Understanding Internal Conditions for Digital Transformation in Service Organisations

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Abstract

Digital transformation promises more than new technologies. For service organisations, it offers opportunities to rethink how people, processes, and systems work together to deliver value. Yet realising these opportunities can prove difficult when established responsibilities, competing priorities, and disconnected systems continue to constrain coordination, even after new digital services become operational. While digital transformation research has increasingly recognised the importance of organisational capabilities and change processes, less attention has been directed towards how persistent intra-organisational tensions and misalignments shape resource integration across interconnected service exchanges. This thesis investigates how strategic, organisational, and socio-technical conditions influence the capacity of service organisations to facilitate value realisation. Drawing on paradox theory and Service-Dominant Logic, the research examines how organisations navigate competing demands for stability and innovation, how internal misalignments constrain resource integration, and how socio-technical coordination practices help maintain or recalibrate the organisational conditions supporting value realisation.

Adopting a qualitative research design informed by critical realism, the thesis combines secondary materials with 33 semi-structured interviews involving digital transformation practitioners across service organisations. The analysis developed through inductive engagement with empirical material and subsequent abductive interpretation, bringing emerging findings into dialogue with relevant theoretical perspectives. Two complementary manuscripts examine different dimensions of the overarching research problem. The first focuses on paradoxical tensions between tradition and innovation in the New Zealand insurance sector, while the second examines intra-organisational misalignment and socio-technical coordination across service organisations.

The first study identifies four strategic orientations towards the tradition–innovation paradox: *Operational Continuity, Incremental Adaptation, Foundational Modernisation*, and *Dynamic Reimagining*. It also develops a typology of dynamic equilibrium mechanisms through which organisations may continually address competing demands for operational stability and digital innovation. The second study identifies structural, metric, and cultural-interpretive misalignments that constrain internal resource integration. It conceptualises *value attenuation* as the progressive weakening of value-realisation capacity arising when persistent organisational

misalignments constrain resource integration across nested service exchanges. The study further identifies four socio-technical coherence practices (*Shared Signals, Temporal Orchestration, Augmented Integration*, *and Informed Narratives*) through which actors may maintain and/or recalibrate institutional coherence. AI-enabled systems may help people connect information and recognise dependencies across teams. Whether they perform this bridging function depends on how they are configured, governed, and incorporated into everyday work.

Together, the studies explain how organisations navigate competing demands, how internal misalignments make coordination more difficult, and how people use organisational and technological resources to respond. The thesis contributes to paradox theory by differentiating strategic orientations and dynamic equilibrium mechanisms, and to SDL-informed service research by developing *value attenuation* as a concept and identifying socio-technical micro-foundations of institutional coherence. Importantly, it distinguishes organisational capacity to facilitate value realisation from value itself, which remains contextually and phenomenologically determined by beneficiaries, whether internal or external to the organisation. Practically, the findings offer service organisations ways to recognise emerging coordination frictions, navigate competing transformation priorities, and develop practices that sustain or recalibrate their capacity to facilitate value realisation.

Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning. AI was used to proofread the thesis, offer grammar suggestions to improve readability, compare other thesis examples to highlight potential areas of congruity, and identify repetition in language and ideas (see Appendix 1: Artificial Intelligence Declaration).

Chris Myhre

15th April 2026

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Co-authorship contribution declaration

The co-authorship declarations for Chapters 4 and 5 refer to the manuscripts submitted to the journals for publication. The co-author's contributions were predominantly in a supervisory and mentor capacity. The primary author conducted data collection planning and execution, thematic coding and data interpretation, the article concept and design, significant manuscript drafting and revision, both article submission processes, and iterative ideation for each article section. All co-authors agreed to the secondary author role and adhered to the agreements set out in the AUT Research (Co)Authorship Protocol guidelines.

Figure I: Manuscript 1 co-author declaration

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Figure II: Manuscript 2 co-author declaration

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Chapter 1: Introduction

"*The secret of change is to focus all of your energy not on fighting the old, but on building the new.*" — Socrates.

Preface

This chapter introduces the thesis and establishes its focus on the internal organisational conditions shaping digital transformation in service organisations. It outlines the research background and motivation, defines the central problem, identifies three interrelated research gaps, and presents the overarching research aim and questions. The chapter also establishes the significance of examining digital transformation through strategic, organisational, and socio-technical perspectives, particularly in relation to how these conditions influence resource integration and the capacity to facilitate value realisation. It concludes by defining key terms and outlining the structure of the thesis. Chapter 2 then reviews the relevant literature and establishes the theoretical foundations for the empirical studies.

1.1. Background

Digital transformation is now central to marketing and service research as organisations use digital technologies to reconfigure service processes and support value realisation. There is pressure to innovate due to new technologies, changing customer expectations, and evolving regulations (Nambisan et al., 2017; Verhoef et al., 2021). Organisations invest heavily in digital initiatives, yet many struggle to translate these efforts into improved service quality, customer experience, or long-term results (Hanelt et al., 2020). This gap suggests digital transformation challenges are not just about adopting technology. Instead, they concern the organisational conditions under which change is enacted and value realisation is facilitated. For marketing, these internal conditions are not only operational; they shape whether value propositions succeed in practice.

This thesis fits within that wider landscape but takes a specific focus. It examines service organisations, where value is created through ongoing interactions, information flows, and coordinated service processes, not through the production of tangible goods. In this setting, digital transformation involves how work is organised, how decisions are made, and how the organisation understands change. Most research focuses on technology adoption, customer-facing innovation, or market-level trends (Lemon & Verhoef, 2016). This research instead uses an

internal, or intra-organisational, perspective to examine how service organisations' internal conditions shape resource integration and the capacity to facilitate value realisation during digital transformation.

Service organisations worldwide invest heavily in digital technologies to boost operational efficiency, coordination, and customer value. Global spending on digital transformation may reach or exceed USD 2.98 trillion in 2026 (Statista, 2026). Despite this, evidence shows a persistent gap between the promises of technology and its actual value. Research shows many digital transformation initiatives miss their targets (Babbar et al., 2023), and organisations often struggle to turn new capabilities into lasting improvements (Vial, 2019; Nadkarni & Prügl, 2020). This suggests the real challenges of digital transformation are less about technology and more about organisational conditions and coordination practices (Barrett et al., 2015; Vink et al., 2020).

Existing digital transformation research has produced important insights, but critical questions remain about how digital change is interpreted, enacted, and coordinated within service organisations. Value creation depends not only on technological capability but also on the alignment of organisational structures, cultural norms, measurement systems, and interpretive processes that enable coordinated service work (Barrett et al., 2015). When these internal elements become misaligned, organisations can experience coordination frictions that constrain resource integration and progressively weaken the capacity for subsequent value realisation (Laud et al., 2019; Vink et al., 2020). This is especially evident in highly regulated service sectors, where organisations must balance the need for reliability, stability, and compliance with pressures for ongoing digital innovation.

This thesis examines how internal organisational conditions, tensions, and coordination processes shape resource integration and the capacity to facilitate value realisation during digital transformation in service organisations. The motivation for investigating these relationships emerged from both the challenges identified in existing research and observations accumulated through professional experience in digital transformation and marketing. These motivations are discussed in the following section.

1.2. Motivation for the Research

The motivation for this research came from observing persistent challenges that service organisations faced in translating digital transformation initiatives into sustained improvements and anticipated benefits. Although contemporary digital innovations offer opportunities to reconfigure service processes, enhance coordination, and support value realisation, their implementation frequently encounters organisational constraints that extend beyond technological design. Legacy structures, competing performance priorities, fragmented responsibilities, and cultural differences may impede the integration of resources needed to realise these opportunities. Understanding how such conditions interact is important for explaining why digital transformation initiatives can achieve visible technical milestones while struggling to deliver sustained organisational benefits. Over more than two decades in digital agencies and in-house digital teams, I repeatedly encountered a similar problem: new technologies were introduced, but the organisational arrangements around them were harder to change. These experiences sharpened my interest in why digital initiatives could achieve technical milestones yet struggle to deliver sustained improvements.

Digital transformation is frequently approached as a succession of discrete projects rather than an ongoing reconfiguration of organisational structures, processes, and capabilities. Consequently, customer-facing digital improvements may be layered over largely unchanged back-end systems and siloed organisational arrangements. These difficulties are particularly consequential in regulated service sectors, where organisations must reconcile operational reliability and compliance with pressures to innovate. Short-term delivery priorities can further reinforce existing arrangements, limiting opportunities to address underlying coordination problems and increasing the likelihood that organisational frictions persist beyond the implementation of individual initiatives.

These patterns align with concerns raised in recent marketing and service research about the persistent gap between digital ambition and realised value, and the need for more practice-centric insight into why that gap persists. Organisations often lacked an adequate understanding of digital transformation's long-term implications. Digital projects that appeared successful at launch often encountered incremental internal frictions as systems, metrics, and teams diverged, progressively constraining coordination and the capacity to realise anticipated benefits rather than producing a dramatic project failure. More recently, AI tools have often been deployed

for narrow automation rather than to improve internal coordination and understanding. These experiences reinforced the need for a theoretically grounded examination of how internal organisational conditions shape resource integration and value realisation, while remaining connected to managerial realities. Building on this broad view of digital transformation, the thesis turns to paradox theory, internal misalignment, SDL, value formation, and the emerging role of AI in internal coordination.

Finally, this research aims to bridge the gap between digital transformation findings in academic research and practical applications in commercial environments. Through many informal conversations, practitioners have often noted that research articles are difficult to translate into operational processes and fail to address the realities faced by senior practitioners responsible for digital transformation. These conversations influenced the methodological design of this thesis: senior practitioners with substantial digital transformation experience were deliberately sought out to provide diverse perspectives. As a result, the manuscripts focus on intra-organisational conditions rather than solely on customer-facing outcomes, and the insights support the development of typologies and frameworks. The thesis, therefore, is motivated not only by theoretical questions but also by a desire to provide insights that are recognisable and usable for those leading digital transformation initiatives in service organisations.

1.3. Problem Statement

The central problem addressed in this thesis is the limited understanding of how internal organisational conditions and coordination practices shape resource integration and the capacity to facilitate value realisation during digital transformation in service organisations. Existing research identifies organisational culture, legacy systems, governance, and resistance to change as important influences on digital transformation (e.g., Hanelt et al., 2020; Loonam et al., 2018; Hinings et al., 2018). However, these factors are often examined individually or treated as implementation challenges rather than as interconnected conditions that influence how digital transformation unfolds over time. Consequently, further explanation is needed of how these internal conditions interact and why digital initiatives that appear technically successful may nevertheless under-deliver, stall, or generate uneven benefits across service organisations.

Despite substantial global investment in digital transformation (Statista, 2026), many service organisations struggle to realise the anticipated benefits of their initiatives. These difficulties arise not only from technological limitations but also from persistent tensions between operational

stability and innovation, misalignments across organisational structures, performance measures, and interpretive arrangements, and challenges in coordinating resources across interconnected service processes (Vial, 2019; Warner & Wäger, 2018; Barrett et al., 2015; Vink et al., 2020). Although digital transformation research increasingly recognises the importance of these organisational conditions, less attention has been directed towards how they interact and accumulate to constrain resource integration over time. Similarly, while SDL and related service research recognise that value formation is dynamic, processual, and potentially negative, they provide less specificity regarding how persistent intra-organisational misalignment may progressively weaken the capacity to facilitate subsequent value realisation while service activities continue (Plé & Cáceres, 2010; Echeverri & Skålén, 2021; Alexander & Vallström, 2023). The increasing integration of AI-enabled systems introduces an additional socio-technical dimension, raising questions about whether and under what conditions these technologies may support or further constrain internal coordination.

This thesis addresses these issues through two interrelated qualitative studies examining complementary dimensions of digital transformation in service organisations. The first draws on paradox theory to investigate how organisations navigate competing demands for stability and innovation, while the second employs SDL to examine intra-organisational misalignment, value attenuation, and the potential role of AI-enabled systems within socio-technical coordination practices. Together, the studies investigate how strategic positioning, organisational arrangements, and coordination practices shape resource integration and the conditions supporting value realisation during digital transformation. The following section translates this overarching problem into three research gaps that inform the thesis aim and research questions presented in Section 1.5.

