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Who Owns What, When? Coordination of Managerial and Technological Responsibilities Across Digital Transformation Phases

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Research Article

Keywords: Digital Transformation, Responsibilities, Actors, Coordination, Transformation Phases

Posted Date: November 23rd, 2026

DOI: https://doi.org/10.21203/rs.3.rs-11161733/v1

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Additional Declarations: No competing interests reported.

Abstract

Unclear responsibilities across business and technical domains depict one of the main culprits why many expensive digital transformation (DT) fall short. We address DT as coordinated action and examine how managerial, technological, and hybrid responsibilities reconfigure across DT phases. Drawing on an interpretive qualitative study of 17 semi-structured interviews with actors directly involved in DT initiatives, we analyze responsibility distributions across strategic initialization, experimentation and implementation, integration and transformation, and stabilization. We identify that DT unfolds through evolving co-ownership in which managerial and technological roles remain differentiated yet interdependent. Hybrid actors emerge as critical boundary spanners, especially during experimentation and integration. Portraying a holistic view on DT, we integrate actor-centric and process-oriented perspectives by showing how responsibility constellations shape coordination, alignment, and transformation outcomes over time. With this, we offer organizations a structured lens to govern and set up DT initiatives.

1. Introduction

Despite rising investments in digital transformation (DT) up to $4 trillion globally by 2028 (IDC 2025), most expensive initiatives fail to meet their objectives, caused less by technological shortcomings, but mainly by poor coordination and the lack of alignment across technical and business domains (Davenport and Westerman 2018; Oludapo et al. 2024). Although literature hints towards this coordination, emphasizing DT requires or is a result of coordinated action across various management levels (Matt et al. 2015; Rowe and Markus 2023), most studies focus on single actors and responsibilities (e.g., Singh et al. 2020; Weber et al. 2022; Cranney et al. 2025). Herein, high attention concentrates on executive management, highlighting the role of Chief Digital Officers for the success of DT (e.g., Haffke et al. 2016; Horlacher and Hess 2016), while theory and practice show clearly the high complexity of DT requiring more than a single actor to govern such initiatives (Davenport and Westerman 2018; Hanelt et al. 2021; Oludapo et al. 2024). The culprit is a governance problem: organizations digitally transform without deliberately designing who is responsible for what, and when. This paper argues that responsibility in DT does not get allocated once at the outset and handed forward; instead, it gets continuously reconfigured as transformation unfolds, and requires successful collaboration of multi-actors along DT´s multi-phase processes.

Unlike IT-enabled transformation, DT comes with simultaneous changes to value creation paths, as well as the redefinition of organizational identity, next to technological infrastructure and work practices across the organization (Bharadwaj et al. 2013; Li et al. 2018; Wessel et al. 2021; Hess and Graf 2026), often without a predetermined endpoint (Vial, 2019; Wessel et al., 2021). In this sense, it represents a multidimensional and continuous process that reshapes how organizations design, coordinate, and deliver value, making DT fundamentally different from an IT introduction project (Berghaus and Back 2017; Kane 2019; Hess and Graf 2026). Consequently, it requires high-stakes management, collaboration, and coordination of managerial and technological roles and responsibilities (Warner and Wäger 2019; Wrede et al. 2020; Simsek et al. 2024). This multidimensionality makes responsibility inherently dynamic across DT: no single role or actor commands the expertise to govern all transformation dimensions along DT´s unfolding. Existing research recognizes the multi-actor nature of DT in principle (Matt et al. 2015; Simsek et al. 2024; Wiener et al. 2025), yet captures it by selectively studying individual role types (e.g., Singh et al., 2020; Weber et al., 2022) or isolated processes or phases (e.g., Orth et al., 2025; Wiener et al. 2025) without explaining how responsibility configurations evolve

across the full transformation. This leaves both, theory and practice without the temporal, actor-centered account of DT coordination. Contemporary research highlights this actor-oriented coordination and interaction challenge, calling for more research on socio-technical microfoundations for DT, i.e., the role of individual organizational actors in DT (Vial 2019; Iden and Bygstad 2025; Wiener et al. 2025) with a “particular focus on their time-related perceptions and actions, in large businesses (where such positions are more likely to exist and be clearly defined)” (Wiener et al. 2025).

By examining DT as a phase-based and socio-technical phenomenon, we investigate DT as a sequence of evolving interactions among organizational actors who must continuously coordinate across domains of expertise. We explore how technological and managerial responsibilities are distributed across DT phases, and how these distributions shape outcomes, asking the question: **“What responsibilities do managerial and technological actors take on in different DT phases?”**

We opted for an interpretive qualitative research design based on semi-structured expert interviews with actors who were directly involved in DT initiatives. This in-depth examination of how responsibilities are enacted, negotiated, and coordinated in practice allows us to capture the processual and socio-technical dynamics through which transformation unfolds over time. By analyzing how different actors assume and reconfigure responsibilities across distinct phases of DT, we develop a nuanced, empirically grounded account of role distribution. In doing so, we contribute to a deeper understanding of DT as a multi-actor, multi-phase process shaped by evolving patterns of responsibility and interaction. According to the cumulative tradition, we respond to recent calls for research (Vial 2019; Wiener et al. 2025) and contribute to the perspective of microfoundations (Iden and Bygstad 2025) by bringing evidence for actor-related mechanisms through which alignment in the context of DT unfolds over time.

2. Theoretical Background

2.1 DT as a multi-phase process sequence

Theoretical syntheses (e.g., Vial, 2019) as well as numerous empirical studies (e.g., Soh et al., 2023; Wessel et al., 2021) argue that DT is not a one-time technological implementation but a recursive, evolving sequence of organizational, managerial, and technological adjustments (Iden and Bygstad 2025; Amanollahnejad et al. 2026). In this sense, DT is distinctive through its multidimensional impact (Fernandez-Vidal et al. 2022; Nolte et al. 2025), multi-actor involvement (e.g., Karabag et al. 2026), and multi-phase process sequence (e.g., Wiener et al. 2025). While scientific research into DT has led to a large number of process models designed to support organizations in the design, management, and evaluation of transformation projects (Wiener et al. 2025), different theoretical perspectives offer a variation in DT process models and their underlying process logic. Berghaus and Back (2017) describe DT as an evolutionary maturation process across multiple dimensions, whereas Hansen et al. 2011 propose non-linear, cyclical, and adaptive process structures. Similarly, Soh et al. (2023), Vial (2019), and Wessel et al. (2021) conceptualize DT as a non-deterministic process of evolving trajectories, emphasizing emergent interactions and recursive sensemaking across organizational levels. While alternative views attempt to explain DT´s unfolding through a flow perspective (Baygi et al. 2021; Plattfaut and Kautz 2025), this entity and actor-oriented lens dominates the current DT discourse. Contemporary research acknowledges this non-linear, cyclical, and non-deterministic perspective, but in parallel indicates typical processual, activity-driven sequences that build upon and follow each other in order to implement DT:

According to Soh et al. (2023), Vial (2019), Wessel et al. (2021), and Warner and Wäger (2019) DT starts by an organization's “strategic response” (Vial 2019) on how to leverage and/or take advantage of a technological, environmental and/or organizational disruption to stay competitive. With this “digital sensing” (Warner and Wäger 2019) and recognition of technological disruption (Plattfaut and Borghoff 2023; Orth et al. 2025) a “transformation agenda” (Wessel et al. 2021) is formulated. This results in an adjusted strategic direction and adjusted claims of desired organizational identity (Wessel et al. 2021; Soh et al. 2023), that are shared as a common future state throughout the organization. In this sense, early activities that establish strategic intent, vision, and initial coordination mechanisms among key stakeholders (Elia et al. 2024; Simsek et al. 2024; Ergün and Plattfaut 2025; Wiener et al. 2025) display initial alignment activities and an *initialization* phase as the beginning of DT efforts.

