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Digital Project Leadership and Talent Management in the As-Practice Perspective

Completed Research

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Abstract

Digital Transformation studies have emphasized the emergence of new post-alignment challenges with a more seamless integration of business and technology strategies. Project leaders face more complex tasks, requiring hybrid skillsets, blending business and technology expertise, and spanning operational and strategic levels. The research question motivating this review is: how can IT executives best identify and position IT professionals and managers to fit digital leadership roles? These challenges are directly linked to Talent Management (TM) practices to help coach project teams and managers in developing digital leadership competencies. A brief literature review is presented, grounded in theoretical perspectives that link these competencies to IT and digital strategy outcomes. A model is proposed to integrate the literature around Strategy-as-Practice and Project-as-Practice serving as broader theoretical canvas. The conclusion proposes a research agenda to help integrate TM with digital leadership and encourage new empirical studies of digital projects in the “as-practice” perspective.

Keywords

Digital Transformation, Project Leadership, Talent Management, Strategy-as-Practice, Project-as-Practice.

Introduction

Digital Transformation is typically structured around a multi-year program of IT-enabled change projects, leading to significantly new processes and infrastructures, products and services, business models, as well as behaviors and culture (Hanelt et al. 2021; Vial 2019; Warner and Wäger 2019). Given the wider scope of challenges, leading digital projects requires more than traditional IS/IT skillsets, and will involve inevitably some form of digital innovation, where teams must leverage IT to continuously develop strategic advantages new to the organization’s ecosystem and industry (Kohli and Melville 2019). As such, digital leadership presents new challenges where evolving requirements imply greater agility, and in turn new approaches in recruiting and coaching IT professionals and team leaders, while keeping organizational performance stable and avoiding “digital failure” (Ramesh and Delen 2021).

The research question motivating this review is: how can IT executives best identify and position IT professionals and managers to fit digital leadership roles that remain loosely defined and emerging, especially as most of the IT workforce has traditional credentials with little experience in transformation projects? Recent studies of Chief Digital Officer (CDO) positions have raised the concern of how to prepare the next generation for rapidly growing portfolios of digital projects (Firk et al. 2021; Kessel and Graf-Vlachy 2021; Kunisch et al. 2022; Singh et al. 2020). While CDOs are often appointed from outside the organization, recruitment at lower ranks will typically favor existing personnel, requiring them to develop new hybrid leadership skills, blending business and technology expertise, and spanning operational and strategic levels.

Most organizations are still adjusting to this context, where the IT profession remains highly fragmented across professional groups, e.g., business analysis, system architecture, data science, project management, cybersecurity analysis, etc. There is yet to emerge a common professional identity, uniting the IT workforce around coherent digital leadership roles with clear career paths. An integrative and adaptive competency framework is needed, or a set of roles and staffing requirements that serve as a wider canvas than traditional IT reference models, and that can evolve as the organization becomes more digital in nature.

These challenges are directly linked to Talent Management (TM), one of the most strategic practices in Human Resources Management (HRM). It is focused on developing the “Competency Architecture” of an organization as the matching point between operations and people, i.e., logical structure or ontology of tasks, processes, roles, and outcomes, along with required knowledge, skills, and experience (Lewis and Heckman 2006). This practice helps to systematically plan and invest in the best personnel as strategic resources (McDonnell et al. 2017). TM can be a key enabler to develop digital capabilities, where successful transformation leads to a mature digital organization with exceptional agility in strategically leveraging IT.

A brief literature review is presented, grounded in theoretical perspectives that link leadership competencies to IT and digital strategy outcomes. First, the foundations of TM as an HRM practice are outlined to define how it can help renew the IT and digital leadership ranks of an organization. Second, a review of the Digital Strategy literature helps to clarify core concepts and provides examples of digital leadership competencies. Third, a model is proposed to integrate the literature around Strategy-as-Practice, an important theoretical perspective in strategic management, along with its related concept in project management, Project-as-Practice. Fourth, the conclusion proposes a research agenda to help integrate TM with digital leadership and encourage new empirical studies in the “as-practice” perspective.

Talent Management

Digital Transformation requires new approaches to managing IT personnel, beyond traditional HRM processes designed for reactive support. Digital projects require new TM capabilities to provide a systematic effort to optimize the match between the organization’s strategic roles and people’s ability, motivation, and career opportunity (Collings and Mellahi 2009). It must leverage rapid globalization to enable more flexible matching between talented employees and jobs (Tarique and Schuler 2010), making corporate HR becoming a strategic advantage in highly competitive markets (Farndale et al. 2010). TM is particularly focused on the deployment of strategic HR functions throughout the organization and its global locations for TM-driven unit-level management systems (Morris et al. 2016).

