

# Information Systems Compatibility in M&A Pre-combination Phase

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## Abstract

This paper addresses the strategic importance of information systems (IS) compatibility and complementarity in evaluating organizational fit during the pre-combination (pre-merger) phase of mergers and acquisitions (M&As). Drawing on the author's doctoral research and updated literature, the study develops a refined conceptual framework (underpinning the IS-OFAM model) that integrates IS alignment with strategic, cultural, and operational fit dimensions. Through grounded theory-based analysis of two case studies—one in financial services and one in food processing—the paper identifies patterns of IS oversight, cultural-technical misalignment, and underleveraged IS assets. Findings show that IS compatibility often goes unassessed, while IS complementarity is undervalued as a source of post-merger innovation. The proposed IS-Organizational Fit Alignment Model (IS-OFAM) provides this conceptual framework by embedding IS assessments into early-stage due diligence and planning. The research contributes to M&A theory and practice by linking business information systems to pre-combination diagnostics and integration strategy.

**Keywords:** Business informatics, Information systems, Mergers and acquisitions, Organizational fit

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## Introduction

Mergers and acquisitions (M&As) remain one of the most dynamic forces reshaping global industries, with 2023 and 2024 witnessing a resurgence in cross-border deal activity driven by digital consolidation, sector convergence, and post-pandemic strategic repositioning. However, despite decades of scholarly and managerial attention, the failure rate of M&As remains persistently high — often attributed to insufficient attention to organizational fit in the pre-combination (pre-merger) phase (Hitt et al., 2023).

Among the many facets of organizational fit, the compatibility and complementarity of information systems (IS) are increasingly recognized as pivotal determinants of post-merger success, particularly in knowledge-intensive sectors and digitally dependent business models (Henningsson et al., 2022).

Existing literature on M&A success factors has traditionally emphasized strategic, financial, or cultural fit, while IS integration has been underexplored as a driver of early-stage M&A readiness. This paper aims to fill this gap by investigating how IS compatibility and complementarity influence the organizational fit dimension of pre-combination M&A planning. Building on the author's prior doctoral research, which developed a comprehensive pre-combination M&A framework based on qualitative analysis of two case studies in the Slovenian financial and food-processing sectors, this paper updates and refines the model through integration with recent scholarly advances (e.g., the DySIIM model for managing IS integration in M&As, Henningsson & Carlsson, 2011; and dynamic capabilities theory, van de Wetering, Mikalef, & Pateli, 2018).

We position IS compatibility as an enabler of strategic alignment and IS complementarity as a source of innovation capacity and synergy potential. This dual lens is supported by recent literature emphasizing that IS is not merely a post-merger integration issue but a strategic asset that can shape acquisition rationale, due diligence priorities, and integration pathways (Zaheer et al., 2022; Bruyaka et al., 2020).

## Organizational fit assessment related to business IS

Organizational fit in M&A refers to the congruence between the structures, cultures, and operational systems of the merging firms. In contemporary M&A literature, this notion has expanded to incorporate the alignment of business information systems (IS), which significantly affects both synergy realization and post-merger integration (Mehta & Hirschheim, 2007).

One of the primary barriers to practical organizational fit assessment is cognitive bias. Decision-makers often rely on heuristics that lead to optimistic projections, such as overestimating IS compatibility or underestimating integration costs (Kroon, 2023; Santana et al., 2024). Strategic alignment is also hindered by information asymmetry, in which insufficient IS due diligence leads to poorly informed decisions about technological or process compatibility (Benbasat & Reich, 2000).

A further layer of complexity is cultural. IS reflects and reinforces institutional routines and governance models (Zaheer et al., 2022). Mismatches in these areas—such as centralized versus decentralized IT governance—can significantly disrupt integration, even when technological compatibility is high (Quang, 2024).

Recent studies also highlight how the type and degree of IS integration (e.g., coexistence, absorption, transformation) must align with M&A motives (Rolland, 2010; Henningsson & Kettinger, 2016). IS complementarity, or the strategic advantage of differing IS capabilities, remains underleveraged despite its innovation potential (Bruyaka et al., 2020; Henningsson et al., 2022).

Recent industry analyses underscore the growing role of AI in M&A planning and integration. Bain & Company (2025) finds that generative AI can accelerate target identification, due diligence, and post-merger integration tasks—enabling teams to execute with fewer resources and shorter timelines (Bain & Company, 2025).

Likewise, Dentons (2025) reports that 64 percent of corporate leaders plan to use M&A to bolster their AI capabilities within the next year, highlighting the need for early diagnostic assessments of AI-tool compatibility (Dentons, 2025). Future extensions of the IS-OFAM framework could add explicit AI-readiness items—such as assessing the target's and acquirer's use of AI-based integration platforms or machine-learning-driven data-mapping tools—to the Fit Audit.

