

Theoretical findings on how job architecture contributes to IT delivery performance

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Abstract. *In the modern workplace, as tasks become more complex and organizations undergo constant change, job architecture has evolved into a strategic asset. While existing literature highlights its role in fostering role clarity, driving employee motivation, and promoting adaptability, the influence of job architecture on IT delivery performance, particularly within Agile and high-complexity settings, remains insufficiently explored. This study investigates the extent to which job architecture contributes to IT delivery performance. Through a systematic synthesis of theoretical models and empirical studies from the past five decades, the findings suggest that flexible and integrative job architectures are strongly associated with enhanced IT delivery outcomes. By fostering coordination, decision-making autonomy, and knowledge sharing across teams, job architecture transcends traditional HR frameworks to serve as a foundational structure that drives Agile execution and supports organizational adaptability. This study positions job architecture as a key enabler of high-performance IT delivery and proposes a conceptual model that integrates job architecture with Agile execution principles to enhance organizational coherence and adaptability.*

Keywords: job architecture, IT delivery, agile, coordination, autonomy, role clarity, adaptability.

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Introduction

In today's fast-changing business environment, organizations face increasing task uncertainty and constant change, highlighting the need for effective workforce management strategies. As companies expand and diversify, the strategies they use to structure their teams can have lasting cultural and financial impacts [1]. Job architecture has emerged as an enabler in this context, yet its specific role in enhancing IT delivery performance, especially in Agile and high-complexity environments, is rarely explored.

While previous perspectives recognize the value of clearly defined and adaptable work structures, there remains limited insight into how these elements translate into measurable IT delivery outcomes. Moreover, persistent challenges such as structural rigidity, outdated practices, and inconsistent implementation across sectors highlight the importance of continued study in this area.

This study addresses these gaps by systematically reviewing theoretical models and empirical studies from organizational theory, Agile practices, and systems thinking. It develops a conceptual framework that connects job architecture with operational realities, offering insights into how it can enhance IT delivery performance. Specifically, the research explores three key questions: (1) *How does job architecture influence coordination, decision-making autonomy, and knowledge sharing in Agile environments?* (2) *To what extent can job architecture mitigate challenges related to structural rigidity and evolving workforce demands?* (3) *What conceptual model can encapsulate the relationship between job architecture and IT delivery performance?*

The significance of this work lies in its contribution to both academic understanding and practical applications by positioning job architecture as a dynamic enabler of organizational adaptability and IT delivery performance. Through defining, aligning, and integrating responsibilities and HR practices, job architecture supports career development and organizational goals [2]. Job crafting and relational job design emphasize the role of social interactions in shaping professional roles [3], [4] - providing a foundation for understanding how job architecture fosters role clarity, adaptability, and collaboration (all essential elements for effective IT delivery). Similarly,

literature shows that organizational design (encompassing coordination methods, decision-making frameworks, and information flow) plays a significant role in the effective performance of Agile teams and organizations [5].

Literature review

1. Job architecture

Job architecture is a structured framework that organizes and standardizes roles within an organization by grouping positions into job families and levels of responsibility. It provides clarity on roles, required skills, and career progression, ensuring fairness in pay and alignment with organizational goals [2]. Job architecture focuses on aligning roles with organizational capabilities and fostering collaboration across processes, rewards, and people practices [6].

Further conceptual distinctions involving job architecture depict the construct as the foundation for organizing roles by assigning titles and functional areas, creating a structured system before grade levels are applied. Job leveling builds on this foundation by arranging roles within job families and career paths, emphasizing complexity and progression. Together, these systems are essential for global workforce management, as depicted in Figure 1 [1].

