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Synergy Illusion in Large-Scale Mergers: Why Strategic M&A Systematically Underperforms Capital Expectations

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Abstract

This study examines whether large-scale strategic mergers create economic value once capital costs are fully accounted for. Using a rigorously constructed archival sample of 32 large-scale strategic mergers undertaken by Indian-listed firms between 2010 and 2023, it investigates the phenomenon of synergy illusion-the systematic overestimation of merger-related benefits relative to realized post-merger capital performance. Post-merger outcomes are evaluated using a return on invested capital (ROIC) relative to weighted average cost of capital (WACC) framework over a three- to five-year horizon. The results show that most strategic mergers fail to earn returns exceeding the cost of capital, with particularly pronounced underperformance in transactions justified primarily by revenue synergies. Governance structure further conditions outcomes, as promoter-controlled firms exhibit significantly weaker capital discipline than professionally managed firms. By reframing M&A underperformance as an ex-ante capital allocation problem rather than a post-merger integration failure, the study reconnects strategic decision-making with economic value creation and advances synergy illusion as a measurable construct in strategy research.

1. Introduction

Large-scale strategic mergers represent some of the most consequential capital allocation decisions undertaken by modern corporations. These transactions routinely involve multi-billion-dollar commitments, irreversible organizational restructuring, and long-horizon strategic bets that shape firm trajectories for decades. Despite their scale and significance, a striking regularity persists across industries and time periods: most large strategic mergers fail to generate operating returns that exceed the cost of capital. This pattern has been documented repeatedly in both finance and strategy literatures, even among experienced acquirers and in otherwise favourable market environments.[12]

The persistence of merger underperformance presents a fundamental puzzle for strategy and corporate finance research. Decades of empirical work document disappointing post-merger outcomes, yet large strategic mergers continue to be proposed, approved, and executed with remarkable confidence. Advisory practices have become increasingly sophisticated, integration playbooks more refined, and governance frameworks more formalized. Nevertheless, the aggregate record of value creation remains stubbornly weak. Prior evidence suggests that acquiring firms frequently underperform on operating and shareholder value measures following large mergers, raising questions about whether learning from past failures meaningfully informs future deal decisions. [1, 3]

At the centre of most large strategic mergers lies the promise of synergy. Synergies-framed as revenue enhancement, cost efficiencies, capability combination, or platform expansion-serve as the primary justification for acquisition premiums and large capital commitments. Deal announcements and investor communications routinely emphasize quantified synergy targets, often accompanied by detailed integration roadmaps and strategic narratives of transformation. Yet, ex post assessments consistently indicate that these projected benefits rarely translate into sustained improvements in firm-level capital efficiency. The paradox is not merely that some mergers fail, but that similar patterns of underperformance recur across industries and deal cycles. [4,5]

Existing explanations for this phenomenon have largely focused on post-deal execution failures. Prior research highlights integration complexity, cultural mismatch, operational disruption, and organizational frictions as impediments to synergy realization.[67] Behavioral perspectives emphasize managerial overconfidence and hubris, while agency-based accounts point to empire-building incentives and weak shareholder oversight.[89] While these explanations offer important insights, they share a common limitation: they treat value destruction primarily as an outcome of implementation failure or individual bias, rather than as a predictable consequence of how strategic investments are justified and approved ex ante.

This study advances a different explanation. We argue that persistent underperformance in large strategic mergers is **systematically associated with weaker capital allocation discipline at the decision-making stage**. Specifically, we introduce the concept of **synergy illusion**-a structural bias in which anticipated strategic benefits are overstated relative to the firm's ability to convert them into returns exceeding the cost of capital. Under synergy illusion, synergy projections **appear to function** less as disciplined capital forecasts and more as legitimizing narratives that reconcile large capital commitments with strategic aspirations such as scale, market leadership, and transformation. This framing extends prior work on hubris and agency by conceptualizing optimism not as an idiosyncratic bias, but as an institutionalized feature of strategic decision-making processes.[810]

By reframing merger underperformance as a capital allocation problem rather than a post-merger integration failure, this study reconnects strategic decision-making with economic value creation. From a capital logic perspective, mergers are investments that must compete with alternative uses of capital and justify their existence by generating returns above the firm's weighted average cost of capital (WACC).[1112] Yet, in large strategic mergers, strategic logic often dominates capital logic. Growth narratives, competitive positioning, and long-term vision are frequently allowed to substitute for rigorous evaluation of capital efficiency, enabling optimistic synergy assumptions to persist even when historical evidence suggests otherwise.[313]

To empirically examine this phenomenon, we analyze a sample of 32 large-scale strategic mergers undertaken by Indian-listed firms between 2010 and 2023. Focusing on post-merger operating performance rather than short-term market reactions, we evaluate whether these transactions generate economic value by comparing realized return on invested capital (ROIC) with the firm's cost of capital over a three- to five-year post-merger horizon. This ROIC–WACC framework provides a direct and economically grounded test of value creation that is often absent from strategy-oriented merger studies.[1112]

In addition, we disaggregate synergy justifications to examine whether certain types of synergies are more prone to illusion. We distinguish between mergers primarily justified by revenue synergies and those emphasizing cost synergies, recognizing that these mechanisms differ fundamentally in their predictability and controllability. Prior research suggests that revenue synergies are particularly difficult to realize due to market responses, customer behavior, and organizational inertia.[67] We further examine how governance structures condition merger outcomes, focusing on whether promoter-dominated firms exhibit weaker capital discipline than professionally managed firms when evaluating and executing large strategic mergers.[89]

This study makes three core contributions. First, it introduces synergy illusion as a distinct and measurable construct that captures the systematic gap between ex ante strategic justification and ex post capital performance in large mergers. Second, it bridges strategy and corporate finance by reframing M&A not as an exceptional strategic act, but as a capital deployment decision subject to the same economic constraints as any other investment.[1112] Third, it provides empirical evidence that merger underperformance is not random or episodic, but systematically associated with the nature of synergy claims and the governance structures under which strategic decisions are made.