1.4. Research Gaps

This section elaborates on three interrelated gaps arising from the problem statement and shaping the research design. The first gap concerns how service organisations navigate the paradoxical tensions inherent in digital transformation. Organisations must maintain operational stability to serve existing customers and meet regulatory requirements while pursuing innovation to remain competitive (Smith & Lewis, 2011). Legacy systems provide operational continuity but can constrain digital agility and complicate new initiatives (Heracleous & Werres, 2016). These

tensions are particularly visible in highly regulated sectors such as insurance, financial services, and healthcare, where compliance requirements may limit experimentation and amplify the risks associated with organisational change.

Paradox theory provides an established conceptual basis for understanding persistent competing demands and the organisational responses through which they are managed (Smith & Lewis, 2011; Schad et al., 2016). However, further explanation is needed of how organisations in traditional service sectors position themselves in relation to competing stability and innovation demands during digital transformation, and how particular dynamic equilibrium (DE) mechanisms enable these tensions to be navigated in practice. Organisations may preserve short-term stability by retaining legacy systems while experimenting with new digital capabilities at the margins, or they may pursue more substantial organisational reconfiguration. Yet the relationship between these strategic approaches, the mechanisms used to manage persistent tensions, and the internal conditions supporting digital transformation remains insufficiently specified (Eggert et al., 2022; Erdogan et al., 2019; Carmine et al., 2021). This gap motivates the examination of tradition–innovation positioning and DE mechanisms in Study 1.

The second gap concerns how persistent intra-organisational misalignments constrain resource integration and progressively weaken value-realisation capacity during digital transformation. SDL provides an established theoretical perspective on service exchange, resource integration, beneficiary-determined value, and the institutional arrangements through which actors coordinate value co-creation (Vargo & Lusch, 2016). Its emphasis on interconnected service ecosystems is particularly useful for understanding organisations as configurations of resource-integrating actors. However, while SDL scholarship has extensively examined customer-facing and inter-organisational service relationships, it provides comparatively less specificity regarding how persistent coordination frictions develop and accumulate within organisations undergoing digital transformation (Brodie et al., 2019). Such frictions may arise through structural fragmentation, conflicting performance measures, cultural resistance, and divergent strategic interpretations that constrain coordinated resource integration (Leonardi, 2011; Barrett et al., 2015; Spee & Jarzabkowski, 2017).

Related service research increasingly recognises that value formation is dynamic and processual rather than reducible to discrete positive or negative outcomes. Research on value co-destruction, resource misintegration, diminution, reductive value formation, and processes of

recovery demonstrate that resource integration may change over time and have uneven consequences for participating actors (Plé & Cáceres, 2010; Vafeas et al., 2016; Echeverri & Skålén, 2021; Alexander & Vallström, 2023). Nevertheless, less attention has been directed towards the cumulative intra-organisational processes through which persistent misalignment may progressively constrain resource integration while service activities continue. Building on this literature, the thesis develops value attenuation as a mid-range process concept describing the progressive weakening of value-realisation capacity across nested service exchanges. Its focus is not an intermediate value outcome between co-creation and co-destruction, but deterioration in the organisational conditions through which subsequent value realisation is facilitated. This gap motivates Study 2's examination of organisational misalignment and value attenuation during digital transformation.

The third gap concerns the role of AI-enabled systems in intra-organisational coordination and their implications for resource integration during digital transformation. Service and marketing research has examined AI extensively in relation to customer-facing applications, service automation, and the redesign of service encounters (Huang & Rust, 2018; Rust, 2019). Although these contributions provide important insights into AI-enabled service delivery, comparatively less attention has been directed towards how AI-enabled systems function within the internal coordination processes through which organisational actors integrate resources across interconnected service exchanges. Organisational research has begun to examine how AI shapes information visibility, decision-making, and work practices, including through pattern recognition, prediction, anomaly detection, and recommendations that inform human judgement (Wirtz et al., 2023; Murray et al., 2020). These developments raise questions about whether particular AI-enabled configurations may perform operant functions by acting on other resources and influencing coordination across organisational boundaries.

SDL and related service research provide a basis for examining technologies as resources whose functions depend on their configuration within wider service systems (Payne et al., 2021). However, less is understood about how AI-enabled systems interact with persistent intra-organisational misalignments and the socio-technical practices through which actors attempt to maintain or restore institutional coherence. AI-enabled systems may improve visibility, support information integration, and inform coordination, but their effects depend on human expertise, organisational routines, data quality, governance, and existing institutional arrangements. Under

different conditions, their use may also reinforce fragmented priorities or introduce additional coordination frictions. This leaves scope to investigate whether, and under what conditions, particular AI-enabled configurations may perform bridging operant functions within internal service coordination. Study 2 examines this possibility alongside organisational misalignment and value attenuation, without assuming that AI necessarily repairs coordination breakdowns or independently determines value outcomes.

These gaps matter for both theory and practice. Without a clear understanding of how organisations navigate stability–innovation tensions and how their strategic responses shape internal coordination, practitioners lack guidance for managing digital transformation beyond technology selection and project delivery. Although service research increasingly recognises processual and uneven value formation, the cumulative effects of persistent intra-organisational misalignment on resource integration and value-realisation capacity remain less clearly specified. Similarly, while AI research provides important insights into automation, service encounters, and organisational decision-making, its contingent role within internal socio-technical coordination practices remains comparatively under-examined in service research. Addressing these gaps provides a basis for developing a more integrated understanding of the organisational conditions through which digital transformation may support or constrain subsequent value realisation.

1.5. Research Aim and Research Questions

The overarching aim of this thesis is to understand how intra-organisational conditions, including paradoxical tensions, internal misalignments, and AI-enabled coordination practices, shape resource integration and the conditions supporting value realisation during digital transformation initiatives in service organisations. Rather than treating digital transformation as a purely technological or customer-facing phenomenon, the thesis examines how these internal conditions influence the organisational capacity through which value may be realised over time. This aim is captured in the following thesis-level research question:

Overarching Research Question: How do multi-dimensional intra-organisational conditions shape value-realisation capacity during digital transformation in service organisations?

In addressing this question, the thesis examines how intra-organisational conditions shape actors' capacity to integrate resources and facilitate value realisation across interconnected service exchanges, while recognising that value remains contextually and phenomenologically determined by beneficiaries. The research is organised into two interrelated empirical studies informed by complementary theoretical perspectives. Study 1 examines how service organisations in traditional, highly regulated sectors navigate paradoxical tensions between stability and innovation. It focuses on organisational positioning along a tradition–innovation continuum and the DE mechanisms that make those positions workable in practice. Study 2 re-engages the shared empirical base to examine how persistent intra-organisational misalignments may progressively weaken value-realisation capacity and to explore the conditions under which AI-enabled systems may perform bridging operant functions within internal coordination.

The specific research questions are:

Research Question 1a (RQ1a): How do service organisations in highly regulated sectors navigate paradoxical tensions between stability and innovation during digital transformation?

Research Question 1b (RQ1b): What strategic approaches and DE mechanisms do they employ?

Research Question 2a (RQ2a): How do intra-organisational misalignments contribute to value attenuation in digital service coordination?

Research Question 2b (RQ2b): Under what conditions, and through what mechanisms, may AI-enabled systems support or constrain organisational responses to coordination breakdowns during digital transformation?

Together, the two studies address complementary facets of the overarching problem. Study 1 analyses how organisations position themselves along a tradition–innovation continuum and how strategic responses to paradoxical tensions shape the internal conditions under which digital transformation is pursued. Study 2 complements this by examining how organisational misalignment may progressively constrain resource integration and value-realisation capacity, alongside the socio-technical coordination practices through which actors seek to maintain or restore institutional coherence. Taken together, the studies provide a multi-dimensional perspective on how strategic positioning, internal organisational arrangements, and socio-

technical coordination shape the conditions supporting value realisation during digital transformation. The significance of this perspective is outlined in the following section.

1.6. Significance of the Research

Building on these research questions, the thesis contributes to marketing and service scholarship and to business practice by examining how the internal conditions of service organisations shape resource integration and the capacity to facilitate value realisation during digital transformation. Across marketing and service literature, there is a call for work that helps practitioners make sense of complex digital investment decisions in ways that connect to day-to-day realities rather than abstract prescriptions (Satwekar et al., 2024; Nambisan et al., 2019; Lemon & Verhoef, 2016). This thesis responds to that demand by bringing together digital transformation, SDL, paradox theory, organisational misalignment, and AI-enabled coordination to develop a more integrated understanding of the internal conditions shaping digital transformation in service organisations. Taken together, the two empirical studies position digital transformation not simply as a series of technology projects but as an evolving organisational process shaped by strategic positioning, institutional (mis)alignment, and socio-technical coordination.

Theoretically, the thesis foregrounds internal organisational conditions in explanations of digital transformation in service organisations. Rather than attributing outcomes primarily to technology choices, customer-facing design, or market-level factors, the analysis highlights how internal structures, performance measures, and cultural-interpretive arrangements shape the organisational conditions under which digital transformation is pursued (Hanelt et al., 2020; Warner & Wäger, 2018). Study 1 develops a tradition–innovation positioning continuum and associated DE mechanisms, providing an analytical account of how organisations in traditional, highly regulated service sectors navigate persistent tensions between operational stability and digital innovation. The continuum identifies different strategic approaches to these competing demands, while the DE mechanisms explain how organisations attempt to sustain or recalibrate their positioning as transformation unfolds. Together, these contributions extend understanding of how paradoxical tensions are navigated in digital transformation and how different strategic responses shape the internal organisational environment in which resource integration occurs (Hinings et al., 2018; Vial, 2019).

In terms of SDL and value research, the thesis contributes by examining how persistent intra-organisational misalignment may constrain resource integration across nested service exchanges and progressively weaken value-realisation capacity. Building on increasingly processual perspectives on value formation, Study 2 develops value attenuation as a mid-range process concept describing the progressive weakening of value-realisation capacity arising when persistent organisational misalignment constrains resource integration. Rather than positioning attenuation as an intermediate value state between value co-creation and co-destruction, the concept directs attention to deterioration in the organisational conditions through which subsequent value realisation is facilitated. The analysis identifies structural, metric, and cultural-interpretive forms of misalignment associated with this process, while recognising that internal organisational actors may themselves realise value as beneficiaries within particular service exchanges, but this does not determine the value subsequently realised by external beneficiaries. Study 2 further identifies socio-technical coherence practices through which organisational actors seek to sustain or recalibrate institutional coherence. These findings contribute an intra-organisational perspective on the everyday coordination practices through which institutional arrangements are enacted and resource integration is enabled or constrained, complementing SDL's broader explanation of value co-creation within service ecosystems (Leonardi, 2011; Spee & Jarzabkowski, 2017; Vink et al., 2020).

The research also contributes to emerging discussions about AI in service and marketing by examining how particular AI-enabled configurations may perform bridging operant functions within internal coordination rather than treating AI primarily as an automation tool or customer-facing interface (Huang & Rust, 2018; Wirtz et al., 2023). The findings suggest that capabilities such as information aggregation, pattern recognition, anomaly detection, prediction, and recommendation may support socio-technical coherence practices when configured with human expertise, organisational routines, shared data, and governance arrangements. However, these functions are contingent on the organisational conditions in which AI-enabled systems are embedded. Where existing institutional arrangements remain fragmented or performance measures reinforce competing priorities, AI-enabled systems may also reproduce or intensify coordination frictions. The thesis therefore positions AI not as an autonomous actor or inherently operant resource, but as a contingent component of socio-technical resource configurations that

may influence how organisational actors coordinate service work (Rahwan et al., 2019; Berente et al., 2021; Payne et al., 2021).

From a practical perspective, the findings offer insights for practitioners navigating digital transformation in service organisations. The typologies and frameworks developed in the empirical chapters provide analytical and diagnostic tools that may help stakeholders assess their positioning along the tradition–innovation continuum, recognise patterns of internal misalignment and emerging value attenuation, and identify coordination practices through which organisational coherence may be sustained or recalibrated over time. The thesis also encourages organisations to consider AI and related digital technologies not only as means of automation or customer-facing enhancement, but as resources whose potential contribution to internal coordination depends on their configuration with existing organisational practices and governance arrangements. For marketing and service leaders, the broader significance lies in recognising that internal organisational conditions, including structures, performance measures, culture, and digital resources, are not merely operational background factors but important conditions shaping resource integration and the organisational capacity to facilitate value realisation during digital transformation.