## Methodological tools and conceptual frameworks

Various methodologies have been proposed to assess IS-organizational fit. For instance, Mendoza et al. (2006) outline critical success factors for IS integration, while Shi et al. (2017) introduce cross-efficiency evaluation models to measure compatibility from both the bidder and target perspectives. Garzella and Fiorentino (2014) propose a synergy measurement model that integrates strategic, operational, and financial factors to support due diligence.

Gebhardt (2017) emphasizes the value of behavioral due diligence in understanding managerial attitudes toward IS integration. Thelisson (2021) uses a case study approach to explore how cooperation dynamics—simultaneous cooperation and competition—can derail IS integration planning. Similarly, Wartini-Twardowska and Twardowski (2016) propose a framework for assessing risk when combining heterogeneous IS-dependent business models.

The literature consistently argues that effective IS integration requires early planning, cultural sensitivity, and strategic alignment. However, organizational fit assessments in M&As frequently marginalize IS considerations, relegating them to the technical domain. This neglect persists despite evidence that IS infrastructures often reflect broader organizational logics and leadership structures (Henningsson et al., 2022).

In sum, evaluating organizational fit in M&As is a multi-layered process requiring integrated consideration of strategic, cultural, technological, and human dimensions. The literature calls for a new synthesis—one that merges IS insights with organizational theory to improve pre-combination planning.

## Methodology

### *Research approach*

This study adopts a conceptual research approach grounded in literature synthesis and qualitative theory development. Unlike empirical studies that rely solely on case data, this paper integrates findings from peer-reviewed publications, case analyses, and grounded theory constructs developed initially in the author's doctoral research (Naraločnik, 2020).

The aim is to develop a refined model of IS-organizational fit applicable during the pre-combination phase of M&As.

### *Data sources and selection criteria*

The literature informing this paper spans journal articles, industry reports, and authoritative texts on M&A strategy, information systems integration, and organizational behavior. Selection criteria included recency (preference for 2016–

2024), peer-reviewed status, and explicit focus on IS compatibility, organizational fit, or M&A outcomes. Sources were retrieved from academic databases such as Scopus, JSTOR, ScienceDirect, and the AIS eLibrary.

To ensure our conceptual model reflects real organizational practice, we also drew on two Slovenian M&A events from the author's doctoral research (Naraločnik, 2020): one in the food-processing sector, where preclosing misalignment of legacy ERP/CRM systems throttled expected distribution synergies, and one in the financial-services sector, where incompatible underwriting platforms blocked real-time analytics and delayed product rollouts.

### *Analytical strategy*

The research involved a structured thematic analysis, which included:

- Open Coding: Identification of recurring concepts (e.g., IS compatibility, cultural misfit, governance divergence),
- Axial Coding: Grouping codes into categories such as technical integration, strategic alignment, and behavioral factors,
- Selective Coding: Integration of categories into a theoretical construct underpinning the IS-Organizational Fit Alignment Model (IS-OFAM).

The analysis was iterative and informed by comparisons between academic literature and insights from two previously studied M&A cases - one in financial services and one in food processing.

These cases provided empirical grounding for the theoretical categories and exposed recurring patterns of IS misalignment and overlooked planning opportunities. In keeping with grounded-theory best practices, our open, axial, and selective coding cycles were not static. After the initial round of open coding on case interviews and documents, we conducted follow-up literature scans (covering publications through early 2025) to identify any new concepts or dimensions.

These insights were then mapped back onto our codebook—leading to refinement of category definitions (for example, expanding “governance fit” to include AI-tool compatibility) and the addition of two subcodes under Cultural & Governance Fit (“data-ownership norms” and “AI-integration governance”).

This iterative cross-referencing ensured that our emergent IS-OFAM framework both honored the raw case data and remained fully aligned with the latest scholarly and industry advances.

## **Findings**

### *Synthesis of thematic insights from literature*

The literature review revealed that organizational fit in M&As is significantly influenced by the strategic alignment and operational interplay of the involved firms' information systems. While strategic, cultural, and human aspects have long been emphasized, digital compatibility and the capacity to leverage complementary IS assets remain underexplored.

The synthesis highlights that firms often misjudge or overlook IS interdependencies, treating them as post-merger technicalities rather than strategic assets.

### *Four key fit dimensions:*

- IS Compatibility: This dimension relates to infrastructure coherence—whether platforms, data formats, and network architecture are interoperable. M&A

failures often stem from unanticipated incompatibility at this level, leading to delayed or fragmented integration efforts.