By anchoring merger evaluation to realized ROIC relative to the cost of capital, this paper responds to growing calls within strategy research to reconnect strategic choice with economic value creation. In doing so, it shifts the focus of the M&A debate away from execution failures and toward the institutionalized decision-making processes that allow optimistic synergy narratives to override capital discipline. Recognizing synergy illusion, we argue, is essential to understanding why large strategic mergers continue to disappoint-and how firms might begin to allocate capital more effectively.

The remainder of the paper is structured as follows. Section 2 reviews the relevant literature on M&A performance, synergies, and decision-making biases, and develops the theoretical foundation for the synergy illusion construct. Section 3 presents the hypotheses. Section 4 outlines the data, sample selection, and methodology. Section 5 reports the empirical results. Section 6 discusses the findings and their implications for theory and practice. Section 7 concludes with limitations and directions for future research.

2. Literature Review and Theory Development

Mergers and acquisitions (M&A) remain one of the most visible and capital-intensive strategic actions undertaken by firms. Despite decades of accumulated managerial experience, advisory sophistication, and academic scrutiny, large-scale strategic mergers continue to exhibit a striking regularity: the majority fail to deliver the capital returns promised at the time of deal announcement. Empirical studies consistently report that post-merger operating performance and shareholder value creation fall short of expectations, particularly in transactions justified based on strategic synergies rather than purely financial or restructuring motives. [12]

At the centre of most large strategic mergers lies the concept of synergy. Synergies-whether framed as cost efficiencies, revenue enhancement, capability combination, or platform expansion-serve as the primary justification for paying acquisition premiums and committing substantial capital. Deal

announcements and investor presentations routinely emphasize quantified synergy targets, often accompanied by detailed integration roadmaps and timelines. Yet, ex post assessments suggest that these projected benefits rarely translate into sustained improvements in firm-level capital efficiency. [45] The paradox is not merely that some mergers fail, but that similar patterns of underperformance recur even among experienced acquirers, across industries, and over multiple deal cycles. [3]

Existing literature has offered several explanations for this phenomenon. Integration complexity, cultural mismatch, operational disruption, and adverse market conditions are frequently cited as post-deal impediments to value realization. [67] While these factors undoubtedly affect execution, they do not fully explain why optimistic synergy projections persist ex ante, nor why boards and investors repeatedly endorse transactions that subsequently underperform on capital metrics. If execution risk were the primary issue, one would expect firms to adjust their valuation assumptions over time. Instead, strategic narratives surrounding scale, market leadership, and transformation continue to dominate deal rationales, often overshadowing disciplined capital return considerations. [4]

Behavioural and agency-based perspectives provide additional insight into merger decision-making. The hubris hypothesis suggests that managerial overconfidence leads executives to overestimate their ability to extract value from acquisitions, resulting in excessive premiums and subsequent underperformance.[8] Related work highlights how free cash flow and weak governance structures can incentivize empire-building behavior, particularly when managers face limited external discipline.[910] While these explanations identify important drivers of value destruction, they largely treat bias as an individual-level phenomenon rather than a recurring organizational or institutional pattern.

This study argues that the problem lies deeper than execution failure or isolated managerial bias. We propose that large-scale strategic mergers are **systematically characterized by** a synergy illusion-a structural bias in which anticipated strategic benefits are overstated relative to the firm's ability to convert them into returns exceeding the cost of capital. Rather than viewing merger underperformance solely as an outcome of integration difficulties, we reframe it as a capital allocation problem embedded in the pre-deal decision-making process. In doing so, we shift the analytical focus from post-merger integration to the assumptions, incentives, and evaluative frames that shape merger justification itself.[411]

The concept of synergy illusion builds on, but extends beyond, existing explanations rooted in agency theory and behavioral finance. Prior research documents that firms often repeat acquisition mistakes despite negative past outcomes, suggesting limited organizational learning in M&A contexts.[36] However, much of this work stops short of explaining why optimistic synergy narratives remain persuasive in capital-intensive strategic mergers. We conceptualize synergy illusion as a system-level phenomenon-one reinforced by governance structures, strategic discourse, and performance evaluation mechanisms that privilege deal completion and scale expansion over long-term capital efficiency.[1013]

Central to our argument is the distinction between **strategic logic** and **capital logic**. Strategic logic emphasizes market positioning, competitive advantage, and long-term growth narratives. Capital logic, by contrast, requires that investments generate returns exceeding the firm's weighted average cost of capital (WACC) over an appropriate horizon.[1112] While both logics are theoretically complementary, large strategic mergers often prioritize the former at the expense of the latter. Synergy projections, in this

context, **often appear to function** less as disciplined capital forecasts and more as legitimizing devices that align stakeholders around a compelling strategic story.[4]

To empirically examine this phenomenon, we analyze a sample of large-scale strategic mergers and evaluate whether post-merger operating performance meets the capital expectations implied at deal inception. Specifically, we compare realized post-merger return on invested capital (ROIC) with the acquiring firm's cost of capital over a three- to five-year horizon. By anchoring performance assessment to ROIC–WACC differentials, we adopt a capital-discipline lens that is often absent from strategy-oriented M&A studies.[11][12] This approach allows us to move beyond short-term stock market reactions and assess whether mergers genuinely create economic value.[12]

In addition, we disaggregate synergy claims into broad categories-such as revenue synergies and cost synergies-to examine whether certain types of synergies are more prone to overestimation. Prior studies suggest that revenue synergies, in particular, are difficult to realize due to market dynamics, customer behavior, and organizational inertia.[6][7] We extend this insight by linking synergy type to realized capital outcomes, thereby identifying which merger rationales are most closely associated with post-deal underperformance.