1.7. Definition of Key Terms

Digital Transformation

In this research, digital transformation refers to an ongoing, organisation-wide process of strategic change that reconfigures how value is created, delivered, and captured. It extends beyond individual IT projects to include changes in structures, processes, governance, culture, and measurement systems that collectively reshape how the organisation operates (Vial, 2019; Kraus et al., 2021).

Service Organisations and Service Ecosystems

Service organisations are configurations of actors that integrate resources to create and sustain service over time. They are embedded within broader networks of actors, technologies, and institutions in which actors participate in interconnected service exchanges and value is phenomenologically determined by beneficiaries within particular contexts (Vargo & Lusch, 2016; Akaka & Vargo, 2015).

Paradox and Paradoxical Tensions

Paradoxical tensions are persistent contradictions between competing demands, such as stability and innovation. Rather than being permanently resolved, paradoxes are enduring conditions that require continual management, particularly in organisations undergoing digital change (Bengtsson et al., 2016; Carmine et al., 2021).

Intra-Organisational Misalignment

Intra-organisational misalignment refers to systematic inconsistencies between what is intended or stated and what is enacted across organisational structures, processes, and practices. Misalignment disrupts coordination, pulls actors in conflicting directions, and constrains resource integration and the conditions supporting value realisation during digital transformation initiatives. The specific forms and patterns of misalignment are identified empirically in the studies that follow (Eggert et al., 2022).

Value Co-Creation and Value Co-Destruction

Value co-creation refers to processes through which multiple actors participate in service exchange and resource integration, while value remains uniquely and phenomenologically determined by the beneficiary within a particular context. Value co-destruction describes interactions or resource-integration processes through which the value experienced by one or more actors is diminished, including through resource misuse, misaligned expectations, or coordination failures. In this sense, value is interactional and context-dependent rather than embedded solely in products or technologies (Echeverri & Skålén, 2011; Alexander & Vallström, 2023).

Value Attenuation

Value attenuation refers to the process of progressive weakening in value-realisation capacity within an organisation. It occurs when persistent organisational misalignment constrains the effective integration of resources across nested service exchanges, progressively reducing actors' capacity to facilitate subsequent value realisation. Value attenuation therefore does not constitute a distinct value outcome situated between value co-creation and value co-destruction. Rather, it describes a deterioration in the organisational conditions and resource-integration capacity through which subsequent value realisation is enabled or constrained. Such attenuation may accumulate while service activities continue and before its consequences become clearly visible to customers or other beneficiaries.

Value-realisation capacity

Value-realisation capacity refers to an actor's or configuration of actors' capacity to integrate available resources in ways that enable value to be realised within a particular service exchange and/or facilitate its subsequent realisation in interconnected exchanges. In this thesis, the concept encompasses both internal service exchanges, in which organisational actors may themselves be beneficiaries, and the organisational capacity to facilitate subsequent value realisation for external beneficiaries. Value realised within one exchange does not determine value in another, as value remains phenomenologically determined by the beneficiary in each context.

Artificial Intelligence

Artificial intelligence (AI) refers in this thesis to data-driven computational systems capable of performing functions such as pattern recognition, prediction, classification, recommendation, and information processing that can influence organisational processes and decision-making. AI is considered not only in relation to automation or customer interaction, but also in terms of how AI-enabled systems may function within internal coordination. Particular attention is given to whether, and under what conditions, such configurations may perform bridging operant functions by structuring visibility, surfacing anomalies, and mediating information flows across organisational boundaries (Berente et al., 2021; Huang & Rust, 2018; Huang & Rust, 2020).

Institutional Arrangements and Institutional Coherence

Institutional arrangements govern interactions among actors and shape how resources are integrated within a service ecosystem. Institutional coherence refers to the extent to which these arrangements support coordinated action and stable expectations. Where rules, norms, and meanings conflict, institutional incoherence can create friction that constrains coordinated resource integration and may contribute to the progressive weakening of value-realisation capacity during digital transformation initiatives (Vargo et al., 2014; Pop et al., 2018; Leso et al., 2022).

Value

Consistent with SDL, value is understood in this thesis as uniquely and phenomenologically determined by a beneficiary within a particular context of use. Organisations and other actors can participate in service exchange, offer value propositions, and integrate resources in ways that facilitate or constrain value realisation, but they do not unilaterally determine the value

experienced by another beneficiary. Organisational actors may themselves be beneficiaries within internal service exchanges, meaning that internal and external episodes of value realisation are analytically distinguishable while remaining interconnected through nested resource-integration processes (Vargo & Lusch, 2016).

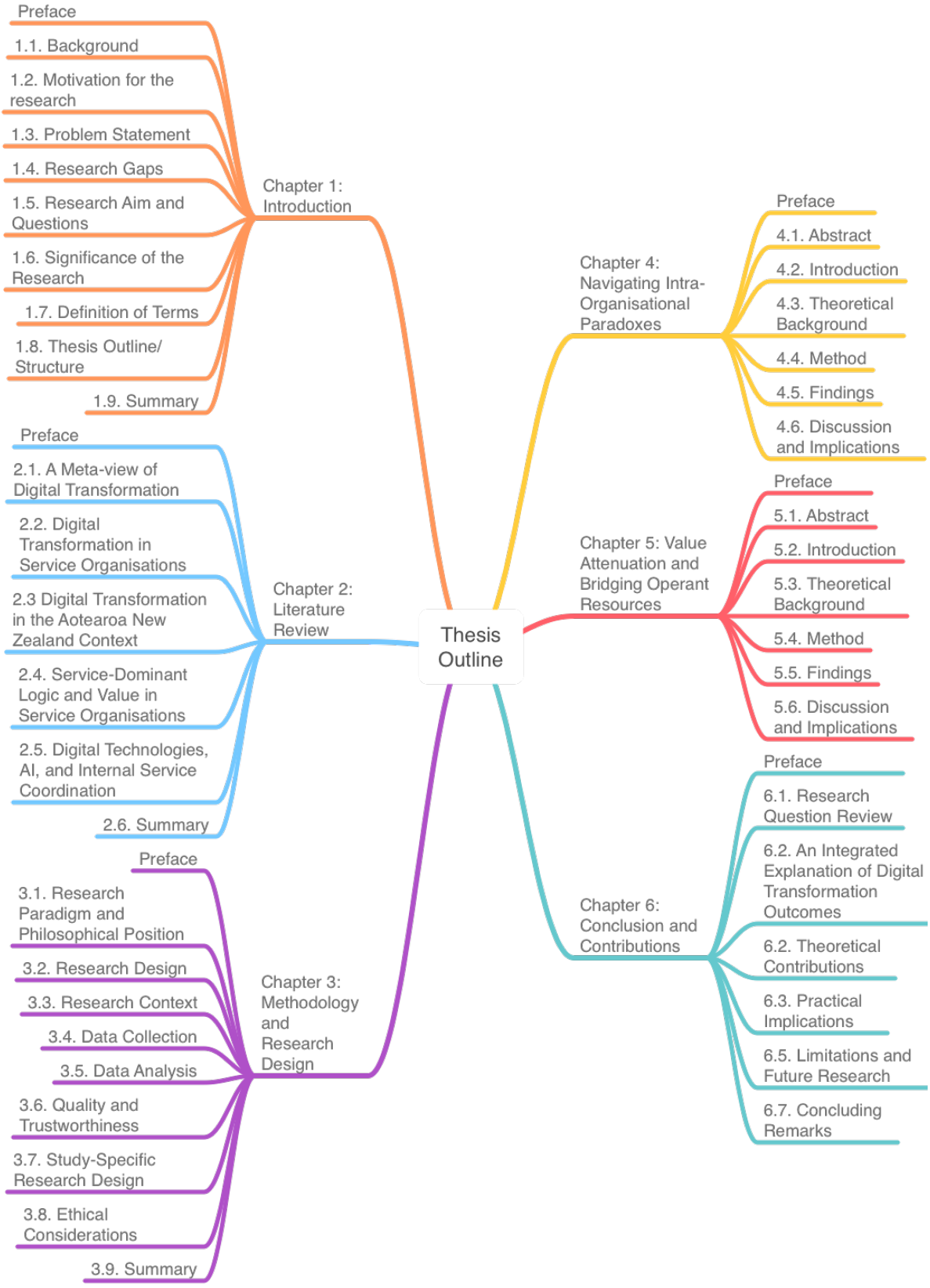
These definitions establish the conceptual terminology used throughout the thesis, providing a common foundation for the theoretical and empirical discussions that follow.

1.8. Thesis Outline/Structure

This thesis is organised into six chapters in line with the thesis-by-manuscript format. Chapter 1 introduces the thesis, the research background, and the overarching motivation for the study. It also outlines the problem the research addresses and defines the research questions. Chapter 2 reviews the relevant literature on digital transformation and sets out the theoretical foundations of the thesis. Chapter 3 outlines the research design, including the philosophical position, methodological choices, data collection, and analytical procedures used throughout the study.

Chapters 4 and 5 present the two manuscripts, each with its own background, analysis, findings, and discussion. Each manuscript chapter is preceded by a short preface that briefly describes the study's purpose and its relationship to the broader thesis. Chapter 6 synthesises the findings in relation to the overall research questions, explains the thesis contributions, and outlines its practical implications, limitations, and future research directions. Figure III illustrates the overall structure and flow of the thesis chapters.

Figure III: Overview of the thesis chapters



1.9. Summary

This chapter established the research problem, identified three interrelated gaps in the digital transformation literature, and presented the overarching research aim and questions. It positioned intra-organisational conditions as central to understanding how service organisations navigate competing transformation demands, coordinate resources, and sustain their capacity to facilitate value realisation. The chapter also outlined the theoretical and practical significance of the research and defined the key concepts used throughout the thesis.

Chapter 2 reviews the broader digital transformation literature, with particular attention to service organisations, SDL, internal resource integration, processual perspectives on value formation, and the role of digital technologies and AI in organisational coordination. This provides the theoretical foundation for the methodological approach developed in Chapter 3 and the theoretical perspectives addressed in the two empirical studies.

Chapter 2: Literature Review

Preface

This chapter develops the theoretical foundation for the thesis by positioning digital transformation in service organisations as an internally configured, service-oriented phenomenon. It extends the problem and motivation outlined in Chapter 1 by drawing together four streams of literature: digital transformation in service organisations; the Aotearoa New Zealand service context; SDL and value in service organisations; and emerging work on digital technologies and AI within internal coordination practices.

Rather than treating digital transformation primarily as a technology or customer-interface project, the chapter foregrounds the internal organisational conditions that shape resource integration and the conditions supporting value realisation. It first offers an integrative view of digital transformation, tracing how the concept has shifted from a narrow focus on digitisation and channel extensions towards a broader understanding of digital transformation as ongoing, organisation-wide change. The chapter then locates digital transformation within the Aotearoa New Zealand service context, where resource constraints, regulatory demands, legacy dependencies, and increasing technological expectations make internal tensions and coordination challenges particularly salient.

Building on this context, the chapter introduces SDL as the primary theoretical lens through which the value implications of these internal conditions are examined. Its emphasis on resource integration, beneficiary-determined value, service ecosystems, and institutional arrangements provides a basis for conceptualising service organisations as nested configurations of actors participating in interconnected service exchanges. This perspective allows internal actors to be recognised as beneficiaries within particular exchanges while maintaining an important distinction between value realised internally and value subsequently realised by external beneficiaries. The chapter then examines processual perspectives on value formation, including value co-destruction, resource misintegration, and diminution, to establish the conceptual foundations for investigating how persistent organisational misalignments may progressively constrain resource integration and the capacity to facilitate subsequent value realisation. These perspectives inform the abductive development of value attenuation in Chapter 5.

Finally, the chapter examines digital technologies and AI within internal service coordination. Rather than treating AI as an autonomous actor or inherently operant resource, the review

considers how AI-enabled systems become embedded within socio-technical configurations involving human expertise, organisational routines, data, and governance arrangements. This establishes the theoretical basis for subsequently examining whether particular AI-enabled configurations may perform bridging operant functions within internal coordination practices. Taken together, these literatures provide the conceptual foundation for investigating how paradoxical tensions, organisational misalignment, resource integration, value attenuation, and socio-technical coordination shape digital transformation in service organisations.