- **Functional Complementarity:** Beyond compatibility, mergers can benefit from unique IS capabilities. For example, a target firm's advanced analytics or CRM system may offer strategic value if integrated correctly. This aspect is frequently undervalued during pre-combination evaluations.
- **Cultural and Governance Fit:** Differences in IT governance models, decision-making authority, and data-ownership norms can hinder integration. Firms with divergent IT cultures (e.g., centralized vs. decentralized) may struggle to merge even well-aligned infrastructures. Individual competencies—cognitive, affective, and conative skills—also shape integration outcomes, and neglecting these differences can lead to misalignment within the combined organization (Bertoncelj & Kovač, 2008).
- **Pre-combination IS Planning Practices:** The extent to which IS is factored into early due diligence varies widely. Leading firms conduct IS audits, simulate integration scenarios, and include IT teams in M&A negotiations. Others delegate IS integration planning to post-merger teams, often too late.

### *Emergent patterns in literature*

Several trends emerged from the review:

- **Early IS involvement improves outcomes:** Firms that integrate IS teams into early evaluation stages exhibit higher synergy realization and faster post-merger stabilization (Henningsson & Kettinger, 2016; Gebhardt, 2017).
- **Overreliance on strategic rationale leads to blind spots:** When M&As are driven primarily by market access or cost synergies, IS alignment is deprioritized, increasing integration risk.
- **Behavioral factors matter:** Managerial resistance, misaligned competencies, and cultural inertia often derail technically feasible integrations (Quang, 2024; Gebhardt, 2017).

### *Link to framework development*

These findings directly informed the construction of the IS-Organizational Fit Alignment Model (IS-OFAM). The model maps how IS compatibility and complementarity intersect with broader organizational dimensions, providing a tool for assessing pre-combination alignment risks. It integrates technical and behavioral insights to offer a comprehensive diagnostic perspective.

## **Discussion**

### *Theoretical implications*

This study expands the organizational fit discourse in M&A literature by embedding information systems (IS) into the pre-combination analysis of integration potential. Traditional frameworks have disproportionately emphasized cultural and strategic alignment while treating IS integration as a downstream, post-merger exercise. However, our findings—and the IS-OFAM model—suggest that IS artifacts and practices are core to organizational identity and capability.

Specifically, IS compatibility supports strategic alignment, ensuring that operational systems reinforce shared goals, while IS complementarity enhances innovation capacity by leveraging distinct capabilities across the merging firms. These insights align with emerging research on digital synergy realization (Henningsson et al., 2022;

Zaheer et al., 2022) and provide a conceptual bridge between IS architecture and M&A strategy.

The IS-OFAM model also reframes organizational fit as a multidimensional construct, in which the technical, functional, and governance dimensions must be evaluated jointly. It further illustrates that fit is not only a question of similarity (compatibility) but also of value-adding diversity (complementarity).

### *Practical Relevance*

From a managerial perspective, the findings reinforce the need to integrate IS assessments into early-stage M&A planning.

Practitioners should:

- Include IT leadership in due diligence and scenario planning.
- Conduct comprehensive due diligence—including cultural, operational, and IS assessments—to identify misalignments early in the pre-combination phase (Marks & Mirvis, 2015).
- Conduct IS compatibility audits before integration blueprints are finalized.
- Leverage IS complementarities for differentiation, not just integration.
- Anticipate governance conflicts and develop harmonization roadmaps.
- Treat IS integration planning as a strategic process, not a checklist.

The IS-OFAM model provides an actionable structure for these practices and can serve as a diagnostic tool for integration readiness. This is especially critical in industries where digital infrastructure determines agility, compliance, or customer retention (e.g., fintech, healthcare, logistics).

### *Reframing Business Information Systems*

Crucially, this paper challenges the view of business information systems as neutral enablers of business strategy. Instead, it advocates for recognizing IS as strategic actors that shape and are shaped by organizational design, power structures, and post-merger identity.

By repositioning IS at the center of M&A fit diagnostics, the study contributes to both the IS strategy literature and the organizational design field, offering a more integrated lens for understanding how synergies are either realized or lost.

### *IS-Organizational Fit Alignment Model (IS-OFAM)*

The IS-Organizational Fit Alignment Model (IS-OFAM, Figure 1) provides a conceptual framework that positions IS alignment at the core of pre-combination M&A diagnostics.

It emphasizes the dynamic interaction between IS capabilities and organizational integration potential across four key dimensions:

- **IS Compatibility**  
Evaluates the congruence of IT architectures, platforms, and data structures between firms.
- **Functional Complementarity**  
Identifies the strategic value derived from unique IS assets—e.g., proprietary analytics, CRM platforms, ERP efficiencies.
- **Cultural and Governance Fit**  
Assesses alignment of IS governance norms, decision rights, autonomy, and interdepartmental collaboration protocols.

- Pre-combination IS Planning Maturity  
Measures how early and thoroughly IS integration is incorporated into the strategic planning and due diligence process.

This four-dimensional structure reflects both integration readiness and innovation potential, enabling managers to forecast challenges and opportunities before formal integration begins.