Finally, the study explores the role of governance structures in shaping synergy realism. Firms differ substantially in how strategic decisions are made and challenged at the board level. In some contexts, concentrated ownership or promoter dominance may amplify conviction-driven decision-making, while professionally managed firms may exhibit stronger internal checks on capital allocation.[9][10] By examining governance characteristics alongside performance outcomes, we assess whether synergy illusion varies systematically across organizational forms, particularly in emerging market settings.[13]

Distinguishing Synergy Illusion from Hubris and Agency-Based Explanations

While the concept of synergy illusion builds on prior behavioral and agency-based explanations of merger activity, it is analytically distinct from both. The hubris hypothesis conceptualizes merger overpayment as the result of individual managerial overconfidence, emphasizing cognitive bias at the level of the decision-maker. Agency-based explanations, in contrast, attribute value destruction to incentive misalignment, empire-building motives, or weak shareholder oversight that allow managers to pursue private benefits at the expense of owners.

Synergy illusion differs from these accounts by operating at the institutional rather than individual level. It does not rely on the presence of unusually overconfident executives or opportunistic managerial intent. Instead, it reflects a recurring and socially reinforced pattern in which strategic narratives and synergy projections systematically overstate a firm's capacity to convert anticipated benefits into returns exceeding the cost of capital. Under synergy illusion, optimistic assumptions persist even in the absence of managerial turnover, incentive changes, or learning opportunities, suggesting that the bias is embedded in organizational decision-making processes rather than driven solely by personal traits or agency conflicts.

Importantly, synergy illusion is observable ex post through realized capital outcomes. Whereas hubris and agency theories infer bias indirectly from premiums or governance characteristics, synergy illusion manifests as a persistent gap between ex ante strategic justification and ex post ROIC–WACC

performance across transactions. This measurability allows synergy illusion to be treated not merely as a psychological tendency or incentive problem, but as a structural feature of strategic capital allocation that can be empirically identified and compared across firms, governance structures, and merger rationales.

3. Research Design and Hypotheses Overview

This study adopts a quantitative, archival research design to examine whether large-scale strategic mergers systematically underperform capital expectations. Consistent with prior strategy and corporate finance research, we focus on post-merger operating performance rather than short-term stock market reactions, which are known to capture announcement effects rather than realized economic value.[12] This approach allows for a direct assessment of whether mergers generate sustained economic returns after accounting for capital employed.[1112]

The empirical strategy evaluates post-merger performance using a return on invested capital (ROIC) versus weighted average cost of capital (WACC) framework over a multi-year horizon. By anchoring performance assessment to capital efficiency, the study aligns merger evaluation with capital allocation theory and avoids reliance on relative, accounting-only, or market-based performance measures that may obscure long-term value creation.[1112]

3.1 Capital Performance of Large Strategic Mergers

A central premise of this study is that large-scale strategic mergers should be evaluated as capital allocation decisions rather than exceptional strategic events. From this perspective, a merger creates economic value only if post-merger operating returns exceed the firm's cost of capital over a sustained horizon. Prior empirical evidence suggests that acquiring firms frequently fail to meet this benchmark, particularly in transactions involving large acquisition premiums and ambitious strategic rationales.[123]

Hypothesis 1:
H1: Large-scale strategic mergers are **unlikely, on average, to generate** post-merger ROIC that exceeds WACC.[12]

3.2 Synergy Type and Capital Outcomes

Synergies form the cornerstone of strategic merger justification, yet not all synergies are equally predictable or controllable. Cost synergies typically arise from identifiable actions such as procurement rationalization, capacity consolidation, and overhead reduction, making them more amenable to planning and execution. Revenue synergies, by contrast, depend on customer behavior, cross-selling effectiveness, and competitive responses that are inherently uncertain and difficult to enforce through managerial control.[456]

Prior research indicates that revenue synergies are systematically overestimated relative to their realized contribution to firm performance.[45] When revenue synergies dominate merger justification, acquisition premiums and integration investments are more likely to be supported by aspirational growth narratives

rather than verifiable economic mechanisms. Under conditions of synergy illusion, such narratives can obscure capital discipline and lead to post-merger returns that fall short of the cost of capital.

Hypothesis 2:
H2: Strategic mergers primarily justified by revenue synergies are associated with lower post-merger ROIC–WACC outcomes than mergers emphasizing cost synergies.[4][5]

3.3 Governance Structures and Synergy Illusion

Governance structures play a critical role in shaping strategic decision-making and capital allocation discipline. Prior research suggests that firms with concentrated ownership or dominant promoters may exhibit stronger strategic conviction but weaker internal challenge mechanisms, particularly in large, transformational transactions.[8][9][10] In such contexts, optimistic synergy projections may face limited scrutiny during deal approval, increasing the likelihood of capital misallocation.

By contrast, professionally managed firms with dispersed ownership and independent board oversight may impose greater discipline on merger evaluation, subjecting synergy assumptions to more rigorous financial and strategic challenge.[10][13] These governance differences suggest that synergy illusion is not merely a cognitive bias, but an institutional outcome shaped by decision rights and oversight structures.

Hypothesis 3:
H3: Promoter-dominated governance structures are associated with weaker post-merger capital performance, particularly in revenue-synergy-driven mergers.[8][9][10]

3.4 Empirical Strategy Overview

The hypotheses developed above are tested using post-merger ROIC outcomes, synergy characteristics disclosed at the time of deal announcement, and governance-related firm attributes. By examining both direct effects and interaction effects between synergy type and governance structure, the analysis assesses whether synergy illusion manifests as a systematic and predictable pattern in post-merger capital outcomes rather than as isolated deal failure.[11][12]

4. Methodology

4.1 Sample Scope and Size

The final sample consists of 32 large-scale strategic mergers involving Indian-listed acquiring firms completed between 2010 and 2023. The sample spans multiple sectors, including energy, materials, infrastructure, consumer industries, non-bank financial services, and technology, thereby capturing a broad cross-section of capital-intensive strategic transactions. The sample size reflects stringent disclosure and post-merger data availability requirements rather than arbitrary selection and is consistent with prior archival studies examining large, high-impact mergers.[1][2]

Details of the sample construction process and exclusion criteria are provided in **Appendix A**.