2.1. A Meta-view of Digital Transformation

Digital transformation has emerged as a central yet contested phenomenon across disciplines, with scholars variously emphasising technology adoption, business model innovation, and internal organisational change (Hanelt et al., 2020; Kraus et al., 2021). To understand these dimensions, it is necessary to consider not only external market and technological pressures but also the internal organisational conditions that enable or constrain how digital technologies are integrated into organisational processes and contribute to value realisation. A review of articles published over the past 15 years shows that, while only a small number of digital transformation articles appeared before 2010, annual publication counts have since risen sharply, reaching several thousand per year by the early 2020s, with most submissions concentrated in the last decade (see Figure IV). This rapid growth signals both the practical urgency of digital transformation and its increasing theoretical prominence. In line with this, recent scholarship tends to frame digital transformation as a long-term, organisation-wide process that reconfigures how value is created, delivered, and captured across service ecosystems, rather than as a series of isolated IT upgrades or channel extensions (Verhoef et al., 2021).

At the same time, digital transformation has not been conceptualised in a single, unified way. Topic-specific literature reviews identify multiple definitions and operationalisations, each tailored to the concerns of particular research communities (Gong & Ribière, 2021). Kraus et al. (2021), for example, distilled eight distinct explanations of digital transformation, illustrating how the concept has evolved. Some streams define digital transformation primarily as technology adoption or digitisation of existing processes (Bharadwaj et al., 2013). In contrast, others emphasise business model innovation, organisational restructuring, cultural change, or

combinations of these elements (Verhoef et al., 2021). Marketing and service research increasingly foreground customer experience (Lemon & Verhoef, 2016), service interfaces (Huang & Rust, 2020), and data-driven value propositions (Günther et al., 2022), while strategy work tends to stress competitive positioning and business model renewal (Teece, 2018), and Information Systems research focuses on platforms, architectures, and governance (Matt et al., 2019). Many authors explicitly describe this definitional fragmentation as a barrier to cumulative theorising and call for more integrative perspectives that recognise digital transformation as inherently multi-dimensional, spanning technology, processes, structures, culture, and value-creation logics (Verhoef et al., 2021; Plekhanov et al., 2022).

This definitional evolution is also visible in how the object of digital transformation is framed. Early contributions typically focused on digitising analogue processes, adding specific digital channels, or implementing major enterprise systems, often treated as bounded projects with clear start and end points (Vial, 2019). The emphasis in this phase was on moving from offline to online or from manual to automated within discrete organisational domains. More recent scholarship instead conceptualises digital transformation as a long-term, organisation-wide change process that reshapes how value is created, delivered, and captured across service ecosystems (Warner & Wäger, 2018). In this view, digital transformation involves rethinking roles and routines, reshaping organisational boundaries, and reconfiguring relationships among internal and external actors, rather than simply layering new technologies onto existing structures (Leso et al., 2022; Hanelt et al., 2020; Parida et al., 2019; Vial, 2019). Developments in technologies such as AI, the Internet of Things (IoT), cloud computing, and blockchain have reinforced this shift by enabling the transformation of end-to-end operations and coordination practices, not just isolated activities or customer touchpoints (Nambisan et al., 2019).

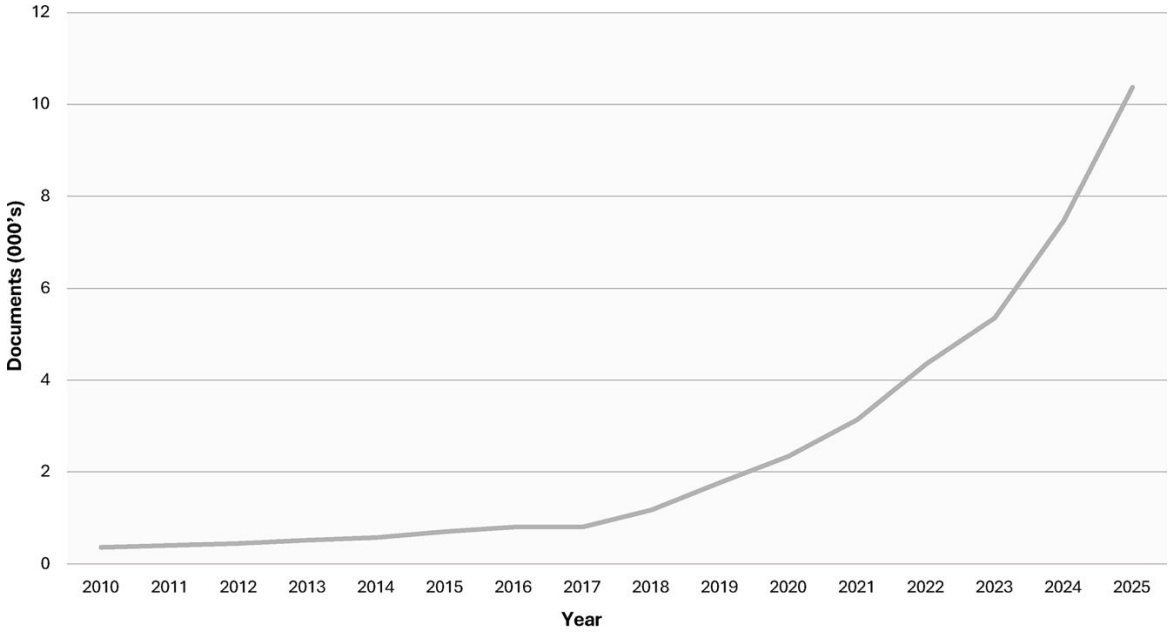
Concurrently, the rapid growth of digital transformation research has produced a conceptual landscape that is both rich and fragmented. Different strands emphasise different levels of analysis: some focus on micro-level work practices and employee experiences, others on meso-level organisational capabilities and structures, and still others on macro-level industry and ecosystem dynamics (Hanelt et al., 2020). For marketing and service research, this fragmentation raises important questions about how to connect technology-focused, customer-facing research with the internal organisational conditions that enable or constrain resource integration and subsequent value realisation. Recent papers increasingly argue that explanations

of digital transformation success and failure need to move beyond technology-centric or purely customer-centric views and pay closer attention to the internal arrangements, tensions, and coordination practices through which digital initiatives are enacted (Vargo et al., 2023; Berger-Remy et al., 2021; Payne et al., 2021; Rasool et al., 2020).

In comparing definitions of digital transformation across disciplines, substantial differences were found in what researchers treated as the object of change. Some emphasised technology adoption, others business model reconfiguration, and others focussed more on organisational culture. Rather than yielding a single, unified definition, the exercise highlighted two points that guide the present thesis. First, the proliferation of digital transformation definitions signals the perceived importance and complexity of the phenomenon rather than a simple lack of precision (Mergel et al., 2019). Second, continued attempts to settle on a single, universal definition may obscure how digital transformation initiatives are implemented in specific organisational contexts (Masoud & Garza, 2023). Building on this insight, the thesis narrows its focus from definitional consolidation to explaining how internal conditions in service organisations shape the value realised from digital transformation initiatives.

Collectively, these trends suggest that digital transformation remains highly relevant but has evolved from a primarily technical exercise in digitisation to a complex organisational phenomenon that spans micro-level work practices, meso-level organisational structures, and macro-level ecosystem relationships (Appio et al., 2021). This thesis responds to that evolution by examining digital transformation as a multi-dimensional, intra-organisational process in service organisations. In particular, it focuses on how internal conditions spanning paradoxical tensions, organisational misalignment, and AI-enabled coordination shape resource integration and the organisational capacity to facilitate value realisation during digital transformation, thereby contributing to ongoing efforts in marketing and service research to develop more holistic, practice-relevant understandings of digital transformation.

Figure IV: Growth of peer-reviewed publications on digital transformation



Source: Author's own review of articles published on Scopus for the keyword 'digital transformation'

2.2. Digital Transformation in Service Organisations

Building on the broader conceptualisation of digital transformation established in Section 2.1, this section examines its particular implications for service organisations. In these settings, digital transformation involves more than introducing new technologies or customer-facing channels. It also reshapes the organisational structures, capabilities, and coordination practices through which interconnected service processes are supported (Vial, 2019; Verhoef et al., 2021). This perspective is particularly relevant to service organisations, where value realisation depends on resource integration across multiple actors, functions, and service exchanges. Consequently, understanding digital transformation requires attention to the internal organisational conditions that enable or constrain coordination, alongside changes to customer experiences and service delivery.

This perspective helps inform the thesis' treatment of digital transformation as a multi-dimensional organisational change phenomenon and focuses on the internal conditions that shape resource integration and value realisation in service organisations. Across information systems, strategy, marketing, and service research, digital transformation has been examined through different emphases, including new digital business models and platforms, data-driven decision-making, and redesigned customer experiences and service processes. Despite this diversity, recent reviews converge on the view that digital transformation is a continuous, multi-

dimensional organisational change process that reshapes structures, capabilities, and value-creation paths over time, rather than a one-off technology implementation (Hanelt et al., 2020). This view aligns with the original thesis proposal's emphasis on a "multi-dimensional perspective" on digital transformation but redirects attention from defining digital transformation to explaining how internal organisational conditions shape the value realised from digital transformation initiatives in service settings.

For service organisations, digital transformation takes on certain characteristics. For instance, services are typically intangible and process-intensive, delivered through ongoing interactions between customers, employees, and technologies (Lusch & Nambisan, 2015). Service outcomes depend heavily on information flows, cross-functional coordination, and the integration of multiple resources over time (Vargo & Lusch, 2016). Consequently, digital transformation in service organisations frequently reshapes long, information-rich customer journeys and multi-actor coordination processes (e.g., insurance claims that span years and numerous internal touchpoints), alongside the internal systems and practices through which those journeys are supported (Payne et al., 2021; Parida et al., 2019). In the service context, digital initiatives such as self-service portals, automated back-office processes, and data-driven personalisation do not just add new touchpoints; they also reshape how work is organised, how information flows, and how different actors participate in value formation (Barrett et al., 2015; Hinings et al., 2018). As a result, digital transformation in service organisations often brings long-standing coordination challenges, legacy dependencies, and capability gaps to the surface in ways that may be less visible in more product-centric settings (Warner & Wäger, 2018).

These issues are especially pronounced in traditional, highly regulated sectors such as insurance, banking, and healthcare (Hinings et al., 2018; Loonam et al., 2018). Organisations in these sectors operate under strict regulatory oversight, manage significant risk exposures, and typically rely on long-standing legacy systems that underpin core operations and customer records. Product lifecycles can be lengthy, and operational reliability is paramount. Digital transformation initiatives, therefore, must balance pressures for innovation and agility with demands for compliance and stability (Eling & Lehmann, 2017). New digital channels or analytics capabilities are frequently layered on top of existing infrastructures, creating hybrid arrangements in which old and new technologies, processes, and logics coexist and sometimes clash (Svahn et al., 2017).

Early digital transformation research tended to foreground technology deployment and customer-facing change, focusing on topics spanning multi-channel strategies, digital customer journeys, and front-stage service innovations (Lemon & Verhoef, 2016). Over time, however, a growing body of literature has critiqued this technology and customer-centric lens, highlighting the importance of internal, multi-dimensional conditions for digital transformation outcomes (Nambisan et al., 2017). Research points to organisational culture, leadership, governance structures, legacy architectures, and capability development as central to whether digital initiatives translate into sustained performance improvements (Hanelt et al., 2020). Reflecting this shift, Warner and Wäger (2018) argue that digital transformation in established firms is fundamentally a process of internal alignment and organisational learning, particularly in service settings where multiple functions must collaborate to realise value.

This thesis builds on that shift by focusing explicitly on how internal organisational conditions shape the value realised from digital transformation in service organisations. Rather than treating digital transformation primarily as a matter of customer-interface design or technology rollout, it examines how internal tensions, misalignments, and socio-technical coordination practices influence resource integration and the conditions through which value may subsequently be realised across interconnected service exchanges.

2.3. Digital Transformation in the Aotearoa New Zealand Service Context

Digital transformation in Aotearoa New Zealand takes place within a distinctive economic landscape: a small, open, service-intensive economy dominated by firms operating at a modest scale. Unlike global multinationals with vast capital reserves, New Zealand service organisations face tight resource constraints, necessitating a focus on agility and incremental adaptation rather than "big bang" technological overhauls (New Zealand Productivity Commission, 2024; Rupeika Apoga & Petrovska, 2022). However, this necessity often manifests as ad hoc execution, with successive channel launches or siloed digital projects rather than coordinated, cross-functional organisational reconfiguration. Despite strong rhetorical emphasis on innovation, many organisations lack strategic integration across business functions, leading to persistent gaps in digital capabilities and investment (Kark et al., 2023; Kane et al., 2015). Survey evidence suggests

that many New Zealand organisations lack both a dedicated digital transformation budget and a clear strategy for developing digital talent (Yashiro et al., 2022).