Making TM better fit for digital projects is linked to several business challenges. At the executive level, transforming HR as a strategic function requires renewed focus on people and culture (Ulrich and Dulebohn 2015). At the operational level, professionals must maintain career coherence using logical competency anchors for talent and job pools (Schein and Van Maanen 2016), ensuring employee trust with adequate compensation and fair processes (Seopa 2015). As well, relying increasingly on TM implies deploying its processes and practices uniformly across all organizational units (Thunnissen 2016), and building a TM capability in early stages of an organization’s growth (Krishnan and Scullion 2016).

As well, TM practices are evolving and becoming more digital along with the rest of the organization. Among key HR IT strategy issues, TM must be weaved as part of HRM systems and accurately reflect the firm’s competency architecture as linked to its products, processes, and people (Tafti et al. 2017). It must also maintain relevance to the actual capabilities of people at all levels, while using quantitative and systematic competency architecture metrics (Wiblen 2016). As well, integrating TM with Knowledge Management (KM) processes for “Smart TM-KM” platforms remains a challenge in HRM systems (Anbumathi and Sivasubramanian 2016). As a core task in a TM-KM platform, Talent Discovery (TD) can be automated with intelligent systems, based on semantic and analytics platforms. Powered by Artificial Intelligence (AI), TD can reuse Knowledge Graphs to match professionals to tasks as per competency architecture (Duan and Xiao 2019), and also enable knowledge extraction from work roles (Thi et al. 2020).

As TM practices evolve and overcome the business and technology challenges of HRM, they can help better link leadership competencies to IT and digital strategy outcomes. While digital projects are progressively executed, with parallel and sequential learning throughout programs of projects, TM can serve to prioritize skills development efforts, and develop a digital leadership acumen as unique advantage to an organization.

Digital Strategy

Business-Technology Alignment

The digital strategy literature has its antecedents in decades of IT strategy research. Among key developments are the emergence of IT strategy from an organizational perspective, beyond the traditional functional viewpoint of IT, with a greater emphasis on its innovative potential (Chen et al. 2010). This is

linked to reconceptualizing IT beyond its artefacts nature, and toward a broader value perspective integral to business (Gable 2010). More fundamentally, the IT strategy domain can also benefit from a repositioning its core concepts within complexity theory, in particular a complex adaptive system perspective, where the vast network of relationships among business and technology concerns are wholly integrated and assessed (Merali et al. 2012). Combining these and other conceptions of IT strategy can help unlock new opportunities for research, including especially in digital strategy emergence (Williams et al. 2022).

In particular, as the best known approach to IT strategy, business-technology alignment remains primarily defined as the relative fit between business strategy, IT strategy, business practice, and IT operations (Henderson and Venkatraman 1993). It has long been the top IT-related concern of Chief Executive Officers (CEOs) and Chief Information Officers (CIOs) (Kappelman et al. 2021). Yet research has found a communication gap in creating the necessary business-technology alignment at the strategic level, a lack of mutuality or joint understanding (Benlian and Haffke 2016; Krotov 2015), and other structural obstacles throughout the evolution of the CIO role (Chun and Mooney 2009).

Studies of alignment have shown that its process and impact vary greatly, requiring more attention to the foundations of how business and technology strategies are enacted, beyond alignment itself (Chan and Reich 2007). The complexity of the alignment process is amplified by the mediating interdependencies between the six relationships between four alignment components (Gerow et al. 2015).

While the overall body of evidence has shown that alignment is not always a source of firm performance (Gerow et al. 2014), a dynamic capabilities perspective can help uncover the sources of value creation from the alignment of present strategies and future ones (Tai et al. 2019). As well, the micro-foundation of alignment and the emerging dominance of digital organization and more innovative digital strategies in various sectors may give way to new forms of conceptualizing and measuring the alignment construct (Coltman et al. 2015).

Digital Transformation

The acceleration of Digital Transformation portends a new post-alignment era, where Digital Strategy creates a seamless integration of business and technology (Bharadwaj et al. 2013). This is not necessarily signaling the end of theory development for alignment research, but primarily a refinement of its findings in a context of increasingly digital organizations, diversifying instead of invalidating its lessons.

IT Embeddedness within business processes creates new digital capabilities where IT projects are increasingly required to develop a “new integrated language”. Leaders are now expected to help remove traditional distances between business and technology team members (Kohli and Grover 2008). Strategy concerns are symbiotic to any digital project, hence the challenge of developing a hybrid skillset of business technology leadership, that must be further adopted throughout the organization (Grover et al. 2018).

Developing a digital organization requires a high level of maturity in the way digital leaders can contribute to both business and technology strategies (Carpejani et al. 2020; De Tuya et al. 2020; Johnson and Lederer 2013). This integration depends on the extent to which they develop the necessary abilities to manage a hybrid strategy process (Johnson and Lederer 2010).