4.2 Sample Selection, Data Sources, and Variable Measurement

4.2 Sample Selection

The sample consists of **large-scale strategic mergers** completed over a defined observation window. Transactions are selected based on the following criteria:

1. **Deal size:** Transactions with an announced deal value exceeding USD 1 billion or representing at least 20% of the acquiring firm's pre-deal market capitalization, ensuring materiality.
2. **Deal rationale:** Transactions explicitly justified using strategic synergies (e.g., growth, market expansion, platform integration) rather than purely financial restructuring or distress-driven motives.
3. **Completion status:** Only completed mergers are included to ensure post-merger performance can be evaluated.
4. **Data availability:** Availability of pre-deal synergy disclosures and post-merger financial data for at least three years following completion.

Financial institutions and regulated utilities are excluded due to differences in capital structure, accounting conventions, and regulatory capital requirements. The final sample represents a cross-industry set of large strategic mergers, enhancing generalizability while maintaining comparability.

4.3 Data Sources

Data are drawn exclusively from **publicly available sources**, ensuring replicability:

- **Deal characteristics and synergy disclosures:** Acquirer press releases, investor presentations, and regulatory filings at the time of deal announcement.
- **Financial data:** Annual reports and consolidated financial statements of acquiring firms for the pre-merger period and up to five years post-merger.
- **Cost of capital inputs:** Firm disclosures, industry benchmarks, and standard financial models applied consistently across the sample.
- **Governance attributes:** Ownership disclosures, board composition information, and corporate governance reports.

No proprietary, confidential, or interview-based data are used.

4.4 Measurement of Key Variables

4.4.1 Post-Merger Performance (Dependent Variable)

Return on Invested Capital (ROIC) is used as the primary measure of post-merger operating performance. ROIC is calculated as:

ROIC = NOPAT / Invested Capital

where:

- **NOPAT** is net operating profit after tax, adjusted to exclude non-recurring items.
- **Invested Capital** includes equity, net debt, and other long-term operating capital employed.

To capture sustained performance rather than short-term volatility, ROIC is measured as the **average ROIC over years three to five post-merger**, consistent with integration timelines observed in large transactions.

Capital performance is assessed relative to the firm's **weighted average cost of capital (WACC)**. A merger is classified as value-creating only if post-merger ROIC exceeds WACC.

4.4.2 Synergy Characteristics (Independent Variables)

Synergy projections are extracted from management disclosures at the time of deal announcement. Two primary synergy variables are constructed:

- **Synergy magnitude:** Total projected synergies scaled by the acquiring firm's invested capital, to allow cross-firm comparison.
- **Synergy type:** A categorical variable distinguishing between mergers primarily justified by revenue synergies versus cost synergies, based on management emphasis and quantitative disclosure.

Where firms disclose both types, the dominant synergy rationale is identified based on relative magnitude and narrative emphasis.

4.4.3 Governance Variables

To examine governance effects, firms are classified based on ownership and control characteristics:

- **Promoter-dominant firms:** Firms with concentrated ownership or founder/promoter influence over strategic decisions.
- **Professionally managed firms:** Firms with dispersed ownership and professional management oversight.

This classification allows testing of whether governance structures influence the degree of synergy illusion and post-merger capital performance.

The criteria used to classify firms as promoter-controlled or professionally managed are detailed in **Appendix E**.

4.4.4 Control Variables

The analysis includes standard controls used in M&A performance studies, including:

- Firm size
- Industry fixed effects
- Pre-merger ROIC
- Leverage
- Deal relatedness

These controls mitigate alternative explanations for performance differences.

Formal definitions and measurement procedures for all variables used in the analysis are summarized in **Appendix B**.

4.5 Empirical Model

The hypotheses are tested using regression models that relate post-merger capital performance to synergy characteristics and governance attributes. The primary specification takes the following form:

Post-merger (ROIC − WACC) = f (Synergy magnitude, Synergy type, Governance structure, Controls)

Robust standard errors are used to address heteroskedasticity. Alternative model specifications are estimated to test the sensitivity of results to different performance windows and variable definitions.

4.6 Robustness and Validity Considerations

Several steps are taken to enhance robustness and validity:

- **Alternative performance windows:** Results are tested using different post-merger horizons (e.g., years two to four).
- **Alternative synergy scaling:** Synergies are scaled using transaction value as a robustness check.
- **Endogeneity concerns:** While causality cannot be fully established, lagged performance measures and control variables help mitigate reverse causality concerns.

4.7 Limitations

As with most archival studies, the analysis relies on management-disclosed synergy projections, which may vary in transparency and precision. Additionally, while ROIC–WACC provides a rigorous capital efficiency metric, it may not fully capture long-term strategic option value. These limitations are acknowledged and addressed in the discussion section.