These factors contribute to a widely noted "digital lag" among New Zealand service firms. Comparative benchmarking places the New Zealand market in a mid-tier position relative to other OECD economies, identifying under-investment in advanced digital technologies and data maturity, particularly among SMEs and service firms (Chinoracky et al., 2025; Benjamin et al., 2025). Organisations are digitally active but often underdeveloped in the capabilities needed to realise the full value of digital transformation. Government and industry bodies have responded by emphasising that effective digital transformation requires not only technology upgrades but also shifts in systems, processes, and workplace cultures (Downs & Retimanu, n.d.). However, existing research on these dynamics remains relatively fragmented. Simmonds (2022), for example, examines public-sector digital transformation through an ecosystem-governance perspective, while other studies emphasise Industry 4.0 readiness in manufacturing, leaving private-sector services comparatively under-explored. There is comparatively little empirically grounded work on the internal tensions and coordination processes inside private-sector service organisations in New Zealand, or on how internal service relationships, resource integration, and coordination practices shape digital transformation outcomes beyond the external, customer-facing dimension.

Recent industry insights add that AI is moving from peripheral experimentation to a "foundational layer" of insurance operations (Sønr, 2025). For example, the Sønr Beyond Boundaries report (2025) argues that modernising technology stacks, investing in talent, and up-skilling existing staff are now viewed as prerequisites for competitiveness rather than optional enhancements. Furthermore, the report highlights an execution gap: innovation conversations in sectors such as insurance are rich, but delivery is slow, and leadership teams increasingly demand measurable outcomes from digital transformation investments. The report also notes that New Zealand's SME-dominated market structure offers unusually direct access to senior decision-makers. This accessibility can enable rapid, organisation-wide coordination around digital initiatives, but it can also mean that fragmented or short-term decisions at the top quickly cascade across the whole organisation.

A similar pattern appears in neighbouring markets. The National Insurance Brokers Association reports that 83% of Australian brokers expect technology and automation to

significantly reshape insurance in the next decade, yet only 61% feel prepared for this change (Klipin & Cook, 2025). The report notes that much realised value has concentrated on underwriting and pricing, with claims now considered the function with the greatest untapped potential. Given the tight coupling between Australian and New Zealand insurance markets, these trends are directly relevant to the New Zealand context.

Within this landscape, New Zealand service organisations provide the empirical setting for this thesis. Service work in insurance, healthcare, and financial services is information-intensive and relationship-based, involving extended customer journeys that span multiple functions and systems. When such organisations pursue digital transformation amid resource constraints, legacy architectures, and strong regulatory conditions, internal tensions become particularly visible, and paradoxical pressures between stability and innovation surface as misaligned structures, conflicting metrics, and fragile coordination arrangements. Emerging AI tools are increasingly positioned as part of the "core infrastructure" needed to modernise these operations, yet many organisations remain uncertain about how to integrate AI into existing processes and governance without creating new risks or opaque decision pathways (Sønr, 2025; Klipin & Cook, 2025).

In this sense, the New Zealand service context encapsulates many of the internal challenges this thesis seeks to address. It combines strong external pressure to modernise, growing expectations that AI will underpin future competitiveness, and persistent gaps in digital capability, coordination, and measurement. These conditions provide an empirically rich setting in which to examine how paradoxical tensions, internal misalignment, and AI-enabled coordination shape resource integration and the conditions supporting value realisation during digital transformation.

2.4. Service-Dominant Logic and Value in Service Organisations

Service organisations in this context face the challenge of coordinating resource integration across fragmented departments and/or business units, entrenched legacy systems, and competing regulatory demands while simultaneously pursuing digital innovation. SDL provides the theoretical lens for examining how these organisational conditions shape opportunities for value realisation through its emphasis on resource integration, beneficiary-determined value, and institutional arrangements. However, SDL does not independently explain how intra-organisational coordination frictions emerge, persist, or are addressed during digital

transformation. Furthermore, while internal coordination and organisational performance indicators may provide insights into the conditions supporting value realisation, they do not necessarily establish value as experienced by beneficiaries within particular service exchanges. Accordingly, this thesis draws on SDL alongside complementary theoretical perspectives and empirical analysis to explain how strategic, organisational, and socio-technical conditions influence resource-integration capacity and subsequent opportunities for value realisation.

2.4.1. Core Principles of Service-Dominant Logic

SDL is a central lens in marketing and service research for explaining how value emerges through service exchange and resource integration. Developed as an alternative to goods-dominant views of exchange, SDL argues that actors apply resources for the benefit of themselves and others within interconnected service systems (Vargo & Lusch, 2016). Four aspects are particularly relevant to this thesis. These aspects draw particularly on SDL's foundational premises concerning service exchange, resource integration, value propositions, and beneficiary-determined value, together with its axioms concerning multi-actor value co-creation and the coordination of resource integration through institutional arrangements (Vargo & Lusch, 2016).

One is the idea that service is the fundamental basis of exchange: value is not embedded in products or technologies but is realised by beneficiaries through service exchange and resource integration within particular contexts (Vargo & Lusch, 2016; Vargo, 2009). For digital transformation in service organisations, this means that digital technologies matter because of how they support or disrupt interconnected service processes, relationships, and coordination across the organisation, rather than as isolated artefacts.

A second aspect is SDL's view of social and economic actors as resource integrators. Organisations, customers, employees, regulators, and other actors draw on and combine resources within particular service contexts (Lusch & Nambisan, 2015; Vargo & Lusch, 2016). Technologies form part of these resource configurations and can enable, constrain, or mediate how actors integrate resources. Service organisations can therefore be understood as configurations of internal and external actors whose capacity to integrate human expertise, information, technologies, routines, and other resources influences the conditions for value realisation. Digital transformation consequently reshapes patterns of resource integration across

departments, functions, teams, and technological infrastructures, not only at the customer interface.

A third element is SDL's conceptualisation of value as co-created by multiple actors but uniquely and phenomenologically determined by the beneficiary within a particular context of use (Hollebeek, 2016; Vargo, 2009). Organisations can therefore offer value propositions and participate in resource integration that facilitates value realisation, but they cannot unilaterally create or determine the value subsequently experienced by another beneficiary. Within SDL, value propositions represent invitations or opportunities for actors to participate in service exchange, rather than guarantees of value creation. Value-in-use refers to value realised and experienced by beneficiaries through the application and integration of resources within particular contexts. Consequently, organisational arrangements and digital capabilities may strengthen or constrain the resources available for subsequent exchanges without determining the value that beneficiaries ultimately experience. This distinction is important to the internal focus of this thesis. Organisational actors may themselves be beneficiaries within particular internal service exchanges and may realise value through the resources and services made available by other actors (Storbacka et al., 2016). However, value realised within an internal exchange does not determine value realised by an external customer or other beneficiary in a subsequent exchange. Internal and external episodes of value realisation are therefore analytically distinguishable while remaining interconnected through nested processes of resource integration.

SDL also foregrounds service ecosystems and institutional arrangements (Brodie et al., 2019). Service ecosystems are systems of resource-integrating actors connected by shared rules, norms, roles, and interpretive frames (Vargo & Lusch, 2017; Akaka et al., 2013). These arrangements shape which forms of resource integration are possible or legitimate. In digital transformation, internal metrics, governance structures, narratives about customer-centricity, and cultural norms form the institutional environment within which digital initiatives are interpreted and enacted (Lusch, Vargo, & O'Brien, 2007).

Taken together, these principles imply that service organisations can be understood as nested configurations of service exchanges embedded within wider ecosystems. An insurance firm, for example, operates as an actor within a broader service ecosystem while also comprising interconnected internal functions such as claims, underwriting, technology, and digital channels,

whose actors integrate resources under particular institutional arrangements (Eling & Lehmann, 2017). This nested perspective makes internal organisational conditions theoretically relevant because they shape actors' capacity to integrate resources within particular exchanges and to facilitate subsequent value realisation across interconnected service processes.

2.4.2. Internal Service Exchanges and Resource Integration

While SDL has often been applied to customer-facing and inter-organisational contexts, its resource-integration logic can also inform analysis of service exchanges occurring within organisations. Building on Gummesson's (2008) notion of "many-to-many marketing", organisational actors can be understood as participating in interconnected internal service exchanges under shared institutional arrangements (Gummesson, 2008; Brodie et al., 2019). Internal collaboration, knowledge sharing, and coordination constitute resource-integration processes through which organisational actors may themselves realise value as beneficiaries, while also shaping their capacity to facilitate subsequent value realisation in interconnected exchanges.

An internal SDL lens, therefore, highlights how internal actors function as resource integrators (Lusch, Vargo, & O'Brien, 2007). Frontline staff depend on IT systems, data flows, and cross-functional processes to serve customers; digital teams rely on input from operations and compliance; leaders depend on metrics and dashboards to make strategic decisions. Each interaction involves integrating skills, information, technologies, and institutional rules (Vargo & Lusch, 2016). When these integrations work effectively, internal service quality may improve, supporting the organisational conditions through which subsequent customer value can be realised (Storbacka et al., 2016). When these integrations become constrained, organisational actors may experience diminished value within the immediate exchange and/or reduced capacity to integrate resources effectively in subsequent exchanges (Alexander & Vallström, 2023). This perspective aligns with earlier work on internal marketing and internal market orientation, which recognises employees as internal beneficiaries of organisational service exchanges and suggests that the quality of those exchanges can influence subsequent external service performance (Lings & Greenley, 2004). SDL extends these ideas by situating internal service relationships within wider service ecosystems and institutional arrangements (Akaka & Vargo, 2015; Vargo & Lusch, 2016). Internal interactions around information, support, and coordination become sites where value can be co-created or undermined.

Building on the co-creation construct, SDL scholarship has examined value co-destruction, where interactions and resource integration lead to diminished or harmful value outcomes (Plé & Cáceres, 2010; Echeverri & Skålén, 2011). Typical mechanisms include resource misuse, misaligned expectations, lack of transparency, and conflict. Although most of this work focuses on firm-customer or inter-organisational relationships, similar mechanisms operate internally (Loonam et al., 2018). Misaligned KPIs between departments, poorly designed workflows, or opaque decision-making can generate frustration, delays, and rework that constrain resource integration and may diminish the value experienced by affected organisational actors. Many of these internal mechanisms are closely tied to misalignment. When structures, systems, metrics, and narratives pull different parts of the organisation in conflicting directions, internal actors struggle to coordinate the integration of resources effectively (Vargo & Lusch, 2016; Vial, 2019). For example, teams may be encouraged to pursue customer-centric innovation while being evaluated primarily on volume or cost. Likewise, digital teams may be tasked with rapid delivery while constrained by legacy architectures and risk-averse governance (Loonam et al., 2018; Warner & Wäger, 2018). These inconsistencies do not always produce dramatic breakdowns that clearly qualify as co-destruction, but they can accumulate into friction that progressively constrains the organisation's capacity for coordinated resource integration (Alexander & Vallström, 2023).

This internal SDL perspective is particularly relevant in digital transformation, where initiatives cut across organisational boundaries and require new patterns of collaboration and information sharing between historically siloed business units (Nambisan et al., 2017; Barrett et al., 2015). When organisational structures and institutional arrangements do not support effective resource integration, digital projects can unintentionally amplify internal tensions, create additional coordination burdens, or reconfigure work practices in ways that some actors experience negatively, even when customer-facing metrics appear favourable in the short term.

In this thesis, SDL is therefore used to interpret how intra-organisational conditions affect resource integration across interconnected service exchanges rather than to treat the organisation as a site in which value is produced before being transferred to customers. Internal actors may themselves be beneficiaries and experience value positively or negatively within particular exchanges, but these experiences remain distinct from value subsequently realised by external beneficiaries (Hanelt et al., 2020). The analytical significance of internal coordination lies

additionally in how it shapes actors' capacity to integrate resources effectively in subsequent exchanges (Payne et al., 2021). This distinction provides the basis for examining persistent organisational misalignment without assuming that internal organisational performance is itself equivalent to customer value (Hinings et al., 2018). It also directs attention towards how resource-integration capacity may progressively change during digital transformation, providing the transition to the processual value literature considered next.