Digital leaders must also deal with a shift in strategy focus, from a more traditional IT management toward business integration leadership (Ragowsky et al. 2014; Venkatesh et al. 2019). They are met with greater expectation on the business performance impact of IT (Peppard 2010; Varajão et al. 2016), as well as greater freedom in contributing to business strategy (Ding et al. 2014). They are often required to change the culture of the organization toward IT-enabled change (Gerth and Peppard 2014; La Paz 2017), and manage technology and business risks in an integrated framework (Gerth and Peppard 2016; Yeow et al. 2018).

Leadership Competencies

As they must continue working with existing personnel through transformation, digital project leaders are required to help people learn and co-create both new technology applications and new organizational capabilities. This requirement increasingly reaches top executives as the digital organization matures (Kane et al. 2019). As the portfolio of digital projects grows, so does the expectations of digital readiness across the organization, where measuring relative business-technology alignment gives way to a more complex measurement of the ability to continuously evolve through digital renewal (Nguyen et al. 2020).

These trends have led to new digital leadership roles, in particular the emergence of CDOs. Often a hybrid role with focus on business value from IT (Horlacher 2016; Locoro and Ravarini 2019), they are called upon to partner closely with CIOs sharing a necessary Renaissance vision (Spitze and Lee 2012; Tumbas et al. 2018). They can be promoted to more business-technology strategy as opposed to IT management (Carter et al. 2011), as long as they match and master the business strategies pursued by the organization (Li and Tan 2013; Shaughnessy 2018), and a close partnership with CXO roles linked to the customer orientation of the organization (Tahvanainen and Luoma 2018; Whitler et al. 2017).

To help transform organizations through IT, senior digital leaders must emphasize: developing an innovative mindset and ensure it permeates throughout the organization (Chen et al. 2015; Newbold and Azua 2007; Zimmermann et al. 2019), gaining the necessary authority to negotiate with other executives (Banker et al. 2011), developing a wide ranging set of IT competencies (Chen and Wu 2011), exercising influence through technical leadership (Enns et al. 2003), and acquiring the necessary understanding of the business and its industry through varied experience (Sobol and Klein 2009; Vial 2019).

Table 1 synthesizes this brief literature review into examples of digital leadership competencies linked to digital strategy. In this context, TM can help identify gaps in linking strategic management and project management of Digital Transformation. Gaps can then be integrated to sets of new, hybrid competencies required to properly link and jointly or codevelop digital project strategies and execution. Note that TM in that context must be customized to the complex nature of IT artefacts, development methods, potential business value and affordances, along with numerous other factors. In that context, it is likely that integrating TM to digital leadership requires a complex adaptive system perspective, emphasizing dynamism in competency emergence within and across digital teams.

Competency	Link to Digital Strategy	Example Authors
Business model redesign	Formulate digital strategies departing from established models for competitive advantages	(Berman 2012; Schallmo et al. 2017)
Value-driven and user-centric innovation	Focus IT-enabled change on actual value impact and end-user behaviors	(Kohli and Melville 2019; Vial 2019)
Data-centric transformation	Enhance strategies or formulate new ones based on data and intelligence capabilities	(Brock and von Wangenheim 2019; Raisinghani 2021)

Table 1. Examples of Digital Leadership Competencies Linked to Digital Strategy

As-Practice Perspectives

Strategy-as-Practice

Strategy-as-Practice is fundamentally a more complex perspective of strategy making where the interplay of strategy making, strategy makers, strategy artefacts, and strategy processes are co-constructed through a dynamic, emergent, and learning-oriented praxis (Jarzabkowski 2008; Whittington 1996).

The research agenda for using the as-practice perspective is still emerging in the IS literature (Arvidsson and Holmström 2017; Whittington 2014). This conceptualization brings more dynamism to how the interplay of strategy and digital capabilities are codeveloped. As a theoretical framework, it may extend the alignment literature and respond to calls for more dynamic and micro-focused research, similar to other areas of organizational studies and group decision making linking strategic and operational levels (Netz et al. 2020; Seidl and Whittington 2014; Wei and Zhang 2020).

In particular, this perspective can help refocus digital strategy making on the core behavioral issues around strategy enactment (Peppard et al. 2014). Recent findings have shown it can help pinpoint specific causes for alignment failure, such as lack of insight in the business environment, difficulty to articulate new technology trends for business applications, or missed opportunities to set priorities and hasten effective

strategy emergence (Kitsios and Kamariotou 2019). Therefore, viewing digital strategy from a strategy practice viewpoint has the potential to help study how the continuously emerging phenomenon of Digital Transformation, and its complex interplay between business and technology, redefines IT strategy theory.

Project-as-Practice

Based on the same foundational research, Project-as-Practice is another important literature stream with relevance to digital leadership. Essentially, it proposes to view project execution from the viewpoint of what actually happens in projects, and ensure that theories of project management are more accurately depicting the reality of project life (Blomquist et al. 2010; Hällgren and Söderholm 2011).