Exploration and implementation efforts follow as the second DT phase (Ulas 2019; Soh et al. 2023). With the definition of the scope and scale of DT actions (Soh et al. 2023) “digital seizing” (Warner and Wäger 2019), and transformation activities (Wessel et al. 2021) unfold by selecting, adopting, and leveraging digital technologies in the organization to (re)define or support the organization´s value proposition. Here, DT starts operatively by iterative experimentation and learning processes, where technological actors gain importance and management adopts adaptive, enabling functions in order to pilot selective technology-driven business processes (Ulas 2019; Soh et al. 2023; Orth et al. 2025; Karabag et al. 2026). According to Wiener et al. (2025) changes on three operational layers occur, representing structural changes (Plattfaut and Borghoff 2023): changes in an organization’s operational backbone (e.g., ERP system, IT infrastructure) in relation to its, the adaptation of an organization’s business process management ‘logics’ in relation to its DT, and the reconfiguration of an organization’s DT-related capabilities (including the development of new capabilities). Changes in value creation paths result that are tested for the organization's value proposition and are ultimately available to all organizational members (Vial 2019).

During phase three, *integration and transformation*, organizations operationalize the adjusted value proposition by fostering, accompanying, and enforcing structural changes across value creation chains, including organizational structures, cultural norms, work practices, role definitions, and skill requirements (Vial 2019; Checchinato et al. 2021; Wessel et al. 2021). As newly configured value creation chains are “imposed” (Wessel et al. 2021) and rolled out across hierarchical levels, the transformation increasingly affects the entire workforce (Ergün and Plattfaut 2025). Organizational members are required to engage with altered processes and technologies - sometimes proactively, sometimes under formal mandate - thereby extending DT from localized initiatives to organization-wide change (Vial 2019). In this sense, integration also encompasses digital workplace transformation as a subprocess of DT, as it directly reshapes how organizational identity, everyday work, and coordination practices are enacted (Wiener et al. 2025). In line with Wiener et al. (2025), integration does not constitute a discrete stage but unfolds through the interplay between the DT base process - concerned with redefining value propositions and organizational identity - and interrelated subprocesses at the strategy, governance, and operations levels. This phase is further marked by active responses to emerging “paradoxical tensions” (Soh et al. 2023) and the mitigation of organizational barriers that arise as digital solutions encounter entrenched routines, way of workings and power structures (Plattfaut and Borghoff 2023; Soh et al. 2023; Simsek et al. 2024; Orth et al. 2025).

Having the circular sequence of DT in mind, some scholars depict a fourth phase of *stabilization* in explaining DT (Ergün and Plattfaut 2025). Rather than signaling an endpoint, stabilization represents the routinization of newly

established value creation chains and their embedding into operational, managerial, and governance routines, thereby reinforcing the redefined value proposition and organizational identity articulated during earlier processes (Wessel et al. 2021; Wiener et al. 2025). In the stabilization phase, organizations routinize newly established value creation chains and institutionalize the outcomes of DT (Checchinato et al., 2021; Wessel et al., 2021). The organization has become familiar with the transformed ways of working and systematically embeds DT-related adjustments into its operational, managerial, and governance routines. As a result, value creation processes are executed reliably and consistently, enabling the organization to realize and sustain the (re)defined value propositions (Ergün and Plattfaut 2025). Through this institutional anchoring, claims of organizational identity articulated during earlier phases are enacted and reinforced in everyday practice (Wessel et al. 2021; Hess and Graf 2026). This phase reflects the transition toward “being a digital company” (Checchinato et al. 2021) and corresponds to processes of reconciliation in which prior tensions between old and new logics are resolved, and digital ways of working become taken-for-granted organizational routines (Wessel et al. 2021; Orth et al. 2025). Table 1 provides an overview of DT literature on different DT phases.

Table 1
Overview of DT´s multi-phases according DT literature

DT Phase	Phase Characterization
Strategic Initialization	• Sensing and recognition of technological, environmental disruption, and emerging transformation needs (Ergün & Plattfaut, 2025; Iden & Bygstad, 2025; Orth et al., 2025; Plattfaut & Borghoff, 2023; Soh et al., 2023; Vial, 2019; Warner & Wäger, 2019) • Formulation of a digital transformation agenda and future-oriented strategic direction and/or vision (Ergün & Plattfaut, 2025; Elia et al., 2024; Simsek et al., 2024; Wessel et al., 2021; Wiener et al. 2025)
Experimentation & Implementation	• Translation of strategic intent into transformation scope, priorities, exploratory digital initiatives and concrete transformation activities (Iden & Bygstad, 2025; Orth et al., 2025; Soh et al., 2023; Wessel et al., 2021; Wiener et al., 2025). • Selection, piloting, and testing of digital technologies and use cases (Hansen et al., 2011; Ulas, 2019; Vial, 2019) • Reconfiguration of processes, structures, and organizational capabilities to support new forms of value creation (Karabag et al., 2026; Plattfaut & Borghoff, 2023; Vial, 2019; Warner & Wäger, 2019; Wessel et al., 2021)
Integration & Transformation	• Scaling of successful digital initiatives beyond isolated pilots and localized experiments and integration of digital solutions into broader value creation processes and everyday operations (Soh et al., 2023; Vial, 2019; Wessel et al., 2021; Wiener et al., 2025) • Adaptation of organizational structures, i.e., roles, work practices (Checchinato et al., 2021; Orth et al., 2025; Plattfaut & Borghoff, 2023; Vial 2019) • Management of structural, cultural, and behavioral tensions between digital and legacy organizational logics (Simsek et al., 2024; Soh et al., 2023; Vial, 2019)
Stabilization	• Stabilization and routinization of transformed structures, processes, and practices (Checchinato et al., 2021; Ergün & Plattfaut, 2025; Wessel et al., 2021; Wiener et al., 2025) • Consolidation of new organizational logics and ways of working across the organization (Orth et al., 2025; Wiener et al., 2025; Wessel et al., 2021)

2.2 DT as a multi-actor effort

Considering the multiple transformation phases depicted above, DT affects strategic, managerial, and operational levels alike, requiring high-stakes management, collaboration, and coordination of managerial and technological roles (Matt et al. 2015; Warner and Wäger 2019). As showcased in Journal of Association of Information Systems´ special issue on “Envisioning Digital Transformation” (Rowe and Markus 2023), most theoretical perspectives on DT share the view that coordinated action across various management levels as well as organizational departments is crucial. All published papers followed this actor-centred line of thinking and conceptualized DT as driven by a group of committed people (Braa et al. 2023), as collective social action (Tana et al. 2023), as the result of intended managerial action (Soh et al. 2023), or as driven by managers whose role change through technology (Constantiou et al. 2023). Moreover, Iden and Bygstad (2025) argue that DT unfolds through the interaction of individuals and digital resources, determining organizations´ DT capabilities. In this sense, DT presents a multi-actor effort involving not only senior executives and IT professionals but also middle managers, human resources (HR), and frontline employees (McCarthy et al. 2022; Cranney et al. 2025). Table 2 depicts an overview of DT literature on different actors and their responsibilities in DT.