2.4.3. Processual Perspectives on Value Formation and Value Attenuation

Existing value co-destruction research provides explanations of how resource misintegration and problematic interactions may contribute to diminished actor well-being, while also recognising responses such as coping and recovery (Plé & Cáceres, 2010; Laud et al., 2019). Related research on value diminution examines how interactions may reduce the value experienced by actors without necessarily constituting complete value destruction (Vafeas et al., 2016), while reductive value co-formation further challenges binary distinctions between value co-creation and co-destruction by recognising processes through which value formation may become less favourable to participating actors (Alexander & Vallström, 2023). These developments are particularly relevant to this thesis because they shift attention from categorising value outcomes towards understanding the processes through which actors' capacity to realise value may change over time.

Despite this increasingly processual understanding of value formation, less attention has been directed towards the cumulative intra-organisational processes through which persistent misalignment progressively constrains value-realisation capacity while service activity continues. This distinction is particularly important in digital transformation contexts. Digital initiatives may formally "go live", organisational processes may continue to operate, and customers may continue to receive service, while fragmented information, duplicated effort, conflicting metrics, incompatible priorities, and localised optimisation progressively constrain resource integration across the organisation (Leonardi, 2011; Barrett et al., 2015; Vink et al., 2020). Such conditions need not produce an immediate or clearly identifiable negative value outcome. Instead, they may progressively weaken the organisational capacity through which value can subsequently be facilitated and realised.

This thesis conceptualises this process as value attenuation: the progressive weakening of value-realisation capacity arising when persistent organisational misalignment constrains

resource integration across nested service exchanges. Value attenuation therefore does not represent an intermediate value state positioned between co-creation and co-destruction. Nor does it presume that negatively experienced value or value co-destruction has necessarily occurred. Instead, it directs analytical attention to deterioration in the conditions through which subsequent value realisation is facilitated. Its consequences may eventually contribute to diminished or negatively experienced value, but attenuation may also be interrupted, repaired, or partially compensated for before such outcomes arise.

SDL is particularly useful to this thesis because it allows the organisation to be understood not as a unitary actor, but as a nested configuration of resource-integrating actors participating in multiple service exchanges. Beneficiary status is not restricted to external customers as the participating actors may alternately provide and benefit from service depending on the exchange under consideration. Internal actors may therefore realise value as beneficiaries of services and resources provided by other organisational actors, while subsequently applying those resources within further service exchanges. Importantly, however, successful internal resource integration cannot be assumed to constitute value for an external beneficiary. Rather, the quality of interconnected internal resource-integration processes shapes the organisation's capacity to facilitate subsequent value realisation across the wider service journey. SDL therefore provides the theoretical architecture for understanding resource integration, beneficiary roles, and value formation across these nested exchanges. However, it provides less specificity regarding how persistent organisational misalignment may accumulate across such exchanges and progressively weaken the capacity for subsequent value realisation. It is this more specific intra-organisational process that value attenuation addresses.

Existing value co-destruction research provides important explanations of resource misintegration, diminished actor well-being, negative interactional outcomes, and processes of coping and recovery (Plé & Cáceres, 2010; Laud et al., 2019). Related work on value diminution and reductive value formation further demonstrates that value need not be understood as either wholly created or wholly destroyed (Vafeas et al., 2016; Alexander & Vallström, 2023). Value attenuation builds on these developments but addresses a different analytical problem. Its focus is not principally the positive or negative quality of a final value outcome, but the progressive deterioration of the organisational capacity through which resources can be coherently integrated for subsequent value realisation (Payne et al., 2021). Accordingly, value attenuation

should not be interpreted as a replacement for value co-destruction, nor as a claim that existing value research is inherently binary. It represents a mid-range process concept intended to explain how intra-organisational misalignment can progressively weaken value-realisation capacity during ongoing digital transformation.

These developments provide a basis for examining how persistent internal frictions and coordination constraints disrupt resource integration across nested service exchanges, potentially weakening the capacity for subsequent value realisation (Laud et al., 2019; Vink et al., 2020). Taken together, these processual perspectives provide the theoretical basis for examining how persistent organisational misalignment may progressively constrain resource integration across nested service exchanges. Chapter 5 develops value attenuation from this foundation and examines its relationship with organisational misalignment, institutional coherence, and socio-technical coordination during digital transformation initiatives.

2.5. Digital Technologies, AI, and Internal Service Coordination

Digital technologies are central to digital transformation, but their role in service organisations extends beyond enabling new customer interfaces or automating isolated tasks. From an SDL perspective, digital systems are part of the resource configurations and institutional arrangements through which actors coordinate service work and realise value. In the context of this research, AI is of particular interest because AI-enabled systems may extend beyond executing predefined routines to filter information, identify patterns, surface anomalies, and generate recommendations that shape how organisational actors perceive and respond to issues. Recent research on AI in services has focused on external, customer-facing applications (Huang & Rust, 2018; Rust, 2019; Wirtz et al., 2023). By contrast, this thesis examines how AI-enabled systems function within internal coordination and institutional arrangements, particularly where persistent organisational misalignment constrains resource integration.

The following sections, therefore, review two relevant streams: AI in service research, with an emphasis on customer-facing applications, and AI in organisational and operational contexts, where AI is increasingly embedded in internal decision-making and coordination processes.

2.5.1. AI in Service Research

AI has become a prominent topic in service and marketing research, particularly in relation to customer-facing applications. Huang and Rust (2018), for example, classify AI along mechanical, thinking, and feeling dimensions and link these to different service roles, arguing that AI will progressively transform frontline service encounters. Subsequent service research has emphasised AI applications, such as personalised recommendations, chatbots, and automated customer support, as mechanisms for enhancing the customer experience (Rust, 2019; Wirtz et al., 2023). Across these studies, a consistent pattern emerges: the focus remains fixed on the external customer interface, with internal coordination treated as a supporting infrastructure rather than as a focal phenomenon requiring its own analysis.

From a service systems perspective, Wirtz et al. (2023) provide a comprehensive review of AI in service ecosystems, mapping AI roles across frontline interactions, support processes, and strategic decision-making. They highlight AI's potential to improve efficiency, responsiveness, and service innovation, but the primary emphasis remains on external encounters and customer-facing outcomes. Similarly, Noble et al. (2023) examine how AI-enabled tools reshape service work, showing how frontline and support staff adjust to AI-based recommendations and automation. Their findings illustrate that AI reconfigures tasks, skills, and customer interactions, even as the analysis remains anchored in the service encounter.

This literature recognises that AI functions not only as a back-end technology but can become embedded within service delivery processes. However, several limitations are apparent. First, the predominant focus is on value creation and realisation at or near the customer interface, with internal organisational dynamics treated as background context rather than as a primary level of analysis (Wirtz et al., 2023). In much AI-in-service research, the key outcomes are customer satisfaction, perceived service quality, loyalty, or experience metrics, and AI is examined in terms of how it improves response times, personalisation, or interaction quality (Huang & Rust, 2018; Rust, 2019; Wirtz et al., 2023). Internal structures, routines, and coordination mechanisms typically appear only as supporting conditions (e.g., "organisational readiness" or "implementation capability"), rather than as phenomena to be analysed. As a result, there is a growing body of knowledge about how AI shapes service encounters, but comparatively less attention to how AI-enabled systems participate in the internal coordination

and institutional arrangements that influence resource integration and the organisational conditions supporting subsequent value realisation (Larivière et al., 2017).

Second, while these papers acknowledge that AI can change work practices (Noble et al., 2023), they typically examine discrete use cases (e.g., chatbots, recommendation systems) rather than the cumulative effects of AI on internal coordination across departments, systems, and time (Huang & Rust, 2020). Third, although some studies note that AI can introduce new frictions or unintended consequences (Huang & Rust, 2020; Larivière et al., 2017), they provide less explanation of how AI-enabled systems interact with persistent organisational misalignments in ways that may either constrain or support resource integration over time.

These limitations reinforce the value of extending AI-in-service research beyond external encounters to consider how AI-enabled systems participate in internal coordination and resource integration, particularly in relation to organisational misalignment and institutional coherence.

2.5.2. AI in Organisational and Operational Contexts

Beyond customer-facing applications, a growing body of research examines AI within organisational and operational contexts. For example, Rai et al. (2019) conceptualise AI and advanced analytics as platform-level capabilities that enhance organisational sensing, prediction, and decision-making. This positions AI as a strategic asset rather than just an automation tool. From an SDL perspective, Payne et al. (2021) argue that technologies can function as operant resources in service ecosystems, shaping how actors integrate resources and co-create value. Together, these contributions provide a basis for examining how AI-enabled systems may perform functions that influence coordination and resource integration rather than operating solely as passive back-end infrastructure.

Organisational studies show how AI becomes embedded in everyday work routines. Faraj et al. (2018) examine how professionals collaborate with AI systems and demonstrate that coordination, accountability, and expertise are reconfigured when AI becomes part of socio-technical routines. Jarrahi (2018) similarly conceptualises human–AI collaboration as an arrangement in which AI systems undertake pattern recognition and prediction, while humans provide contextual judgement and sensemaking. Berente et al. (2021) emphasise that AI should be understood as part of organisational routines rather than as stand-alone tools, highlighting how AI can both stabilise and destabilise coordination by changing what information is visible,

how tasks are sequenced, and where decisions are taken. Collectively, these studies describe how AI shapes internal information flows, visibility, and control, and how it can redistribute decision authority and reconfigure how organisational actors coordinate their work. In other words, this literature provides important foundations for viewing AI as part of the organisational fabric rather than a peripheral tool.

However, there is a partial difference in emphasis. Much of the existing work examines AI in general organisational contexts, with less attention to the specific characteristics of service organisations where value depends on long, information-intensive processes and cross-functional coordination. These studies also provide less explanation of how AI-enabled systems interact with persistent misalignments across organisational structures, measures, and interpretive arrangements, or how their use may support or further constrain coordination across interconnected service processes. This leaves scope to examine the functions AI-enabled systems may perform within internal resource integration and how those functions depend on the socio-technical conditions in which the technology is configured and used.

This thesis aligns with socio-material perspectives that view digital technologies as materially embedded in organisational practices rather than as neutral tools that simply 'support' pre-existing work (Orlikowski, 2007; Leonardi, 2011). From this vantage point, AI systems are treated as socio-technical arrangements that shape what actors can see, prioritise, and coordinate, without being granted independent intentionality or agency in the same sense as human actors. This provides a basis for examining AI-enabled systems as resources whose functions emerge through their configuration with human expertise, organisational routines, shared data, and governance arrangements. Rather than classifying AI as inherently operant or treating it as an autonomous actor, the thesis therefore examines whether and under what conditions particular AI-enabled configurations may perform operant functions by acting on other resources and influencing coordination. This provides the theoretical foundation for the subsequent empirical examination of AI's potential bridging role within socio-technical coordination practices in Chapter 5.

2.6. Summary

This chapter positioned digital transformation as a multi-dimensional organisational phenomenon directly relevant to marketing and service research, especially in service-intensive

and highly regulated contexts. It demonstrated that digital transformation goes beyond technology deployment and customer-facing changes to include internal structures, capabilities, and institutional arrangements that shape resource integration and the conditions supporting value realisation over time.

The chapter then established SDL as the primary theoretical lens for the thesis, using it to conceptualise service organisations as nested configurations of resource-integrating actors participating in interconnected service exchanges. From this perspective, internal actors, technological resources, and institutional arrangements become important for understanding how resource integration is enabled or constrained during digital transformation and how this may condition subsequent value realisation. Value remains phenomenologically determined by the beneficiary within each exchange, meaning that internal value realisation is analytically distinct from, although interconnected with, value subsequently realised by external beneficiaries.

The review also examined increasingly processual accounts of value formation, including research on value co-destruction, resource misintegration, diminution, and reductive value co-formation. These perspectives provide important explanations of how resource integration may be disrupted and value formation adversely affected. However, they leave scope for further examination of how persistent intra-organisational misalignments may progressively constrain the capacity to facilitate value realisation across interconnected service exchanges. This provides a theoretical foundation for the abductive development of value attenuation in Chapter 5, without presupposing either an intermediate value state between co-creation and co-destruction or a particular value outcome for beneficiaries.