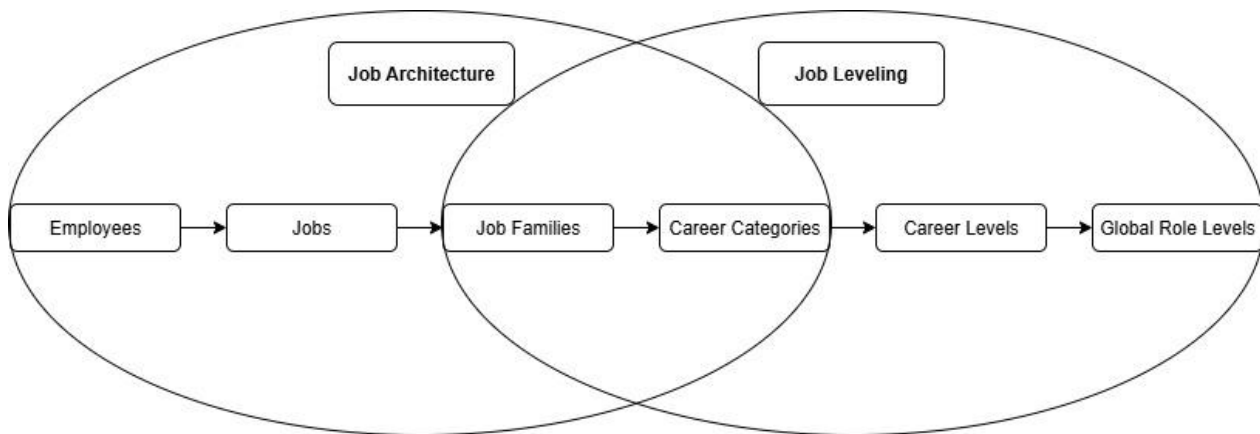


Figure 1: Job Architecture + Job Leveling

Adapted from Green, B. et al.: Global job leveling at Radford: A tailor-made approach for companies driven by innovation

Work design theory complements job architecture by addressing the psychological conditions that support professional performance and satisfaction [7]. Job crafting allows employees to adapt responsibilities to align with personal values and strengths, while relational job design ensures roles inspire prosocial impact and foster social connections [3], [4]. These concepts highlight the human-centric aspects of job architecture, however, they fall short of addressing its operational implications for IT delivery in Agile environments.

In response to evolving work environments, job architecture has been redesigned to ensure role clarity, feedback, and alignment with organizational goals, particularly in alternative work arrangements [8]. This redesign involves breaking tasks into micro-functions to address changes driven by hybrid work, regulatory shifts, and automation [9] - although these adaptations often lack a direct focus on improving IT delivery outcomes.

Job architecture also incorporates competencies and skills categorized into core, leadership, business development, interpersonal, and task-specific types to align roles with organizational needs [10]. It classifies jobs into families and levels to ensure comparability, shaped by processes that promote fairness in pay transparency [11]. However, disruptions such as the COVID-19 pandemic have emphasized the need for updated skills and adaptability to address evolving workforce demands [12], further highlighting the gap in understanding how job architecture can support IT delivery in dynamic environments.

In summary, job architecture is widely recognized as a framework for organizing roles, skills, and rewards, focusing on career progression and equitable pay. While it fosters role clarity, adaptability, and collaboration, its potential as a strategic enabler of IT delivery performance remains underexplored.

2. IT delivery

IT delivery focuses on satisfying users' needs rather than just delivering tangible products. It addresses both the actual need and the user's evolving perception of that need as programs are built, tested, and used. This dynamic nature of software development requires meticulous planning, clear milestones, systematic testing and debugging. Effective IT delivery relies on seamless communication and coordination among teams to overcome organizational challenges and deliver reliable outcomes [13]. While Agile practices like Scrum and XP help mitigate issues such as geographical distances, cultural differences, and communication barriers [14], existing literature often overlooks how structural frameworks like job architecture can further enhance these practices.

Proactively identifying and managing risks during the early stages of IT project lifecycles is critical to minimizing disruptions [15]. Agile teams thrive on high levels of interdependence, seamless communication, and continuous adaptation, which are essential for overcoming teamwork challenges and achieving self-organization [16]. However, most literature focuses on operational aspects, often neglecting how job architecture can systematically support these dynamics.

IT delivery frequently prioritizes immediate business needs, leading to quick fixes that increase complexity and maintenance costs. This highlights the importance of an evolutionary approach that emphasizes collaboration between business and IT [17]. Delays in IT delivery are often caused by low-quality products, slow decision-making, and rigid organizational structures. While product-oriented organizations and formalized business processes can address these issues [18], the potential of job architecture to resolve structural inefficiencies is not fully explored.

Aligning IT delivery with organizational strategies enhances performance, especially with higher levels of IT investment, while governance mechanisms ensure alignment during IT planning, delivery, and change [19]. Frameworks like DORA and the Flow Framework connect software delivery to broader business outcomes, emphasizing speed, stability, quality, satisfaction, and business impact [20]. Nevertheless, traditional metrics often fail to capture the dynamic and subjective aspects of IT-enabled transformations, revealing the limitations of conventional performance measures [21].

In summary, IT delivery integrates organizational, cultural, and methodological factors, emphasizing planning, execution, and coordination as key enablers of performance. While Agile practices address challenges like communication barriers and geographical distances, the literature lacks a focus on how structural tools like job architecture can complement these methodologies.

Methodology

Research Design and Data Collection

The research adopts a qualitative, interpretive approach, focusing on synthesizing existing theoretical models and empirical studies. Guided by principles from organizational theory and Agile practices, it emphasizes adaptability, role clarity, and coordinated systems. This ensures the inclusion of diverse perspectives and theoretical constructs.