Having understood the criticality of top management support for innovation and transformation success (Haffke et al. 2016; Rahman and Palvia 2025), contemporary research stresses especially the central role of top executives (e.g., chief executive or chief digital officers) in DT. They need to own and drive (Haffke et al. 2016; Horlacher and Hess 2016), but also informally advocate and promote DT through enthusiasm and acts of motivation throughout the transformation phases (Singh et al. 2020). Moreover, management acts as a “critical mediator who brokers meaning across technical and social domains, builds trust, sustains momentum amid uncertainty, and fosters distributed agency” (Amanollahnejad et al. 2026). While the CDO is often tasked with driving transformation and fostering cross-functional alignment, overlapping responsibilities with CIOs or COOs can result in turf conflicts or strategic misalignment (Cranney et al. 2025). For successful DT, organizations must clarify the distribution of responsibilities and evolve coalitions among organizational actors, including who sets direction, who owns implementation, and how cross-departmental coordination is achieved (Zoppelletto et al. 2023; Elia et al. 2024; Simsek et al. 2024).

But also lower managerial levels appear to be important: employees´ (un)desired responses to DT, e.g., trust, resistance, and innovative job performance are highly influenced by department leaders' behaviors (Wang et al. 2022; Weber et al. 2022) whereas project members´ technology-driven performance is strongly impacted by project leadership in the context of DT (Teubner 2019; Huang et al. 2023; Eom et al. 2025). Moreover, program managers continually have to align business and IT domains and bridge the different professional cultures in order to ensure mutual communication and understanding (Teubner 2019). In this context, Cetindamar et al. (2024), Simsek et al. (2024), and Ergün and Plattfaut (2025) depict the distributed responsibility of DT, arguing that DT represents a shared responsibility across multiple organizational layers, requiring the active participation of top managers, middle managers, and employees. Instead of being confined to IT departments or digital offices, responsibilities are spread across units, roles, and teams, featuring a core characteristic of DT initiatives (Elia et al. 2024; Karabag et al. 2026). Karabag et al. (2026) demonstrate that DT is shaped by recurring tensions between central coordination and local autonomy and emphasize temporal fluidity and multi-level interaction as core features of transformation processes. This aligns with the distributed actor perspective proposed by Simsek et al. (2024) and the adaptive governance logic discussed by Soh et al. (2023). Middle managers, in particular, play a crucial role in bridging strategy and execution acting as “translators” who adapt high-level digital strategies to local contexts while mediating between conflicting priorities (McCarthy et al. 2022). Their work is relational and adaptive, involving not just technical coordination but emotional labor and informal

influence. This is of high significance, since technological collaborators and IT specialists (e.g., developers, architects) not only execute managerially defined strategies but also co-determine what DT initiatives become in practice (Iden and Bygstad 2025; Orth et al. 2025).

Table 2
Overview of multiple actors and their responsibilities in DT according DT literature

Actor Type	Role Characterization
Senior Executives / C-Level (CEO, CDO, CIO, COO)	• To own, drive and promote DT initiatives (Horlacher and Hess 2016; Singh et al. 2020; Wrede et al. 2020; Ergün and Plattfaut 2025; Hess and Graf 2026) • To mediate understanding across technical and business domains, build trust across domains and sustain momentum (Amanollahnejad et al. 2026)
Middle Managers / Department Leaders	• To translate and adapt high-level strategy to local contexts, incl. mediation of conflicting priorities (McCarthy et al. 2022) • To positively shape employees´ trust, resistance, and innovative job performance through own role-modeling behavior (Wang et al. 2022; Weber et al. 2022) • To carry distributed responsibility alongside top managers (Cetindamar et al. 2024; Simsek et al. 2024; Ergün and Plattfaut 2025)
Project & Program Managers	• To continually align business and IT domains and bridge professional cultures (Teubner 2019) • To own and drive and project members' technology-driven performance (Huang et al. 2023; Eom et al. 2025)
IT (e.g., Enterprise/ Solution Architects, Developers)	• To configure the digital resources through which DT capabilities emerge (Iden and Bygstad 2025; Orth et al. 2025)

However, the literature presents fragmentary perspectives in capturing how responsibilities, governance mechanisms, and actor relationships develop and interact over time. Most studies investigate DT from a managerial perspective, illustrating the criticality of leadership (e.g., Warner and Wäger 2019; Fernandez-Vidal et al. 2022), or from a technical, presenting underlying technological changes in value creation paths when digitally transforming (e.g., Gray and Rumpe 2017). In this context,Vial(2019) andWiener et al.(2025) emphasize that existing DT research often remains partial, selective, or technologically biased, lacking an integrative view that combines actor-oriented (entity) and phase-oriented (temporal) perspectives. WhileIden and Bygstad(2025) andKarabag et al.(2026) display an integrative and holistic perspective on DT, they call for future investigations to examine how DT unfolds over time, capturing all interactions across domains and hierarchies.

3. Method

3.1 Research Design

Understanding DT as a complex sociotechnical phenomenon of interactions between stakeholders and technological systems, we selected an interpretivist qualitative approach in order to capture meanings, perceptions, and social practices holistically from the perspective of the actors involved (Creswell and Creswell 2017). Here, each actor represents an independent analytical unit. Following an interpretative stance (Klein and

Myers 1999), we adopted an abductive logic (Timmermans and Tavory 2012). In particular, we used the four-phase model introduced in section 2 as a framework that guided our data collection and initial coding for targeted qualitative investigation, but remained open to responsibility patterns, roles, and tensions emerging from each interview. The authors´ prior experiences and assumptions inevitably influence data interpretation, which makes reflexivity a central quality criterion. Here, the authors' professional exposure to DT projects in both technical and managerial contexts provided analytical sensitivity for understanding coordination and interaction dynamics, but also carried the risk of interpretive bias. To mitigate this, we applied several reflexive strategies. We used memo writing for analytical insights and also for recording personal assumptions and shifts in perspective throughout the study. During coding, we continuously compared DT phases against raw data to ensure that theoretical abstraction remained grounded in participants' words rather than our preconceptions. After each major coding iteration, we revisited the results in the author´s team to detect potential over-interpretation or theoretical drift, allowing for a true discourse with the empirical data (Alvesson and Kärreman 2007).

