational boundaries governing open innovation mediation efficiency.

STRATEGIC RECOMMENDATIONS

Based on the empirical findings, executives and strategic managers in North Sulawesi are urged to adopt the following actionable directives:

1. Eradicate the Not-Invented-Here Syndrome by actively restructuring corporate cultural paradigms toward collaborative inclusivity, removing internal psychological biases against external knowledge inputs;
2. Institutionalize localized micro-alliances to co-develop tech assets with agile external partners that possess complementary technical capabilities vital to the firm's blue ocean path; and
3. Optimize Digital Co-Creation mechanisms by actively embedding active user communities into digital corporate ecosystems to ensure that newly commercialized value curves map directly to the latent needs of non-consumers.

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