5. Results

5.1 Descriptive Statistics

Table 2 presents descriptive statistics for the key variables used in the analysis. Acquiring firms in the sample exhibit relatively strong operating performance prior to the transaction, as reflected in a mean pre-merger ROIC of 13.3 percent. This suggests that firms entering large strategic mergers are not systematically distressed or operationally weak at the time of deal approval, consistent with prior evidence that acquisitions are often undertaken from positions of relative strength.[123]

Post-merger capital efficiency, however, deteriorates meaningfully. The mean post-merger ROIC declines to 11.1 percent, closely approximating the sample mean WACC of 11.0 percent. As a result, the average ROIC–WACC differential is slightly negative, indicating that, on average, large strategic mergers fail to generate economic returns in excess of the cost of capital. This pattern is consistent with prior findings documenting persistent merger underperformance when evaluated using operating performance measures rather than short-term market reactions.[12]

Importantly, only a minority of transactions in the sample generate post-merger ROIC exceeding WACC, reinforcing the view that value creation in large strategic mergers is the exception rather than the norm. Revenue-synergy-dominant transactions and promoter-controlled firms are disproportionately represented among underperforming outcomes, providing preliminary support for the study's central hypotheses.[489]

Table 2. Descriptive Statistics

Variable	Mean	Median	Std. Dev.	Min	Max
Pre-merger ROIC (%)	13.3	13.2	1.2	10.6	15.2
Post-merger ROIC (%)	11.1	11.2	1.5	8.4	13.7
WACC (%)	11.0	11.0	0.3	10.5	11.5
ROIC − WACC (%)	−0.2	−0.3	1.4	−3.1	2.7
Revenue synergy dummy	0.47	0	-	0	1
Promoter governance dummy	0.56	1	-	0	1

The descriptive statistics indicate that acquiring firms enter large strategic mergers from positions of relatively strong operating performance, with a mean pre-merger ROIC of 13.3%, well above the sample mean WACC of 11.0%. Post-merger ROIC declines to an average of 11.1%, resulting in a slightly negative mean ROIC–WACC differential. This pattern suggests that post-merger underperformance is not driven by pre-existing operational weakness but emerges following the transaction. The distribution further indicates that only a minority of mergers generate post-merger returns exceeding the cost of capital, underscoring that economic value creation in large strategic mergers is the exception rather than the norm.

5.2 Synergies and Post-Merger Capital Performance

Table 3 reports ordinary least squares regression results examining the association between synergy characteristics and post-merger capital performance, measured as the ROIC–WACC differential. Across model specifications, mergers primarily justified by revenue synergies are associated with significantly lower post-merger capital performance relative to cost-synergy-dominant transactions.

The coefficient on the revenue synergy dummy is negative and statistically significant at conventional levels, indicating that reliance on revenue synergies is associated with weaker post-merger capital outcomes even after controlling for pre-merger performance and industry effects. This finding is consistent with prior research indicating that revenue synergies are **empirically more difficult to realize** than cost synergies due to their dependence on customer behavior, competitive responses, and organizational coordination.[456]

Pre-merger ROIC is positively associated with post-merger ROIC–WACC, suggesting partial persistence in firm-level operating efficiency. However, this effect does not offset the negative association between revenue-synergy dominance and post-merger capital performance. Together, these results provide empirical support for Hypothesis 2 and align with the conceptualization of synergy illusion as an ex ante overstatement of value-creation potential.[4]

Table 3 reports OLS regression results examining the relationship between synergy type and post-merger capital performance. Revenue-synergy-dominant transactions are associated with significantly lower ROIC–WACC outcomes, supporting Hypothesis 2.

Table 3. Synergies and Post-Merger Capital Performance (OLS)

Dependent variable: ROIC − WACC

Variables	(1)	(2)
Revenue synergy dummy	−1.18**	−1.04**
	(0.46)	(0.44)
Pre-merger ROIC	0.42**	0.39**
Industry fixed effects	Yes	Yes
Governance controls	No	Yes

Observations	32	32
Adjusted R^2	0.31	0.36

The negative coefficient on the revenue synergy dummy indicates that mergers primarily justified by revenue synergies generate post-merger ROIC–WACC outcomes approximately 1.0–1.2 percentage points lower than cost-synergy-dominant transactions, holding pre-merger performance and industry effects constant. Given a mean ROIC–WACC close to zero, this magnitude is economically meaningful, often sufficient to shift a transaction from marginal value creation to value destruction. The positive coefficient on pre-merger ROIC suggests partial persistence in operating efficiency but does not offset the adverse capital effects associated with revenue-synergy-dominant merger rationales.

5.3 Governance Effects

Table 4 extends the analysis by incorporating governance variables and interaction effects. Promoter-dominated firms exhibit significantly weaker post-merger capital performance than professionally managed firms, controlling for synergy type, pre-merger performance, and industry effects. This result is consistent with governance-based explanations emphasizing weaker internal challenge mechanisms and greater reliance on strategic conviction in concentrated ownership structures.[8][9][10]

The interaction term between promoter control and revenue-synergy dominance is negative and statistically significant, indicating that the adverse capital effects of revenue-driven merger rationales are amplified in promoter-controlled firms. This finding suggests that governance structures **are associated with differences in how optimistic strategic narratives coincide with post-merger capital outcomes**. Rather than reflecting isolated managerial bias, synergy illusion appears to be reinforced institutionally through governance arrangements that limit effective scrutiny of strategic assumptions.[10][13]

Collectively, these results support Hypothesis 3 and strengthen the interpretation of synergy illusion as a system-level phenomenon shaped by both strategic narratives and organizational governance.

Table 4 introduces governance variables and interaction effects. Promoter-controlled firms exhibit significantly weaker capital outcomes, and the interaction between promoter control and revenue synergy dominance is negative and significant, supporting Hypothesis 3.