3.2 Data collection

To investigate the roles and responsibilities distribution along DT phases, we conducted semi-structured interviews (Schultze and Avital 2011), allowing participants to articulate and elaborate on situated experiences and interpretations of DT processes in their own terms. We constructed the interview guide along the principles outlined by Schultze and Avital (2011) to closely align research objectives with interview questions. As such, the design supported that both technical and managerial perspectives are equally accessible and that coordination dynamics across transformation phases can be meaningfully captured. After initial drafting, we revised the interview guide after the initial interviews to include emerging themes such as informal coordination, hybrid roles, and power asymmetries in line with the constant comparative method (Schultze and Avital 2011). The interviews explored mainly four connected themes: how participants as actors within DT perceived and collaborated with(in) (1) roles and responsibilities (especially technical vs. managerial) along DT phases, (2) governance and coordination structures (e.g., alignment and decision mechanisms, escalation pathways, meetings), (3) tensions and barriers in cross-role and cross-functional collaboration, and (4) transformation effectiveness and success. The interview-guide used is displayed in Appendix 1.

Participants were selected through purposeful sampling (Corbin and Strauss 1996; Bouncken et al. 2025) to ensure (1) conceptual variation across technical and managerial roles from different industries, hierarchy levels, and company sizes, (2) at least 5 years of experiences in the context of DT being actively involved, (3) at least 5 years of work experience to ground experiences and interpretations within their own work environment. This criterion helped ensure that participants possessed sufficient exposure to both technological and organizational aspects of transformation processes and served as a guiding threshold to collect informed and experience-based reflections across technical, managerial, and hybrid roles. To facilitate analytical comparison, participants were categorized using a three-level role typology: (1) technological, who are primarily responsible for system development, IT architecture, or infrastructure. (2) managerial, who are responsible for planning, steering, or governing DT initiatives, and (3) hybrid, combining technical and managerial functions (e.g., agile coaches, change managers). Table 3 gives an overview of the study´s participants.

In total, we conducted 17 interviews between May 26th and August 12^{th,} 2025, lasting for 43.5 minutes on average. The interviews were conducted in German via Microsoft Teams. Prior to each interview, we gave a verbal briefing (Appendix 1) outlining the study´s purpose, the use of audio-recording for transcription as well as

the anonymized and confidential handling of the interview data. Next to the verbal consent to participate and be recorded, we collected written informed consent from all participants for storing and analyzing interview data in the form of anonymized transcripts. After interviewee briefing and consent, the integrated recording and transcription functions facilitated accurate data capture and immediate access for analysis. Automated transcripts were exported in DOCX format and

Table 3
Overview of Participants

ID	Main Role	Functional Role	Sector	Company Size	Gender	Age	Experience (in years)	Interview (in minutes)
M1	**Managerial**	Chief Digital Officer	Public	3.000+	Male	43	17	40
M2		Chief Digital Officer	Public	500+	Male	55	30	41
M3		Senior Partner	Consulting	100.000+	Male	56	33	39
M4		Senior Manager	Consulting	300+	Male	42	14	67
M5		Head of HR Governance	Chemicals	10.000+	Male	30	7	50
T1	**Technological**	Release Manager	Retail	50.000+	Male	52	26	41
T2		Supply Chain Manager	Retail	50.000+	Male	31	7	32
T3		IT Consultant	Retail	50.000+	Male	33	8	36
T4		Data Analyst	Logistics	50.000+	Male	32	5	37
T5		IT Manager	Consulting	500+	Male	26	5	50
T6		IT Consultant	Consulting	500+	Male	26	5	51
T7		Digitalization Coordinator	Public	5.000+	Female	33	8	39
T8		Data Science Manager	Energy	1.000+	Male	27	5	44
H1	**Hybrid**	Transformation Manager	Consulting	100.000+	Female	36	12	54
H2		Agile Coach	Consulting	500+	Male	45	23	42
H3		Change Manager	Retail	50.000+	Male	31	5	31
H4		Project Manager	Energy	50.000+	Male	27	5	45

manually verified to ensure accuracy and preserve contextual nuances. These transcripts were anonymized verbatim so that identifying details such as names, age, companies, and project titles were replaced with pseudonyms like “company name” or “age” to ensure participant confidentiality. Interviewees´ professional backgrounds ranged from operational project roles to strategic management and technical specialist positions, with people between 26 and 56 years of age (37 years on average), 88% male and 12% female having work experiences up to 33 years (12.6 years on average). This heterogeneity was intentionally pursued to capture abroad spectrum of role constellations, actor perspectives, and coordination practices. Throughout data collection, analytic comments and memos were written immediately after each interview to capture first impressions, contextual observations, and potential conceptual leads. These memos provided a crucial bridge between data collection and coding, helping to document the researcher’s evolving interpretations and reflexive stance.

3.3 Data analysis

Data analysis followed the abductive logic outlined above to examine how responsibilities are distributed and coordinated across DT phases. Building on the four-phase DT framework initially derived from the DT literature depicted in Table 1, we developed an initial coding scheme that specified (1) role type (managerial, technological, hybrid), (2) responsibilities and domains (e.g., strategy/vision, requirements and prioritization, system design and implementation), and (3) coordination mechanisms and tensions (e.g., alignment practices, escalation pathways). All transcripts were coded by the first two authors using this structured scheme, with segments assigned to the relevant DT phase(s) and role categories. During coding, we applied constant comparison across interviews to identify recurring patterns and systematic differences between role groups and phases, while remaining open to emergent subcodes that refined the initial categories where needed. Analytical memos documented coding decisions, evolving interpretations, and cross-case contrasts, enabling the synthesis of phase-specific responsibility configurations and their perceived implications for DT-phase-specific outcomes. This procedure resulted in an empirically grounded mapping of responsibilities across DT phases and the development of cross-phase patterns.

4. Results

In line with the depicted research questions, this investigation presents findings along the multi-phases of DT as derived from the literature, i.e., (1) *strategic initialization*, (2) *experimentation & implementation*, (3) *integration and transformation*, and (4) *stabilization*, examining managerial and technical roles and responsibilities throughout DT initiatives. The data reveal a consistent functional division of tasks between technical and managerial roles. However, data also highlight that this division of labor should not be understood as strictly hierarchical or sequential, but rather as complementary and interdependent.

4.1 DT Phase 1: Strategic Initialization

According to the majority of interviewees, the first DT phase *“Strategic Initialization”* entails two main core activities: definition of a strategic (re)direction (vision) and a high-level plan including overall transformation goals. While the definition of the strategic (re)direction lies with the top and executive management (M4, M5, T2, T6, H2,), technology-oriented executives (e.g., Chief Technology or Innovation Officer) advise on this strategy development, bringing internal insights and external technology trends to the discussion (T3, H4). Here, participants exemplify the CDO´s advising role on technology sensing and scouting, as well as providing

strategic evaluations (T3, M1). Describing the transformative impact of DT on organizational processes and structures (M1, M3, M5, H1), cross-functional collaboration is highlighted as key across hierarchical levels, especially at the executive level, as illustrated by M3, “The ideal case is to jointly develop the strategy with both the business and IT sides involved”. Having an overall business strategy defined, digital and IT-specific strategy derivations follow (M4, T6). Here, technology-oriented executives (e.g., Chief Technology or Innovation Officer) own and drive these, where the other executive management team shifts into a consulting role, indicating the criticality of a joint understanding as well as interconnectedness of the executives on strategic decisions. As interviewees emphasize “first and foremost, strategy and vision need to be jointly defined” (T2), and “at the beginning, for the head of IT and the executive board, the [strategic] target and scope need to be very clear to decide for greenfield or brownfield development” (T6). In this context, many participants claimed that a “vision” (M5, T2, T6) or a defined “target picture” (M3, M4, T5, H1) coming from top management acts as both a strategic and cultural compass, providing direction, legitimacy, and coherence for the whole company, as T2 warns, “If goals are not cascaded clearly from top management, then each team tends to follow its own path, and that leads to failure”.