Academic resources, including articles, books, and case studies, were sourced from databases such as ScienceDirect, IEEE Xplore, and SpringerLink. These resources span the past five decades, providing a comprehensive view of the evolution of job architecture and its implications for IT delivery in both historical and modern contexts.

To filter bibliographic titles, 15 keywords were used: *Agile*, *team*, *management*, *motivation*, *design*, *work*, *change*, *collaboration*, *leadership*, *culture*, *feedback*, *roles*, *processes*, *goals*, and *communication*. These keywords were chosen to capture the diverse dimensions of human resources and IT practices. For example, *Agile* and *team* reflect the iterative and collaborative nature of modern technical setups, while *management*, *leadership*, and *roles* highlight the structural and strategic alignment. Similarly, *motivation*, *culture*, and *feedback* emphasize the human-centric aspects of job architecture, fostering engagement and adaptability. The inclusion of *design*, *work*, and *processes* ensures a focus on systemic integration, while *goals*, *communication*, and *collaboration* stress the alignment of organizational objectives with operational execution.

Analytical Framework

The analytical framework ensures the reliability and validity of the findings through three key steps. First, conceptual mapping identifies theories and models connecting job architecture to organizational performance. Next, comparative analysis uncovers common themes and patterns across studies, enabling the synthesis of diverse perspectives into a unified conceptual model. Finally, the insights were synthesized into a conceptual model that illustrates how job architecture contributes to improving IT delivery in Agile and dynamic environments. Figures and the conceptual model were created using draw.io, a diagramming tool that ensures clarity and precision in illustrating theoretical relationships and frameworks.

Scope and Limitations

While the systematic review provides strong theoretical insights, the findings remain conceptual and require empirical validation through case studies and/or field research. Potential constraints include challenges such as legacy systems, ingrained organizational cultures, and rigid hierarchical structures, which may hinder the practical application of job architecture frameworks. Addressing these limitations is essential to ensure the research findings are both academically rigorous and practically relevant.

Results and further discussions

1. Conceptual Convergences

Job architecture provides a structured framework for organizing roles, responsibilities, and career progression. By grouping similar roles, it ensures clarity regarding career paths and consistency in pay and promotions, aligning roles with strategic goals and fostering collaboration across processes, rewards, and people practices [1].

In IT delivery, job architecture facilitates talent movement and planning within job families, such as software development and network design, adapting to evolving demands driven by automation, hybrid work, and regulatory shifts [22]. Reshaping job architecture addresses challenges like structural rigidity, hierarchical cultures, and legacy systems, enabling improved collaboration, innovation, and streamlined decision-making [23]. This transition positions job architecture as a dynamic enabler of organizational adaptability.

By aligning roles with organizational capabilities (skills, processes, and technologies), it ensures value flow and strategy execution [6]. This suggests that job architecture functions as more than an organizational framework, but rather serves as a driver of effective IT delivery, emphasizing the value of clear roles and adaptable structures in achieving strong performance.

2. Job Architecture and Agile transformations

Building on the foundational role of job architecture in fostering clarity, consistency, and adaptability, its significance becomes even more pronounced in Agile setups. Here, IT delivery relies on self-managing, cross-functional teams organized around products. These teams require role clarity and operational autonomy to deliver customer value in short cycles, minimizing dependencies and delays [5]. Furthermore, transitioning to Agile ways of working in large organizations requires reshaping hierarchical structures by redefining roles and work relationships rather than eliminating them, as represented in the OSTTA [23], adapted and illustrated in Figure 2.