Table 4. Governance Effects and Synergy Illusion (OLS)

Dependent variable: ROIC − WACC

Variables	**(1)**	**(2)**
Revenue synergy dummy	−0.96*	−0.81*
Promoter governance dummy	−0.88**	−0.76**
Revenue synergy × Promoter	−0.71*	−0.68*

Pre-merger ROIC	0.36**	0.33**
Industry fixed effects	Yes	Yes
Observations	32	32
Adjusted R^2	0.41	0.44

Promoter-controlled firms exhibit post-merger ROIC–WACC outcomes approximately 0.7–0.9 percentage points lower than professionally managed firms, conditional on synergy type and pre-merger performance. The negative and significant interaction between promoter control and revenue-synergy dominance indicates that the capital underperformance associated with revenue-driven merger rationales is amplified in concentrated governance structures. Economically, this interaction suggests that governance arrangements condition the extent to which optimistic synergy narratives translate into weaker realized capital returns.

5.4 Likelihood of Value Creation

Assess robustness, Table 5 reports logit regression results using a binary dependent variable equal to one if post-merger ROIC exceeds WACC and zero otherwise. The results are directionally consistent with the continuous ROIC–WACC analysis. Revenue-synergy-dominant transactions exhibit a significantly lower probability of generating returns above the cost of capital, as reflected in odds ratios below unity.[45]

Promoter-controlled firms are similarly less likely to achieve post-merger value creation, even after controlling for pre-merger operating performance and industry effects. Pre-merger ROIC remains positively associated with the likelihood of value creation, but its effect is insufficient to overcome the negative influence of revenue-synergy dominance and promoter control.[123]

Additional robustness checks using alternative performance windows and scaling approaches yield qualitatively similar results and are reported in Appendix C and Appendix D. Together, these findings reinforce the conclusion that post-merger underperformance is systematic rather than episodic and is closely linked to the nature of synergy claims and governance structures at the time of deal approval.[1112]

To assess robustness, Table 5 reports logit regressions using a binary dependent variable equal to one if post-merger ROIC exceeds WACC. Revenue-synergy dominance and promoter control significantly reduce the probability of value creation.

Additional robustness checks using alternative performance windows and variable scaling are reported in **Appendix C**.

Table 5. Likelihood of Value Creation (Logit Models)

Variables	Odds Ratio
Revenue synergy dummy	0.42**
Promoter governance dummy	0.51*
Pre-merger ROIC	1.31**
Industry fixed effects	Yes
Observations	32

Pseudo R^2	0.29

Odds ratios below unity indicate a reduced likelihood of post-merger value creation, defined as ROIC exceeding WACC. Revenue-synergy-dominant transactions are associated with approximately a 58% lower likelihood of generating returns above the cost of capital relative to cost-synergy-dominant mergers. Promoter-controlled firms similarly exhibit a lower probability of value creation. While higher pre-merger ROIC increases the likelihood of post-merger value creation, its effect is insufficient to offset the negative influence of revenue-synergy dominance and concentrated governance structures.

Complementary binary outcome models estimating the likelihood of post-merger value creation are reported in **Appendix D**.

6. Discussion

This study set out to examine why large-scale strategic mergers continue to underperform capital expectations despite decades of managerial experience, advisory sophistication, and academic scrutiny. The results provide consistent evidence that post-merger operating performance, measured through return on invested capital relative to the cost of capital, falls short of the benchmarks implied at deal inception. Importantly, this underperformance is not confined to isolated cases or specific industries, but reflects a systematic pattern associated with how synergies are conceptualized, justified, and evaluated in large strategic transactions.[12]

6.1 Reinterpreting Merger Failure: From Execution to Capital Allocation

Much of the existing literature attributes merger underperformance to post-deal integration challenges, cultural misalignment, or unforeseen environmental shocks.[456] While these factors undoubtedly affect realized outcomes, the findings of this study suggest that they represent only part of the explanation. The consistent inability of large strategic mergers to earn returns above the cost of capital **is consistent with explanations emphasizing ex ante decision-making factors** rather than ex post execution alone.[12]

By reframing M&A as a capital allocation decision, this study shifts analytical attention away from how mergers are integrated toward how they are justified. Synergy projections, which form the cornerstone of strategic merger rationales, appear systematically optimistic when evaluated against realized capital outcomes. This finding challenges the implicit assumption that merger failures primarily reflect implementation breakdowns and instead highlights the role of biased expectations embedded in deal approval processes.[411]

6.2 The Role of Synergy Type in Capital Outcomes

The differential performance observed between revenue-synergy-driven and cost-synergy-driven mergers provides further insight into the nature of synergy illusion. Revenue synergies are inherently uncertain, relying on customer adoption, cross-organizational coordination, and competitive responses that are difficult to predict or control. Prior research has long noted the fragility of revenue synergy realization relative to cost-based efficiencies.[456]

The results indicate that reliance on revenue synergies is associated with significantly weaker post-merger capital outcomes than reliance on cost synergies. This pattern suggests that revenue synergies often function less as realistic economic forecasts and more as aspirational narratives that legitimize acquisition premiums and strategic ambition. In contrast, cost synergies, while not risk-free, are more closely tied to identifiable actions and therefore exhibit greater alignment with realized capital performance.[4]

6.3 Governance Structures and the Reinforcement of Synergy Illusion

The governance-related findings underscore the institutional nature of synergy illusion. Firms characterized by concentrated ownership or dominant promoter control exhibit systematically weaker post-merger capital performance than professionally managed firms. This result is consistent with governance theories emphasizing the importance of internal challenge mechanisms and independent oversight in large capital allocation decisions.[8910]

The significant interaction between promoter control and revenue-synergy dominance further suggests that governance structures condition the extent to which optimistic strategic narratives translate into capital misallocation. In environments where strategic conviction is concentrated among a small group of decision-makers, Synergy assumptions **may face relatively limited scrutiny** during deal evaluation. Over time, such dynamics can institutionalize optimism, reducing the likelihood of corrective learning even when prior transactions underperform. [10,13]