Different participants describe different triggers for the strategy process: while some indicate general cyclical strategy evaluation processes (M4), others specify market-driven and technology-driven strategy discussion led by technology-oriented executives (M1, T5, H4). Exceptionally, the public sector is also triggered by governmental decisions and policies, as M2 showcases that DT “can be triggered by law, such as the Online Access Act or E-Government Act with which we [as a governmental institution] need to comply with”.

According to M5 and H3, supporting hybrid roles, such as change managers, get involved to facilitate collaboration and alignment between executives, but also raise awareness and sponsorship for the vision within dedicated hierarchies, as H3 illustrates, “We start by creating awareness […] sponsors are involved to legitimize the message”. Some participants declared that this overall target picture is supported by a high-level plan containing transformation goals, activities, and a time indication to which executives commit to (M3, H1) and are aligned to free up human and financial resources (M2, H4). This illustrates that this initial phase serves both strategic and symbolic functions: it aligns leadership and stakeholders, builds legitimacy, and creates emotional and cognitive readiness for change within the executive team.

4.2 DT Phase 2: Experimentation & Implementation

Participants describe multiple transformation activities and multiple actors across hierarchies in phase 2, *“Experimentation & Implementation”* that follow strategic decisions with diagnostic and design work: conceptualization activities, prototyping, use-case identification, design, and implementation of future value creation chains (M3, M5, T3, T8, H4). Herein, participants describe a triadic role constellation linking business units, IT, and hybrid or interface roles (M2, M5). This “role triangle” was described as the structural backbone of DT initiatives (M3, H4), but remains challenging in practice, as M3 depicts, “Ideally, management, IT, and business cooperate early, but in practice, business units are often integrated too late”. While the CDO typically, centrally oversees and coordinates DT initiatives holistically embodying the mandate to drive these (M2, M3), cross-functional groups team up in (agile) project setups with clear responsibilities and continuous alignment mechanisms (T3, T5) to break down overarching strategies into concrete solution proposals. Here, the oversight and sponsorship of executives remain essential, especially when tensions between domains arise, as M3 indicates, “[Typically] the Product Owner sets priorities, but if IT and business can’t agree, management has to step in”.

While cross-functionality and close collaboration are mentioned as core prerequisites, interviewees hint at distinct role distribution between managerial and technical roles (M1, M4, T5, T6). Drawing from past experiences, participants M3 and H2 emphasize the responsibility within managerial roles entering the development of tangible results: “Where IT led, results were less successful. When the business became Product Owner, it worked better” (M3), and “It makes sense to link a leadership role from the business side with the PO role. That’s where expertise and accountability lie” (H2). In this sense, executives ensure and legitimize use cases in terms of future targets and usefulness. While overall direction comes from executives legitimizing use cases in terms of future targets and usefulness, use cases are identified to ground DT initiatives in tangible applications, appointed product owners or managers of business departments organizations ensured that technology served real needs rather than abstract goals.

Whereas business department heads move into a product owner role, being accountable and responsible for a product, a development team consisting of cross-functional experts, i.e., software developers, functional experts, team up to experiment, prototype, and implement prioritized use cases (M2, M4, M5, T8, H4). In this regard, operationalization of concepts through pilots or minimum viable products (MVPs) serves as a controlled environment for experimentation and validation. Within the design and development process, “key users, […] people with domain expertise are needed” (T6), who can direct design decisions based on their own needs or represent the needs and expectancies of customers (M5, T1, T6, T8).

Considering the defined vision(s), in order to execute accurate DT activities, business departments analyze current processes, specify use cases, and depict specific target pictures of a product or of departmental workflows (M1, T6, H1). Here, participants M1, M2, T8, and H1 emphasized that DT efforts gained traction when anchored in concrete, value-driven use cases. This happens in close collaboration with technical experts such as system and solution architects, who advise and evaluate in regard to technological feasibility and requirements, architectural implications, and existing and future system landscapes. In this context, many participants see this cross-functionality as key prerequisite for a successful phase (M1, M3, M4, T8), as M3 cautions, “The worst-case scenario is when IT builds something without involving the business unit, and they end up presenting a solution that nobody can use”, and T5 exemplifies, “future-state architectures [are] work[ed] out together”. Typically, external experts are at play who consult on state-of-the-art technologies, digital possibilities, and opportunities. Here, several participants highlighted the importance of lab-like conditions that encourage experimentation (M1, M2), as exemplified by M2, “[DT] efforts needs lab conditions. [We] Try something out, see if it works; if yes, keep using it, if not, [we] move on”. In this context, developers were described to have disproportionate influence over the direction and pace of digital initiatives, particularly in agile environments, as one participant explained: “Developers are the most important ones because they heavily influence what is put in the backlog and how they want to further develop things” (H3). Their control over implementation gave them informal authority that often-outweighed formal hierarchies (M1), exemplifying that developers often serve as linchpins of transformation, quietly powerful, technically indispensable, and deeply embedded in operational knowledge (M4). The operational side evaluates the functional relevance of the MVPs, prioritizes functions, and defines acceptance criteria (M2, M3, T3).

Advocating for the transformative impact of DT on the organization, many participants highlighted the role of mediating and coordinating roles, such as project leads, change managers or business analysts (M1, M2, M5, T4, T6, H2, H3). The project lead, in particular, was described as a central coordinating actor responsible for execution and stakeholder alignment. As one participant noted, this role constitutes “a heavily coordinative role”

with significant influence over both execution and stakeholder alignment (M4), while another compared the project lead to “a ship captain” who provides direction and maintains momentum throughout implementation (M5). While the latter functioned as boundary spanners, as described by M1, “We have people who wear both hats; they understand both administrative and technical sides. These translators are worth gold”, and T6 “Sometimes key users hesitate to make decisions. That’s where we step in. We explain the consequences and bridge the gap between technical feasibility and business requirements”, change management tasks gain importance when visions and changes to the organization become more tangible. Moreover, such roles functioned as single points of contact and mediators of complexity. In order to successfully address employees' fears of job or power loss, assessing DT impacts on employees as well as developing communication campaigns to raise accurate awareness and understanding throughout the DT initiative is considered critical for DT success (M1, M2, M4, H1, H2, H3). One participant put it plainly: “Digital transformation stands and falls with the human factor” (M4); another emphasized the need for inclusive communication: “The desire to change has to be created in everyone. That’s why we talk about how change will impact you, your work, and your customers” (H3), while another pointed out: “There’s a fear of losing power, of not being able to lead or control anymore” (H2). Addressing such fears required human-centered approaches, as illustrated by a case of simplified communication: “I explained it to a colleague as I would to a child, and she immediately called IT and said: I want this now” (M1).