Beyond the fact that most IT is structured around projects, the Project-as-Practice perspective has direct relevance to digital and technology issues in organizations. For example, involving end-users and stakeholders in Digital Transformation can benefit from practices found in project execution, especially in the context of technology-enabled innovation (Hällgren and Söderholm 2010; von Koskull and Fougère 2011). The integration of strategic and operational levels is also a challenge studied from the “as-practice” perspective in project and their governance, a key aspect as well of digital strategy enactment (Brunet 2019; Karanasios and Slavova 2019; Kwayu et al. 2018). Finally, as digital projects involve complex decision-making contexts, and rapidly changing technology environment and new emerging opportunities, it is relevant to look at Project-as-Practice lessons in the conceptualization of project decision-making from the epistemic foundations and praxis abilities of project teams and leaders (Buchan and Simpson 2020; Kalogeropoulos et al. 2020).

Figure 1 presents a proposed model to help integrate digital leadership and TM within the as-practice perspective. As digital strategies and projects are enacted and executed, the ongoing strategy process and emergence allows for a continuous learning and co-development or praxis in digital leadership competencies. TM must be modeled around leveraging the strengths and overcoming the gaps and weaknesses of digital teams and leadership. Meanwhile, the alignment and capability development challenges are viewed more as a complex system linking this dynamic process and ongoing transformation.

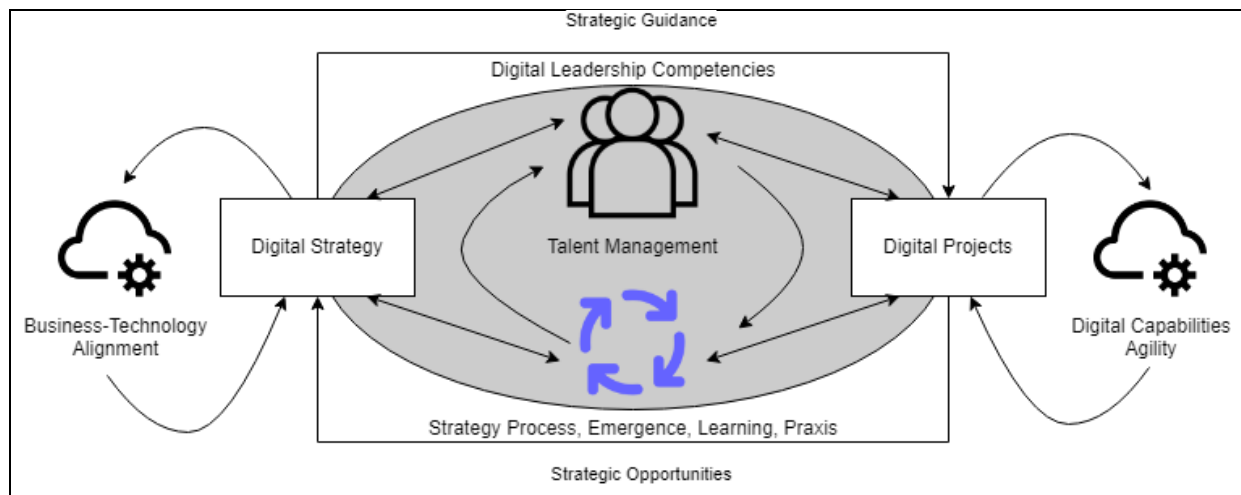


Figure 1. A Model of Digital Leadership in the As-Practice Perspectives

Conclusion

This literature review addressed strategic research questions for using TM methods to renew the ranks of digital leadership at various levels within organizations. Several streams of literature were considered, among others business-technology alignment, Digital Transformation, as well as Strategy-as-Practice and Project-as-Practice.

The main finding of this review is the importance of refocusing on, and better defining, leadership competencies around IT strategy outcomes. Theory development in Digital Strategy has emphasized hybrid leadership skills for digital project success (Kane et al. 2019). Similarly, extensive reviews have called upon a renewal of the alignment literature to become more coherent with practice, and research the enactment processes, micro-foundations, and performance impact of alignment practices (Chan and Reich 2007; Coltman et al. 2015; Gerow et al. 2014). Digital projects also require increasingly more talented leaders and IS-IT professionals are called upon to take leadership of Digital Transformation.

The issues addressed can form the basis of an empirical research program in the “as-practice” perspective. As such, TM practices can better take roots and directly support Digital Transformation by accurately studying how digital leadership competencies are enacted by teams and their managers. This can also help explain and anticipate how the ongoing changes throughout the IT profession may coalesce into a new, unified digital leadership profession. The development of a more unified common language for Digital Transformation and digital innovation would also enable this emergence. The conceptual foundations identified here can guide this work and articulate better the value added of new unified profession.

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