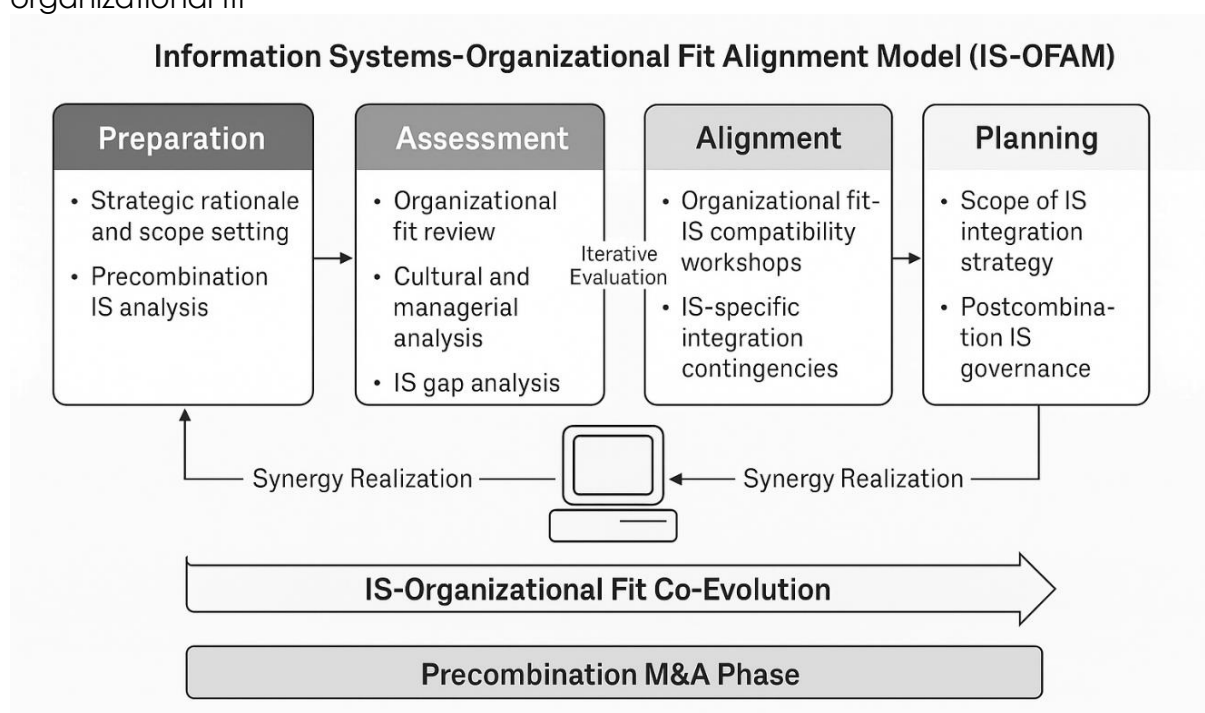
### Further research

We recommend four avenues for future research:

- Empirical Validation: Test the IS-OFAM framework across different M&A contexts to assess predictive power and diagnostic accuracy.
- Quantitative Analysis: Measure the correlation between IS-OFAM alignment scores and post-merger integration success metrics.
- Technological Advancements: Explore how AI-enabled IS planning tools impact fit assessment and integration forecasting.
- Comparative Studies: Investigate how industry-specific factors (e.g., healthcare vs. fintech) mediate IS-organizational fit dynamics.

Figure 1

Model The IS-OFAM Model: A conceptual framework for pre-combination IS - organizational fit



Source: Authors' work

## Conclusion

This paper advances the understanding of M&A success by repositioning information systems (IS) as a foundational lens for assessing organizational fit during the pre-combination phase. By synthesizing recent literature and aligning it with a refined conceptual approach, we propose the IS-Organizational Fit Alignment Model (IS-OFAM) as a practical and theoretical tool for M&A planners.

The model integrates IS compatibility and complementarity with structural, cultural, and planning dimensions of fit, offering a multi-layered diagnostic framework.

For integration managers, corporate strategists, and IT leaders, the IS-OFAM model provides a structured approach for early detection of integration challenges and synergy opportunities. In regulatory environments where data governance and digital transformation are increasingly scrutinized, this model also serves as a compliance-oriented planning tool.

As a conceptual contribution, this study relies on secondary data and interpretive synthesis. While the framework is grounded in rigorous scholarship, empirical testing is needed to validate and calibrate its components across sectors, firm sizes, and geographic contexts.

Finally, given that the author conducted the underlying case studies as part of their doctoral research, there is potential for confirmation bias in interpreting interview data and archival materials. To mitigate this, an independent advisor regularly reviewed analytic memos, and triangulation was achieved through cross-checking interview insights with internal audit reports and integration roadmaps.

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