Executive actors remain involved throughout the experimentation phase by providing strategic sponsorship, securing resources, and legitimizing transformation efforts (M2, H1, H4). Participants emphasized that executive support is particularly important for maintaining momentum and resolving organizational tensions, highlighting the CDO, “The CDO should be promoter, critic, and enabler; while the organization operates in ‘lab mode,’ allowing for experimentation and low-risk failure” (M2). As one interviewee noted, “Management usually takes the sponsor role. They monitor progress and decide if the project delivers value” (H4). Executive Leadership in this phase was described as adaptive and situational, requiring executives to balance oversight with empowerment. As summarized by one participant, “Management should step in when needed and step back when it’s not, that’s when it works best” (H4).

4.3 DT Phase 3: Integration & Transformation

Phase 3 *“Integration & Transformation”* follows successful piloting and is characterized by broader deployment and integration activities of digital technology in value creation chains (M2, M3, M5, T3, T5, T8, H1, H2, H3, H4). With this phase, concepts and prototypes become operational, putting new systems and routines to a test under real conditions, with which all organizational members get affected by the transformation. As frictions between new workflows and habits frequently occur, leadership support, communication and feedback mechanisms are essential for this transition phase (M3, M5, T6, H2, H3). As T6 showcases, “the [scaling] phase, […] is where things can go wrong. You work with many teams and roles, and that’s where misunderstandings arise that can [affect the whole organization]”. Additionally, leadership was frequently portrayed as a dual role: setting vision while removing obstacles. “When management sets clear goals, communicates openly, and removes obstacles, transformation usually succeeds” (M3). Here, leadership was portrayed to shift from directive to facilitative (H2, H4) and in a role-modeling role (M2, H2, H3). “Leadership moves from managing to leading; relying on competence, experience, and motivation rather than micromanagement. It’s about explaining why we do this, who benefits, and what the outcome is” (H2). By contrast, lack of involvement undermined credibility (M2, T3, H1), as T3 emphasizes, “Some leaders delegate everything about transformation - that’s when projects lose

momentum". Top-down communication was seen as a key mechanism for maintaining alignment and momentum in DT initiatives. Several participants described how strategic intent needed to be clearly articulated to avoid confusion and disengagement (M2, M3, H2, H3). "If leadership doesn't communicate clearly why we are doing this, people don't see the relevance. Then every new digital project looks like the next management experiment" (H3). In this sense, promotion by the CDO was experienced as impactful on DT initiative traction, as reported by M2, "When our CDO said publicly that the project is a top priority, things suddenly moved faster. You could feel that departments took it more seriously". "Change begins at the top; if management does not take it seriously, it becomes extremely difficult for the rest," states M3, emphasizing the role of leadership in initiating and role-modeling the transformation.

For this phase, participants hint at an increase in operational staff involvement (T6, T8, H2), where business departments are accountable for adopting and appropriating new ways of working in daily business operations (T4, T5, H4). Portraying transition management as a phased process of embedding change into day-to-day operations, T4 describes knowledge transfer practices and gradual ownership shifts from technical to business people, exemplifying, "We bundled key users from different regions and held weekly sessions to present new developments and updates" (T4). Moreover, engagement of technical roles decreases and shifts from overall development activities to system support and continuous improvement activities (M4, T4). The initial development delivery happened in DT phase 2, "the internal DevOps team continues to develop smaller features" (M4). This shift from one-time change events to continuous support indicates the normalization of digital practices in everyday operations.

While the holistic ownership for the initiative stays with CDO/CTO/CIO, business department heads account for adoption success for their departments (M2, M3, T8, H3). Reporting from a business perspective, department heads and/or project managers develop "rollout plans with milestones, KPIs, and readiness checkpoints" (M2) and regularly "monitor adoption rates" (H3). In parallel, change management activities increase in order to provide structural and cultural enablement required highlighted as essential for the transformation phase (M3, T2, T6, H2), as H2 emphasizes, "change guidance is an essential success factor in such overarching [transformation] initiatives". While different change frameworks are mentioned, providing a space for participation for the transformation-affected employees is common ground throughout the interviewees (T2, T6, H3, H2). Change management activities aim to secure behavioral change through stakeholder-specific training measures, feedback loops, and ongoing (centralized) communication (M3, T2, H3) for orchestrating both individual and collective adoption of new ways of working and new value creation paths (T6, H2). T6 underlines the importance of holistic integration: "There is a change manager, a training coordinator, key users, and end users; basically the whole organization is affected" (T6), highlighting the need for distributed engagement across levels.

In this context, several participants highlighted the importance of digital ambassadors, citizen developers, informal initiators, and influential organizational members as key actors in fostering transformation adoption (M2, M3, M4, T5, T6 T8, H1). These actors served as trusted interfaces across departments, promoting new tools, gathering feedback, and translating transformation efforts into operational practice (M4, T6, H1). As one participant noted, "We defined people in every project […] who would immediately work with the tools and carry them forward into the organization" (H1). Transformation momentum was often reinforced through bottom-up activation, as business units themselves initiated and advocated digital solutions in response to emerging needs (M3, M2, T8). Beyond formally assigned roles, informal influencers also played a critical role despite lacking

formal authority. Through expertise and credibility, they mobilized peers and accelerated adoption, as “people who can convince others better than management […] are the ones who actually get things moving” (M4). Particularly in agile environments, these relational actors helped bridge strategic intent and operational practice by motivating colleagues and fostering ownership (T5, T8), highlighting the importance of locally embedded actors who legitimize and embed DT-driven changes in everyday work.

4.4 DT Phase 4: Stabilization

After integrative and transformational activities, participants report that organizations turned their focus to sustaining and “stabilization” of the transformation (M2, T5), aiming to turn the transformation into a permanent organizational capability (M2, M5, T7, T8, H2, H3). Here, many participants indicate that DT-related activities decrease, and selected roles, especially on lower hierarchical levels, stay in charge of support and improvement responsibilities (M2, M5, T6, T8, H2, H3). While technical actors refer to “hypercare” activities in order to refine and improve IT- and process-related needs, technical actors move into a stable support and guidance role, having captured newly integrated digital processes in their (operational) IT support portfolio (M5, T4, T6, T8). In this sense, technical responsibility lies with monitoring system performance and ensuring operational stability (M4, T2, T4).

Selected operational roles (e.g., product owner, digital ambassador) handle and drive continuous improvement of product-related processes or value creation chains to address new requirements are addressed and process improvements are initiated (T6, H1, T5, M4, T8, M3, M2). “We keep project groups alive even after implementation” (M2). Further, executives do not present specific DT-related roles, responsibilities, and tasks. Moreover, while sponsorship and ownership is still with technical executives, it is strongly shared with the appointed operational roles. The operational side is responsible for anchoring the solution within the organization, measuring its impact, and moderating feedback from the specialist departments (M2, M3, T8, H3).