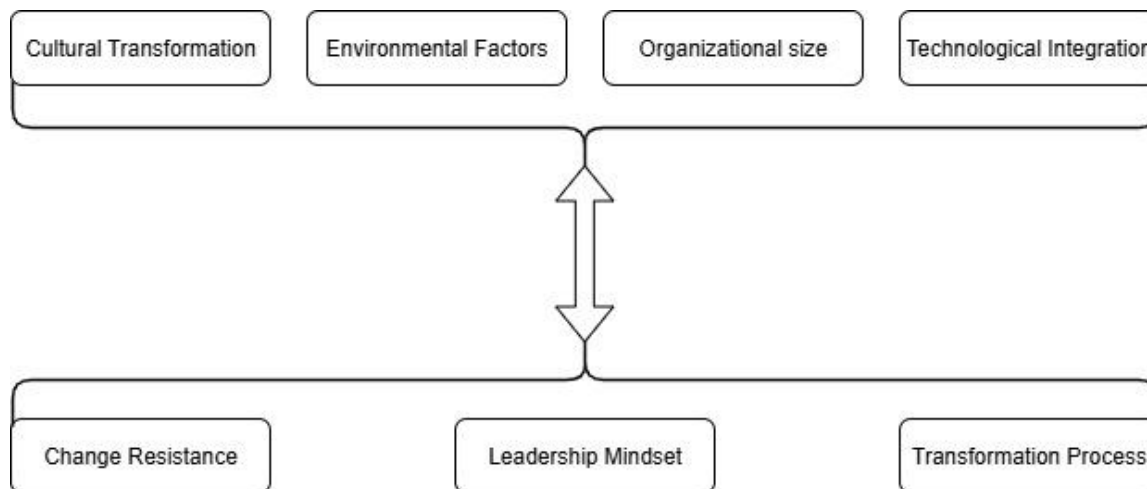


Figure 2: OSTTA

Adapted from Pacheco-Cubillos et al.: Transitioning to Agile Organizational Structures: A Contingency Theory Approach in the Financial Sector

3. Conceptual model

Drawing on the foundational insights provided, can be viewed as a key contributor to effective IT delivery, supporting coordination, can be viewed as a key contributor to effective IT delivery, supporting coordination, and facilitating the exchange of knowledge. These elements create the conditions necessary for efficient team collaboration and innovation, which are essential for Agile execution. By providing a structured yet flexible approach, job architecture helps teams adapt to evolving environments, shifting demands, and unforeseen challenges, while staying aligned with strategic goals.

The JA-IDP (Job Architecture-IT Delivery Performance) Model, as depicted in Figure 3, illustrates how job architecture supports Agile execution and organizational adaptability. It highlights the role of job architecture in enhancing collaboration, autonomy, and systemic interdependence, which are vital for delivering reliable outcomes. This model is particularly relevant for professionals such as Enterprise Architects, HR specialists, Agile Coaches, and Transformation Managers, offering a framework to align roles, responsibilities, and career pathways with IT delivery demands.

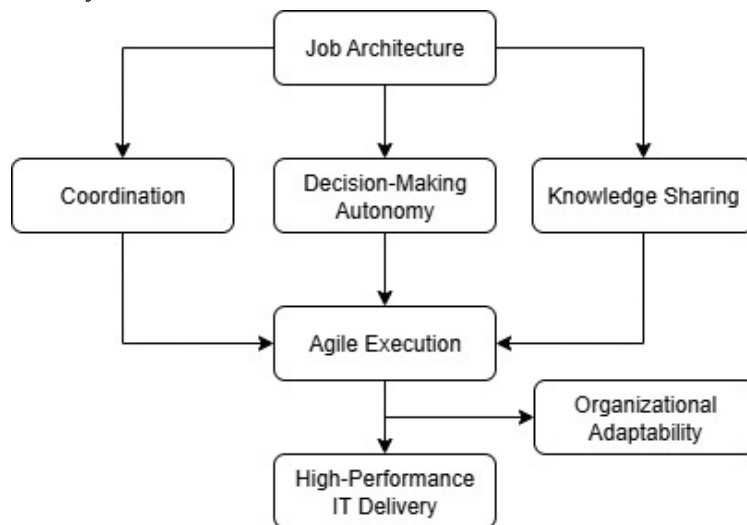


Figure 3: JA-IDP (Job Architecture-IT Delivery Performance) Model

Source: Author's own contribution

Rather than prescribing a rigid method, the JA-IDP Model encourages organizations to adapt job architecture to better support Agile principles and technical execution. By leveraging this model, organizations can improve collaboration, responsiveness, and innovation within technical teams, ensuring job architecture evolves into a strategic asset that drives high-performance IT delivery.

Conclusion

This study provides a conceptual exploration of how job architecture functions as a strategic enabler of IT delivery performance, particularly in Agile and complex organizational contexts. By synthesizing insights from organizational theory, systems thinking, and Agile methodologies, the research emphasizes the critical role of job architecture in fostering coordination, role clarity, and decision-making autonomy - all key factors for achieving adaptive and high-performance IT delivery execution.

The primary contribution of this research is the development of the JA-IDP Model, which demonstrates how a flexible, well-configured job architecture supports cross-functional collaboration, autonomy, and systemic interdependence. This enables teams to operate with agility while maintaining strategic alignment.

The findings position job architecture as more than an HR construct, but rather as a structural mechanism that connects roles with strategic capabilities and value flow across the organization. As for IT delivery, in large organizations undergoing Agile transformations, the study emphasizes the need to reconfigure roles and work relationships to overcome legacy constraints and hierarchical rigidity.

While the findings provide a robust foundation for leaders, enterprise architects, and transformation agents, their practical validation may encounter obstacles stemming from deep-rooted organizational cultures and structural resistance to change.

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