Lastly, the chapter examined AI across service and organisational research, identifying comparatively less attention to its role in internal coordination and resource integration. Socio-material and SDL perspectives provide a basis for examining how AI-enabled systems interact with human expertise, organisational routines, data, and governance, and whether particular configurations may perform bridging operant functions within socio-technical coordination practices. Collectively, these threads underpin the theoretical basis for the methodological approach outlined in Chapter 3.

Chapter 3: Methodology and Research Design

Preface

This chapter outlines the methodological foundations of the thesis. It explains how the research design supports the overarching aim of understanding how internal organisational conditions shape resource integration and value-realisation capacity during digital transformation in service organisations. It begins by outlining the philosophical assumptions that underpin the study, including its critical realist ontology, interpretive epistemology, and abductive logic of inquiry. It then presents the overall qualitative, multi-study research design, including the case-study logic, the empirical context, and the phased data-collection strategy.

Subsequent sections explain how the study gathered and analysed secondary data and interview material and outline the steps taken to ensure quality, trustworthiness, and reflexivity throughout the analytic process. This chapter explains how each manuscript applies the shared research design within the thesis-by-publication format and outlines the ethical considerations that governed the research. Together, these elements demonstrate that the methodological choices align with the research questions and the focus on internal organisational conditions, resource integration, and value-realisation capacity during digital transformation.

3.1. Research Paradigm and Philosophical Position

The research is grounded in a critical realist ontology, an interpretive epistemology, and an abductive logic of inquiry (Wynn & Williams, 2012). A critical realist ontology is appropriate as the organisational conditions examined in this thesis, including structures, institutional arrangements, coordination practices, and persistent tensions, are treated as real and consequential even though their operation may not always be directly observable. Their effects may instead become visible through organisational practices, actor experiences, and recurring patterns of coordination and resource integration. At the same time, an interpretive epistemology recognises that knowledge of these conditions is necessarily situated and mediated through participants' experiences and interpretations. The combination is therefore intentional: organisational structures and processes are treated as consequential features of organisational life, while knowledge of how they operate is developed through interpretation of how practitioners experience, describe, and enact them in particular contexts (McEvoy & Richards, 2006; Mercier et al., 2023).

Within this philosophical position, abduction provides a compatible logic of inquiry because it enables movement between empirical observations and theoretical explanation rather than requiring either hypothesis testing or purely inductive theory development. The analysis began by remaining relatively close to participants' accounts before recurring patterns and theoretically interesting observations prompted engagement with relevant explanatory concepts. Existing theory was therefore used as an interpretive resource through which emerging empirical patterns could be compared, questioned, and progressively refined, while theoretical interpretations were returned to the data to assess their explanatory fit. This iterative movement between empirical material and theoretical explanation is consistent with abductive approaches to qualitative research and with the critical realist objective of developing plausible explanations for patterns that may reflect underlying organisational conditions or mechanisms.

The philosophical position also places appropriate limits on the claims made in the thesis. Participants' accounts are not treated as direct or exhaustive representations of an objective organisational reality, nor are the theoretical concepts developed from them presented as universally invariant causal mechanisms. Rather, the research interprets recurring patterns across practitioner accounts and organisational contexts to develop theoretically informed explanations of how strategic, organisational, and socio-technical conditions may shape resource integration during digital transformation. In Manuscript 1, this involves explaining how organisations navigate persistent tensions between stability and innovation. In Manuscript 2, it involves explaining how persistent organisational misalignments may progressively constrain resource integration and weaken value-realisation capacity, and how socio-technical resources and practices may condition these processes. These explanations remain open to refinement across different organisational and institutional contexts.

3.2. Research Design

This thesis adopts a qualitative, multi-study research design based on a shared empirical programme of semi-structured interviews and contextual secondary material. The design was developed to investigate digital transformation from multiple analytical dimensions while allowing the two manuscripts to pursue distinct research questions and theoretical explanations. Rather than treating the thesis as a single empirical study divided into two outputs, the research

programme provides a common empirical foundation from which the two studies developed different analytical emphases.

The research design evolved alongside the abductive development of the thesis. The initial empirical inquiry focused broadly on the organisational conditions associated with digital transformation in service settings. The first phase of interviewing concentrated on practitioners working within or closely with the New Zealand insurance sector, providing the empirical basis for Manuscript 1's examination of stability–innovation tensions in a traditional, highly regulated service context. As the research progressed, additional participants from other service sectors broadened the empirical base and enabled recurring organisational and coordination patterns to be examined beyond insurance. Manuscript 2 subsequently re-engaged this broader dataset to examine intra-organisational misalignment, resource integration, value attenuation, and the role of AI-enabled systems in service coordination.

This design therefore combines a shared empirical programme with study-specific analytical boundaries. Manuscript 1 employs a bounded case logic centred on the New Zealand insurance sector, whereas Manuscript 2 draws on the broader cross-sector practitioner dataset to develop an analytically generalisable explanation of organisational coordination in service organisations. The two studies are connected through their empirical origins and overarching concern with intra-organisational conditions in digital transformation, but they do not constitute identical empirical cases or analytical units. Sections 3.2.1–3.2.4 explain this design in greater detail.

3.2.1. Multi-Study, Thesis-by-Publication Design

The thesis follows a thesis-by-publication format in which the two empirical manuscripts draw on a shared research programme while addressing distinct research questions and theoretical concerns. This structure enables different dimensions of digital transformation to be examined using the same broader empirical foundation without assuming that the two studies constitute a single analytical model.

Study 1 (Chapter 4) examines how organisations in a traditional, highly regulated service sector navigate persistent tensions between stability and innovation during digital transformation. Drawing principally on participants working within or closely with the New Zealand insurance sector, it develops two related typologies: strategic positions along a tradition–

innovation continuum and DE mechanisms through which organisations manage competing demands for stability and innovation.

Study 2 (Chapter 5) re-engages the broader interview dataset to examine how persistent intra-organisational misalignments constrain resource integration and progressively weaken value-realisation capacity. It develops value attenuation as a mid-range process concept and identifies recurrent socio-technical coherence practices through which organisational actors respond to coordination frictions. It also examines the contingent role of AI-enabled systems, which may perform bridging operant functions within these practices depending on their configuration, governance, and integration with human and organisational resources.

Together, these studies provide complementary but analytically distinct explanations. Manuscript 1 foregrounds strategic responses to persistent paradoxical tensions, while Manuscript 2 foregrounds organisational and socio-technical conditions affecting resource integration. Their integration occurs at the thesis level in Chapter 6 rather than through treating one study as a sequential test or extension of the other.

3.2.2. Case Study Logic

This research adopts a qualitative, multi-study research programme focused on digital transformation in a traditional, highly regulated service context. The sectorally bounded case logic applies most directly to Manuscript 1 rather than to the thesis as a whole. Manuscript 1 examines digital transformation within the New Zealand insurance sector as a theoretically informative service context characterised by regulatory demands, established institutional arrangements, long-lived technological infrastructures, and persistent pressures for digital innovation. Participants working within insurance organisations or closely with the sector provided multiple organisational and professional perspectives on these shared contextual conditions. The purpose of this sectoral case was not statistical representation of the insurance industry, but analytical examination of how organisations navigate persistent stability–innovation tensions within a bounded institutional setting.

Manuscript 2 uses a broader empirical scope. It draws on participants from multiple service sectors to examine recurring patterns of intra-organisational misalignment and coordination across different organisational contexts. Accordingly, Manuscript 2 is not treated as an embedded sub-case of the insurance setting. The broader sample provides comparative variation through which recurring organisational patterns could be examined across service-

intensive contexts while retaining attention to the contextual differences described by participants.

The thesis is therefore best characterised as a qualitative multi-study research programme with a sectorally bounded case study in Manuscript 1 and a broader cross-sector qualitative study in Manuscript 2. This distinction clarifies the empirical boundaries of each study and avoids implying that all participating organisations constitute embedded units within a single organisational or sectoral case. Consistent with the abductive purpose of the research, both studies seek analytical rather than statistical generalisation, using empirically grounded patterns to develop theoretically informative explanations that may be examined in comparable service contexts.

3.2.3. Data Sources and Phases

The research programme developed through two related phases. Phase 1 involved engagement with secondary materials to develop contextual understanding of digital transformation in service organisations and, particularly, the New Zealand insurance setting. Materials included industry and regulatory reports, organisational publications, professional and industry commentary, and other sources relevant to digital transformation, legacy systems, regulation, innovation, and customer centricity. These materials were not treated as a separately coded dataset from which the principal theoretical findings were generated. Rather, they provided contextual and sensitising knowledge, informed development of the interview protocol, and were subsequently revisited to contextualise and compare emerging interview interpretations.

Phase 2 comprised semi-structured interviews with practitioners involved in digital transformation across service organisations. Participants occupied roles spanning digital and technology leadership, strategy, product, operations, transformation, customer experience, and related cross-functional responsibilities. The interviews explored practitioners' experiences of digital transformation, including organisational constraints, decision making, legacy systems, performance measurement, coordination, customer centricity, data, and emerging digital technologies. The semi-structured format enabled participants to introduce issues that were significant within their own experience, including topics that had not been specified as initial theoretical categories.

Data collection and analysis were overlapping rather than completely sequential. Interviews were progressively transcribed, reviewed, and coded while data collection continued, enabling recurring empirical issues to inform subsequent questioning and analytical attention. This iterative relationship between data collection and analysis subsequently supported the abductive process described in Section 3.5. Further details of secondary-source selection, interview procedures, sampling, and participant characteristics are provided in Section 3.4.

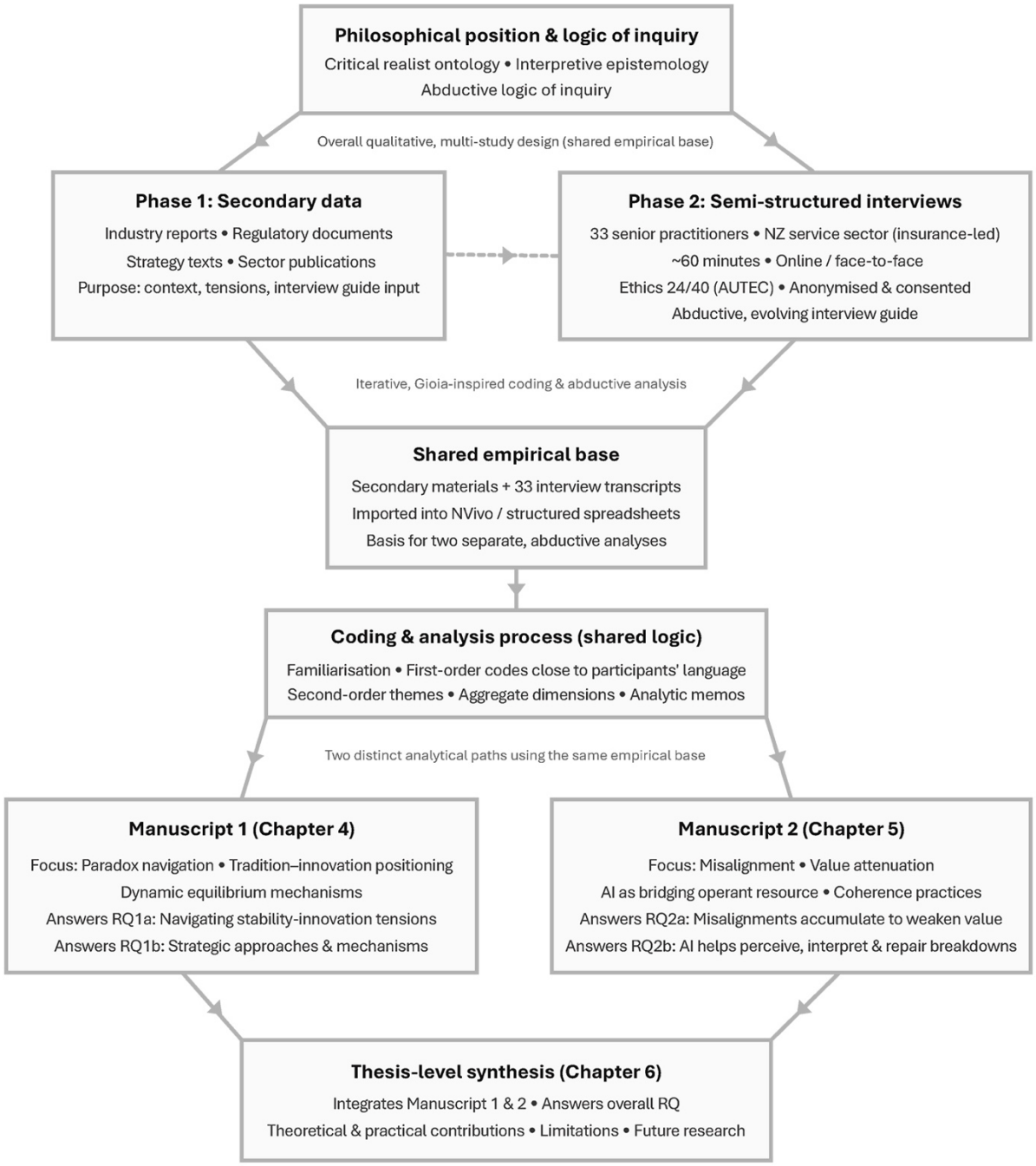
3.2.4. Integrated Research Programme

Collectively, the philosophical commitments (Section 3.1), case-study logic, and phased data collection form an integrated research programme that supports abductive, theory-building analysis. The shared empirical base allows the thesis to maintain coherence across the two studies while enabling each to address distinct facets of the overarching research question.