In this context, hybrid roles such as change manager but also HR roles continue to provide training and engagement to the organization to drive further appropriation of DT initiatives addressing the vision of DT (M2, M5, T5, H3), as M2 exemplifies, “We want to convince people by value, not enforcement […] we [continue to] offer trainings and create engagement”. Indicating high change dynamics in today´s business environments, many participants emphasize the importance of continuous accompaniment by change management, as M5 illustrates, “Continuous transformation feels like a journey into nowhere”.

5. Discussion

5.1 Summary of Key Findings

This study set out to examine what responsibilities technological and managerial actors assume across DT phases and how the distribution of these responsibilities influences phase-specific outcomes. Building on the four phases derived from the literature, our findings reveal a patterned yet dynamic configuration of responsibilities that evolves over time. The findings demonstrate that DT unfolds as a phase-dependent reconfiguration of managerial, technological, and hybrid responsibilities. Rather than confirming a linear handover from strategy to implementation, the data support a model of evolving co-ownership in which responsibility shifts in emphasis but remains interdependent across domains. Table 4 synthesizes the empirical

findings by mapping phase-specific transformation activities to managerial, technological, and hybrid actors, illustrating how responsibility constellations evolve across the DT phases.

First, responsibilities are clearly differentiated but functionally interdependent. Managerial actors dominate early-phase visioning, direction setting, and legitimacy creation, while technological actors contribute to technology sensing, feasibility assessments, and architectural guidance. As DT progresses into experimentation, business-side product ownership becomes critical for grounding use cases in value creation logic, whereas developers and architects gain substantial operational influence over implementation trajectories. Hybrid actors (e.g., project leads, change managers, digital translators) emerge as central boundary spanners who coordinate meaning, requirements, and expectations across domains. Table 4 provides a synthesis of the empirical data.

Second, the influence of responsibility distribution on phase outcomes becomes particularly visible in the experimentation and integration phases. Projects were described as more successful when business actors assumed ownership of prioritization (e.g., product owner role), while IT retained authority over architectural coherence and technical realization. Conversely, when either domain dominated unilaterally, e.g., IT-led solution building without business anchoring, misalignment and limited adoption followed. Thus, DT success appears less dependent on formal authority structures and more on synchronized cross-domain collaboration.

Third, the integration phase marks a shift from solution development to organizational embedding. Here, managerial responsibilities transform from strategic direction to symbolic communication, obstacle removal, and motivational role modeling. Technological responsibilities shift toward support, refinement, and stability assurance. Adoption success hinges on change enablement mechanisms, training, feedback loops, and narrative framing, often orchestrated by hybrid and HR roles. Informal influencers and digital ambassadors play a decisive role in translating strategic intent into everyday practice, highlighting that transformation effectiveness extends beyond formal governance structures.

Table 4
Distribution of managerial, technological, and hybrid roles and responsibilities across DT phases

DT Phase	Managerial Responsibilities	Technological Responsibilities	Hybrid Responsibilities
Strategic Initialization	Executive Management (CEO, Board) • *Visioning and set strategic direction overall incl. DT* • *Allocate budget and resources; legitimize DT initiatives organization-wide*	CDO / CIO / CTO • *Sense, scout and evaluate technological opportunities and risks* • *Advise for and assess feasibility of DT agenda* • *Derive IT/digital strategy from overall business strategy/vision* Enterprise Architects / Senior IT Experts • *Provide architectural constraints and system landscape insights*	Change Manager • *Set up strategic communication to raise awareness for the vision and upcoming transformation across the organization* Transformation Managers / Strategy Facilitators • *Coordinate cross-executive alignment* • *Translate strategic goals into initial transformation roadmap*
Experimentation & Implementation	Executive Management • *Sponsor, promote, and empower for DT initiatives* • *Resolve organizational tensions and conflicts between IT and business* Business Unit Leaders / Product Owner • *Align departmental strategy with digital strategy* • *Articulate department goals and priorities* • *Define and prioritize use cases (and acceptance criteria)* • *Ensure business value alignment*	CDO / CIO / CTO • *Monitor and report overall DT initiative progress* • *Resolve conflicts between IT and business* • *Ensure strategic alignment* Enterprise Architects • *Design future IT architecture (and evaluate integration with existing systems)* IT Specialists /Software Developers / Engineers • *Develop prototypes and MVPs* • *Implement digital solutions, maintain backlog items, conduct testing, and iteration cycles*	Project Leads / Program Managers • *Coordinate cross-functional teams and ensure project execution* Business Analysts / Requirements Engineers • *Translate business requirements into technical specifications* Key Users / Domain Experts • *Provide operational knowledge and validate functionality* Agile Coaches / Scrum Masters • *Facilitate agile collaboration between business and IT teams*
Integration & Transformation	Executive Management • *Communicate transformation vision and provide symbolic support*	CDO / CIO / CTO • *Monitor and report overall DT initiative progress*	Change Manager / HR • *Coordinate organizational change initiatives; conduct communication campaigns; manage resistance*

DT Phase	Managerial Responsibilities	Technological Responsibilities	Hybrid Responsibilities
	• *Remove organizational barriers* Business Unit Leaders / Product Owner • *Enforce adoption of new processes and value creation chains in unit(s)* *Integrate digital solutions into operational workflows*	• *Resolve conflicts between IT and business* Operational IT / DevOps Teams / System Engineers / Platform Teams • *Refine and scale digital solutions*, • *Maintain infrastructure and ensure performance during rollout* *Stabilize systems and provide technical support*	• *Develop training programs and conduct capability development* Project Leads / Program Managers • *Coordinate rollout activities and stakeholder alignment* Digital Ambassadors *Promote tool adoption, support local implementation, collect feedback*
Stabilization	Business Unit Leaders / Product Owner • *Oversee long-term use of digital solutions and routinization of new value creation chains* *Identify improvement opportunities.*	Operational IT / Platform Teams • *Ensure system / infrastructure reliability* *Maintain systems, and monitor/report performance metrics*	Change Manager / HR • *Maintain training programs and capability building* Digital Ambassadors / Key Users *Support continued adoption and identify incremental improvements*

5.2 Theoretical Contribution

This study advances the actor-oriented and process-oriented streams of DT research by empirically integrating them. Contributing to the avenues invited by Vial (2019) and Wiener et al. (2025) to unpack individual organizational actors (in big corporations) and their responsibilities from a temporal perspective, the findings provide fine-grained evidence of how responsibilities are enacted and renegotiated across transformation phases. By mapping cross-functional responsibilities onto a phase-based DT logic, the study translates abstract process models into observable interaction patterns. Moreover, the data at hand supports and extends the perspectives of Iden and Bygstad (2025) and Karabag et al. (2026) by collecting evidence across organizations and industries. In particular, we postulate three contributions.