6.4 Synergy Magnitude as a Signal of Strategic Overreach

One of the most revealing findings of the analysis is the negative association between the magnitude of projected synergies and post-merger capital performance. Rather than signaling superior strategic fit or execution capability, larger synergy projections are associated with greater underperformance relative to the cost of capital. This inverse relationship supports the central premise of synergy illusion: ambitious synergy estimates may reflect heightened ex ante bias rather than enhanced value creation potential.[4]

This finding also helps explain why learning effects in M&A appear limited. If synergy projections function primarily as legitimizing devices rather than testable capital commitments, their failure to materialize does not necessarily trigger meaningful organizational learning. Instead, underperformance may be attributed to external shocks or integration difficulties, preserving the underlying strategic narrative and allowing similar assumptions to recur in subsequent transactions.[36]

6.5 Boundary Conditions of Synergy Illusion

The concept of synergy illusion is most applicable to large-scale strategic mergers in which projected synergies form the primary justification for acquisition premiums and capital commitment. It is less relevant in transactions motivated predominantly by financial restructuring, distress resolution, or short-term arbitrage, where value creation mechanisms differ materially. Similarly, small tuck-in acquisitions or narrowly defined capability acquisitions with limited capital intensity may not exhibit the same degree of synergy-driven bias.[711]

These boundary conditions suggest that synergy illusion is not a universal feature of all mergers, but a context-specific phenomenon arising in transactions characterized by scale, strategic ambition, and narrative-driven justification.

6.6 Theoretical Implications

The introduction of synergy illusion contributes to both strategy and corporate finance literatures in several ways. First, it integrates agency-based and behavioral explanations into a system-level construct that captures recurring patterns in strategic investment decision-making.[89] Second, it re-centers capital efficiency as a core criterion for evaluating strategic choices, addressing long-standing concerns that strategy research has become decoupled from economic value creation.[1112]

Third, the findings highlight the role of strategic discourse and narrative in shaping capital allocation outcomes, extending existing work on legitimacy and sensemaking in strategic decisions. By treating synergy illusion as an observable and measurable phenomenon, this study opens avenues for empirical research on strategic bias and capital misallocation beyond the M&A context.[13]

6.7 Managerial Implications

For practitioners, the findings suggest that conventional merger evaluation frameworks may systematically underestimate downside risk. Boards and executives should exercise caution in treating synergy projections as reliable indicators of value creation, particularly when they are large, revenue-driven, or central to the strategic narrative used to justify acquisition premiums. Embedding explicit ROIC–WACC thresholds into deal approval and post-merger evaluation processes may help counteract synergy illusion by reintroducing capital discipline into strategic decision-making.[1112]

7. Conclusion and Implications

7.1 Implications for Strategy and Corporate Finance Theory

This study contributes to strategy and corporate finance literature by introducing **synergy illusion** as a distinct construct that explains persistent capital underperformance in large-scale strategic mergers. By demonstrating that post-merger ROIC frequently fails to exceed WACC, the findings challenge the dominant tendency in strategy research to treat mergers primarily as vehicles for competitive repositioning or growth. Instead, the results reaffirm that mergers are fundamentally capital allocation decisions whose success must be evaluated in absolute economic terms.

The study also bridges a gap between behavioral explanations of merger activity and capital allocation theory. While prior research has documented managerial overconfidence, agency problems, and integration challenges, this paper shows how these factors coalesce into a systematic pattern of ex ante optimism that is embedded in merger justification itself. In doing so, it reframes M&A underperformance as a predictable outcome of institutionalized decision-making processes rather than as a series of isolated execution failures.

By anchoring performance evaluation to the ROIC–WACC framework, the study extends strategy research beyond relative performance measures and market reactions. This approach provides a clearer benchmark for value creation and highlights the limitations of growth-oriented narratives that are decoupled from capital efficiency. The findings suggest that future strategy research would benefit from more explicit integration of capital discipline into analyses of strategic investment decisions.

7.2 Implications for Governance and Managerial Practice

The findings have important implications for boards, senior executives, and investors involved in merger decision-making. First, they suggest that synergy projections should be treated with greater skepticism, particularly when they are large, revenue-driven, or central to the strategic narrative used to justify acquisition premiums. Rather than accepting synergy estimates as forward-looking indicators of value creation, boards should interrogate the assumptions, contingencies, and capital requirements embedded in these projections.

Second, the evidence on governance structures indicates that effective challenge mechanisms matter. Firms with concentrated ownership or dominant promoter control appear more susceptible to synergy illusion, underscoring the importance of independent oversight and capital discipline in strategic decision-making. Embedding explicit post-merger accountability-such as tracking realized ROIC against pre-deal expectations-may help mitigate optimistic bias and promote organizational learning.

Third, the results call for a rebalancing of strategic and financial logics in merger evaluation. While strategic fit and long-term positioning remain important, they should not substitute for rigorous assessment of whether a transaction is likely to generate returns above the cost of capital. Treating M&A as one of several competing uses of capital, rather than as a uniquely transformative strategic act, may reduce the incidence of value-destroying acquisitions.

7.3 Limitations and Future Research Directions

As with all archival studies, this research has limitations that point to opportunities for future inquiry. The analysis relies on management-disclosed synergy projections, which vary in transparency and granularity across firms and jurisdictions. While this reflects the information environment faced by boards and investors at the time of deal approval, future studies could complement archival data with internal planning documents or interviews to gain deeper insight into how synergy assumptions are formed and challenged.

In addition, while ROIC–WACC provides a robust measure of capital efficiency, it may not fully capture long-term option value or strategic flexibility arising from certain mergers. Longitudinal studies extending beyond five years could explore whether some strategic benefits materialize over longer horizons, and under what conditions such delayed value creation justifies initial capital underperformance.

Future research could also examine synergy illusion in other strategic investment contexts, such as large-scale capital expenditures, diversification moves, or sustainability-driven investments. Extending the concept beyond M&A may help build a broader theory of strategic capital misallocation.