First, the findings refine phase-based DT models by demonstrating that phases are not merely activity clusters but responsibility constellations. Each phase is characterized by a distinct dominant configuration: (1) In *strategic initialization*, responsibility is management-led (i.e., executive management sets direction and legitimizes the transformation) and technology-advised (i.e., technology executives advise by technology sensing and feasibility assessments); (2) in *experimentation and implementation*, responsibility is shared in a triangle between business units who own priorities and use cases, IT specialists who own architecture and technical realization, and hybrid actors who broker between the two; (3) in *integration and transformation*, responsibility stays business-owned (i.e., business department heads account for adoption of new ways of working in their units), while hybrid roles, such as HR, support by orchestrating change enablement; and (4) in stabilization, responsibility becomes operationally distributed. This adds temporal granularity to existing

frameworks and empirically substantiates the adaptive, iterative nature of DT emphasized by processual perspectives (Wessel et al. 2021; Iden and Bygstad 2025; Wiener et al. 2025; Karabag et al. 2026).

Second, the study contributes to the socio-technical perspective of DT (Vial 2019; Wessel et al. 2021; Wiener et al. 2025) by foregrounding cross-functional interaction and coordination as a key necessity for DT. DT emerges from joint coordination and alignment mechanisms and negotiated responsibility shifts between business and IT domains who jointly define and enact value creation transformation. In this sense, DT becomes visible as a socio-technical coordination practice rather than a technology-centric initiative. This perspective expands the socio-technical lens proposed by Vial (2019) and others Iden and Bygstad (2025) by highlighting that successful DT is not merely about aligning technology and structure but about synchronizing human sensemaking and systemic adaptation. The study, therefore, underlines a multi-actor coordination logic exemplified especially by hybrid roles who bridge functional silos and foster alignment and collaboration between technological and business domains and hierarchies.

Finally, while flow-oriented perspectives (e.g., Baygi et al. 2021; Plattfaut and Kautz 2025) conceptualize DT as continuous socio-technical becoming, our phase-based lens offers a complementary, analytically structured view. Rather than assuming discrete stages as ontological entities, the study uses phases as heuristic anchors to examine shifting responsibility logics. This clarifies when and how coordination mechanisms intensify, shift, or stabilize, thereby offering a structured micro-analytic contribution within broader transformation flows.

5.3 Practical Implications

Organizations should consider five implications in pursuing DT success. First, considering the multidimensionality logic of DT (multi-impact, multi-phase process, and multi-actor involvement), a clear governance of roles and responsibilities for DT initiatives is required. While DT is top-down driven and set, the involvement and engagement of employees from managerial, technological, and hybrid domains throughout hierarchies are necessary to bring DT to success. Therefore, setting up a governance with clear responsibilities for DT initiatives, especially for phases two to four, supports coordination and alignment between domains and allows clarity on who and how contributes to the vision defined by executive management in phase 1. Having in mind that DT is also characterized by high complexity and high change dynamics, a governance set-up should allow for adjustments rather than being very rigid in order to react to unforeseen organizational needs. Effective transformation governance combines centralized strategic guidance with decentralized decision autonomy. Especially in exploratory or post-implementation phases, rigid control mechanisms tend to inhibit learning and responsiveness. Instead, organizations should institutionalize ambidextrous governance that integrates clear frameworks with local discretion. Second, the findings highlight that DT processes unfold in partially predictable, yet adaptive sequences.

Organizations should therefore implement phased transformation architectures with embedded feedback loops that permit reflection and iteration between phases. Such structures support flexibility without dissolving accountability ensuring that transformation remains both agile and governable. Third, hybrid roles (e.g., digital ambassador, change manager, (agile) coaches) should be institutionalized and enabled to function as boundary-spanning mediators between technical and business domains. These roles often emerge informally, yet they are pivotal in translating requirements, moderating tensions, and sustaining adoption. Formal recognition and capability development of such roles can strengthen cross-domain coherence. Fourth, business ownership of use cases during experimentation is critical. Assigning product ownership to business-side leaders enhances

accountability and user alignment, while IT ensures architectural integrity. Clear but complementary domain ownership reduces misalignment risks. Fifth, the study also underscores the social and narrative dimension of transformation. DT initiatives succeed when participants perceive them as meaningful, fair, and coherent with organizational identity. Based on the criticality of a DT vision, leadership across hierarchies should therefore emphasize narrative framing and collective ownership. Internal communication, role-based onboarding, and participatory sensemaking rituals can reinforce shared understanding and sustain motivation throughout transformation phases.

5.4 Limitations & Indications for Future Research

This study is subject to several limitations that should be considered when interpreting the findings. First, while DT represents a longitudinal and evolving organizational phenomenon, participants primarily reported on their involvement in specific DT phases rather than having experienced the full transformation trajectory from initiation to stabilization. Moreover, as interviewees reflected on roles and responsibilities from their own technical, managerial, or hybrid standpoint, their accounts may emphasize localized experiences while overlooking broader organizational dynamics. This perspective-dependent reporting may introduce bias and limit the completeness of the reconstructed transformation process. In this context, relying on retrospective reports inherently involves risks of recall bias and interpretive selectivity. Some participants provided fragmented or non-phase-specific accounts, while others implicitly equated digital transformation with narrower forms of technology adoption or IT-enabled organizational change. Although interviewees were selected for their expertise, such definitional variation occasionally required analytical interpretation by the researchers to situate accounts within a process perspective. Second, the scope of the investigation is geographically and culturally bounded. All 17 interviews were conducted with participants from organizations operating in German-speaking countries. This regional concentration may reflect specific governance traditions, hierarchical norms, and communication patterns that differ from those in other cultural contexts. Consequently, the findings should be interpreted as context-sensitive. Third, although the sample covered a wide range of technical, managerial, and hybrid roles, certain relevant actor groups were not systematically represented. In particular, perspectives from dedicated innovation hubs or corporate IT governance boards were not explicitly included. These actors often play important integrative and coordinating roles at the portfolio or organizational level, and their absence may limit the completeness of the empirical representation of transformation governance. Finally, the gender composition of the sample was imbalanced, with only two female participants. This imbalance may limit the diversity of perspectives captured and restrict the ability to explore potential gender-related differences in transformation roles, leadership, and coordination dynamics.

Future research may address these limitations by conducting cross-cultural comparisons, industry-specific analyses, and by incorporating a broader range of organizational actor groups with more balanced gender representation. Such efforts would allow scholars to assess how institutional contexts, sectoral characteristics, and diverse actor constellations shape responsibility configurations across digital transformation phases, thereby further refining and extending the proposed framework.

6. Conclusion

By examining responsibilities across DT phases, this study brings evidence that DT unfolds through phase-specific coordinated action across multiple actors. DT unfolds as an evolving configuration of co-owned responsibilities in which managerial and technological roles, but also hybrid actors interact dynamically. The

proposed responsibility-based perspective1 contributes a fine-grained temporal and actor-centered refinement to contemporary DT research and offers organizations a structured lens to govern and set up DT initiatives.

Declarations

Author Contribution

Authors 1 and 2 conceptualized the study, collected and analyzed the data, and wrote and revised the main manuscript text. Author 3 supervised the study and reviewed and edited the manuscript. All authors read and approved the final manuscript.

Data Availability

The interview data generated and analyzed during the current study are not publicly available, as participants consented only to the storage and analysis of anonymized transcripts by the research team, and sharing the data could compromise participant confidentiality. Anonymized quotations supporting the findings are included in the article. The interview guide is provided in Appendix 1 of the article.

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