7.4 Conclusion

Despite decades of experience and analysis, large-scale strategic mergers continue to fall short of their capital expectations. This study shows that such underperformance is not merely the result of execution challenges or unforeseen disruptions, but is systematically linked to how synergies are envisioned and deployed in merger justification. By introducing the concept of **synergy illusion**, the paper reframes M&A failure as a capital allocation problem rooted in ex ante decision-making and strategic discourse.

Recognizing synergy illusion has important implications for both theory and practice. For scholars, it highlights the need to integrate capital efficiency more explicitly into strategy research. For practitioners, it underscores the risks of allowing compelling strategic narratives to overshadow disciplined evaluation of economic returns. Ultimately, treating mergers not as exceptional strategic events but as investments subject to the same capital constraints as any other may be essential to improving long-term value creation.

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Appendix A: Sample Construction and Exclusion Criteria

This study employs a disciplined, disclosure-driven sample construction process to examine post-merger capital performance in large-scale strategic mergers. The initial universe consisted of large mergers and acquisitions undertaken by Indian-listed firms between 2010 and 2023. Transactions were identified using publicly available regulatory filings, annual reports, and investor presentations.

The sample was refined through a multi-stage filtering process. First, transactions were required to meet a materiality threshold, defined as either an announced deal value exceeding USD 1 billion or representing at least 20% of the acquiring firm's pre-deal market capitalization. Second, transactions were required to be explicitly justified using strategic synergies, such as scale expansion, market access, platform integration, or capability combination. Transactions motivated primarily by financial restructuring, distress resolution, or regulatory compulsion were excluded.

Third, only completed transactions were retained to ensure post-merger performance could be evaluated. Fourth, sufficient post-merger financial data were required, defined as the availability of consolidated financial statements for at least three years following deal completion. Finally, transactions involving regulated banking entities and financial institutions subject to statutory capital requirements were excluded to preserve comparability of ROIC–WACC measures.

Applying these criteria resulted in a final sample of 32 large-scale strategic mergers. The sample size reflects a trade-off between breadth and disclosure depth and is consistent with prior archival studies examining large strategic transactions.

Appendix B: Variable Definitions and Measurement

Post-Merger Capital Performance

Post-merger performance is measured using return on invested capital (ROIC), calculated as net operating profit after tax (NOPAT) divided by average invested capital. NOPAT is derived from consolidated operating profit adjusted for the effective tax rate reported in the firm's financial statements. Invested capital is defined as the sum of total equity and interest-bearing debt, net of cash and cash equivalents. Average invested capital is computed using beginning- and end-of-year balances.

To capture sustained performance rather than short-term integration volatility, post-merger ROIC is measured as the average ROIC over years three to five following transaction completion. Capital

performance is benchmarked against the firm's weighted average cost of capital (WACC). The primary dependent variable is the ROIC–WACC differential.

Cost of Capital

WACC is calculated using a standard formulation that combines the cost of equity and the after-tax cost of debt. The cost of equity is estimated using the capital asset pricing model (CAPM), with firm- or sector-level beta estimates and prevailing long-term government bond yields as the risk-free rate. The cost of debt is measured as the effective interest rate derived from interest expense and average debt balances. A single-point WACC is applied to each firm to reduce measurement noise.

Synergy Variables

Synergy characteristics are extracted from management disclosures at the time of deal announcement. Synergy type is coded as a categorical variable distinguishing between revenue-synergy-dominant and cost-synergy-dominant transactions, based on the relative emphasis and quantitative disclosure in investor communications. Where both types are disclosed, the dominant synergy rationale is identified based on magnitude and narrative emphasis.

Governance Variables

Governance structure is captured using a binary indicator distinguishing promoter-controlled firms from professionally managed firms. Firms are classified as promoter-controlled when ownership concentration and board control suggest dominant influence over strategic decisions. Professionally managed firms are characterized by dispersed ownership and managerial control subject to board oversight.

Appendix C: Robustness Checks

Several robustness checks are conducted to assess the stability of the main findings. First, alternative post-merger performance windows are examined by averaging ROIC over years two to four following transaction completion. Results remain qualitatively similar, with revenue-synergy-dominant transactions continuing to exhibit inferior ROIC–WACC outcomes.

Second, ROIC–WACC values are winsorized at the 5th and 95th percentiles to mitigate the influence of extreme observations. The direction and significance of key coefficients remain unchanged. Third, projected synergies are alternatively scaled by transaction value rather than invested capital. The negative association between synergy magnitude and post-merger capital performance persists under this specification.

Collectively, these checks indicate that the results are not driven by specific measurement choices or outliers.

Appendix D: Binary Value-Creation Models

To complement the continuous ROIC–WACC analysis, binary outcome models are estimated using a value-creation indicator equal to one when post-merger ROIC exceeds WACC and zero otherwise. Logit

regressions are estimated with synergy type, governance structure, and pre-merger ROIC as explanatory variables, along with industry fixed effects.

Consistent with the main results, revenue-synergy-dominant transactions exhibit a significantly lower probability of value creation. Promoter-controlled governance structures are also associated with a reduced likelihood of post-merger ROIC exceeding the cost of capital. These findings reinforce the main conclusions and indicate that results are not driven by extreme ROIC observations.

Appendix E: Governance Classification Logic

Governance classification is based on publicly disclosed ownership and board composition information. Firms are classified as promoter-controlled when a concentrated ownership structure exists alongside board influence that enables dominant shareholders to shape strategic decisions. Indicators include promoter shareholding levels, board representation, and executive leadership background.

Professionally managed firms are characterized by dispersed ownership, independent board oversight, and professional management teams without controlling shareholder dominance. This classification approach is consistent with prior studies examining governance effects in emerging market contexts and is applied consistently across the sample.