Study 1 examines strategic responses to persistent stability–innovation tensions within the New Zealand insurance context. Manuscript 2 draws on the broader service-sector dataset to examine how organisational misalignments constrain resource integration and value-realisation capacity and how actors mobilise socio-technical resources in response. The relationship between the studies is therefore complementary rather than sequential: each explains a different analytical dimension of digital transformation, while Chapter 6 integrates their findings at the thesis level.

Figure V provides a visual overview of the research programme, including the contextual phase, interview programme, shared empirical foundation, and subsequent analytical paths leading to the two manuscripts. The following sections provide further detail on the research context (Section 3.3), data collection (Section 3.4), analytical process (Section 3.5), and study-specific research designs (Section 3.7).

Figure V: Visual overview of the methodology



Source: Author's own

3.3. Research Context

The empirical research was conducted primarily within service-intensive organisations in Aotearoa New Zealand, with the New Zealand insurance sector providing the principal contextual setting for Manuscript 1 and a broader range of service organisations informing Manuscript 2. Service organisations provide an appropriate context for examining digital transformation because service delivery frequently depends on the coordination and integration of resources

across multiple organisational functions, technologies, and professional roles. Much of this activity occurs internally and may not be directly visible to external customers, making the organisational conditions supporting resource integration particularly relevant to the research questions addressed in this thesis.

The New Zealand insurance sector provided a theoretically informative setting for examining the stability–innovation tensions investigated in Manuscript 1. Organisations within the sector operate under substantial regulatory and risk-management requirements while also managing long-lived core legacy systems, established operating practices, and increasing expectations for digital service delivery. These conditions create persistent demands for organisational reliability and continuity alongside pressures for technological and service innovation. The sector therefore provided a context in which tensions between established organisational foundations and digital change were particularly visible, enabling comparison of how organisations and practitioners responded to similar institutional and technological pressures.

The broader empirical programme subsequently included practitioners from other service-intensive organisational settings. These participants introduced variation in industry context, organisational structure, regulatory exposure, technological infrastructure, and transformation experience while also describing recurring issues associated with cross-functional coordination, competing priorities, performance measurement, legacy arrangements, and digital technologies. This broader empirical base supported Manuscript 2's focus on patterns of intra-organisational misalignment, resource integration, and socio-technical coordination across service organisations rather than restricting its analytical claims to insurance.

The research context should therefore not be interpreted as a statistically representative sample of either the New Zealand service economy or the industries represented by participants. Its purpose is analytical. The insurance setting provides a bounded institutional context for examining paradoxical tensions in Manuscript 1, while the broader service-sector sample provides contextual variation through which recurring organisational patterns could be compared in Manuscript 2. Detailed information on participant selection, organisational and industry representation, and the nature of the digital transformation activities discussed by participants is provided in Section 3.4.

3.4. Data Collection

Data collection was comprised of two related phases. Phase 1 involved the analysis of secondary materials used primarily to develop a contextual understanding of digital transformation in service organisations. Phase 1 was also designed to inform the interview guide questions to ensure contemporary topics were covered for a rapidly evolving subject. Phase 2 comprised semi-structured interviews, which provided the principal empirical material for the two studies. Consistent with the abductive design, data collection and analysis were not treated as entirely discrete stages; early interview material was reviewed as data collection progressed, allowing recurring and unexpected issues to be explored in subsequent interviews. The following sections describe the two data sources and the sampling strategy in greater detail.

3.4.1. Secondary Data

The first phase of the research used secondary data to build a clear picture of the context for the interview study, involving the collection and analysis of materials on digital transformation and related digital trends. The set of resources included industry and market reports, data summaries, news and magazine articles, media releases, leadership forum summaries, conference material, and web content from industry publications. These sources were drawn from professional associations, government agencies, industry media, company websites, and practitioner forums.

Secondary source selection followed a targeted search process where sources were collected through general web searches using keywords related to digital transformation and service organisations (e.g., "digital transformation" AND "insurance", "legacy systems" AND "regulation", "AI automation" AND "customer centricity" AND "service"). These materials were complemented by resources from digital transformation topic-specific reports (e.g., McKinsey, Accenture, Deloitte), industry conference summaries and materials (e.g., Sønr report), industry-specific print media (e.g., CoverNote insurance industry magazine), regulatory authority reports (e.g., FMA Report), and government digital publication (e.g., Ministry of Business, Innovation & Employment). The secondary materials were then screened against two main criteria. First, sources were required to address issues directly relevant to digital transformation-related topics in service organisations. Initial searches focused on digital transformation, legacy systems, regulation, innovation and customer centricity. As analysis progressed, further targeted searches were undertaken around issues emerging from the interviews, including organisational

misalignment and AI-enabled coordination. Second, they needed to reflect the institutional context in which the empirical work was conducted, for example, by outlining regulatory expectations, market structure, dominant strategic narratives, or sector-level responses to digital pressures. Where multiple sources covered similar ground, preference was given to those that were more recent, more detailed, or particularly influential relative to digital transformation.

In this thesis, secondary materials were not formally coded as a separate dataset from which the principal themes or theoretical constructs were generated. Instead, they were read and annotated iteratively to provide contextual and sensitising knowledge for the interview study (see Appendix 2: Secondary Data). Early engagement with industry reports, regulatory publications, strategy documents, and practitioner commentary helped identify contemporary issues surrounding digital transformation, including legacy infrastructure, regulation, risk, innovation, and customer centricity, and informed development of the interview guide. As interview analysis progressed, relevant materials were revisited to contextualise participants' accounts and compare emerging interpretations with wider sector and organisational narratives. Secondary materials therefore supported contextual understanding, interview development, and interpretive triangulation rather than constituting an independently coded empirical dataset.

3.4.2. Semi-Structured Interviews

Semi-structured interviews formed the second phase of data collection. Interviews were chosen as the primary method because they provide access to the practitioners' situated interpretations of digital transformation, internal tensions, and coordination practices that are difficult to capture through surveys or formal documents alone. As described in Section 3.4.3, the 33 participants held strategic, planning, implementation, and operational roles, providing a range of perspectives on digital transformation across multiple organisations and industry contexts. The participants represented organisational contexts including insurance and other financial services, InsurTech, data and technology services, consulting, fast-moving consumer goods (FMCG), education, healthcare, and government.

The majority of interviews were conducted primarily through Microsoft Teams, with three interviews conducted face-to-face. Conversations generally lasted between 60 and 100 minutes depending on whether the participants had time and wished to elaborate further on any given topic. Before each interview, participants received an information sheet describing the study's purpose, an overview of the discussion topics, and the voluntary nature of participation (see

Appendix 3: Information Sheet for Participant). With participants' consent, interviews were audio-recorded and transcribed verbatim, with transcripts subsequently checked against the recordings before analysis. Consent was obtained in writing or via recorded agreement at the start of each interview (see Appendix 4: Participant Consent Form). Confidentiality was emphasised, and organisational and individual identifiers were removed or masked during transcription and analysis (see Section 3.8 for full ethical provisions).

The interview guide (see Appendix 5: Interview Guide) was first developed from the initial literature review and contextual understanding developed during Phase 1. It used broad, open-ended questions concerning participants' roles and responsibilities, their experience with digital transformation initiatives, legacy and digital systems, decision making, organisational changes, measurement, data and analytics, customer centricity, and the challenges associated with digital change. However, the interview guide was not treated as a fixed or exhaustive set of questions. As interviews progressed, recurring or unexpected issues were explored through additional probes and follow-up questions. This was particularly important for topics that subsequently became theoretically significant but had not been specified as initial analytical categories. The topic of AI provides a clear example of this. It was not established as a primary theoretical category in the original interview design; rather, participants began discussing AI and related technologies in connection with data, automation, decision making, and emerging digital practices. Where participants raised these issues, subsequent questioning explored their experiences and interpretations in greater depth. AI therefore entered the analysis through practitioner accounts before its role in organisational coordination was developed theoretically.

3.4.3. Research Sampling and Participant Selection

Participants were eligible where they had substantial professional experience in digital transformation and direct involvement in, responsibility for, or cross-functional visibility of digital change within service organisations. Initial invitations were sent to experienced practitioners within the researcher's professional network, who suggested additional potential participants with relevant expertise. These senior roles were important because they required actors to span functional boundaries and coordinate digital initiatives across technology, operations, and customer-facing teams. Such cross-cutting vantage points are necessary for addressing the research questions, which focus on how paradoxical tensions, internal misalignments, and AI-

enabled coordination practices are experienced and managed across the organisation rather than within a single functional silo.

Snowball recommendations were used selectively to broaden the range of perspectives while maintaining a focus on practitioners with substantial digital transformation experience and decision-making responsibility. The final sample comprised experienced practitioners with at least ten years of relevant professional experience, including senior leaders, transformation practitioners, architects, product and operations specialists, and other roles with substantive exposure to digital transformation. Recruitment initially concentrated on practitioners working within or closely with the New Zealand insurance sector. This produced the 21-participant sample used principally in Manuscript 1 and provided depth within a shared regulatory and sectoral context. As the broader research programme developed, recruitment was extended to practitioners from other service-intensive sectors. A further 12 participants were included to introduce variation in organisational and industry context and to examine whether recurring coordination issues identified in the insurance-focused material were also evident elsewhere. The resulting 33-participant dataset (Chapter 3: Table I: Interview participant list) provides the broader empirical base used in Manuscript 2.

In total, 33 interviews were conducted with practitioners across multiple service organisations operating primarily in New Zealand and Australia. Participants were included because their roles provided direct experience of, responsibility for, or cross-functional visibility of digital transformation. The participants' roles and backgrounds illustrate the breadth of experience and organisational positions represented in the sample. As recruitment progressed, later interviews increasingly reinforced recurring patterns concerning legacy constraints, conflicting measures, cross-functional coordination, organisational priorities, and digital change rather than generating substantively new areas of inquiry. Later interviews continued to add contextual variation and nuance but produced diminishing changes to the developing coding structure. Recruitment ceased at 33 interviews when the dataset was judged sufficiently rich and varied to address the research questions and further interviews were primarily elaborating established empirical patterns (Lincoln & Guba, 1985; Malterud, 2001).

Table I: Interview participant list

ID	Role category	Organisation[1, 2]	Industry[4]	Experience
P1	Digital Engineering Leadership	Company 16	Insurance, Financial Services	22 years
P2	Transformation Leadership	Company 17	Insurance	32 years
P3	Data Leadership	Company 17	Insurance, Financial Services	21 years
P4	Customer Experience	Company 17	Insurance	28 years
P5	Regional Leadership	Company 5	Insurance, InsurTech	20+ years
P6	Digital & Data Leadership	Company 17	Insurance, Financial Services	30+ years
P7	Executive Leadership	Company 16	Insurance, Financial Services	20+ years
P8	Strategy & Architecture Leadership	Company 17	Insurance, Financial Services	20 years
P9	Digital, Data & Technology Leadership	Company 1	Insurance	22 years
P10	Architecture Leadership	Company 16	Insurance, Financial Services	21 years
P11	Portfolio, Planning & Change Leadership	Company 17	Insurance, Financial Services	25 years
P12	IT Operations & Engagement Leadership	Company 17	Insurance, Financial Services	26 years
P13	Underwriting	Company 4	Insurance	21 years
P14	Agile Delivery & Coaching	Company 8	FMCG, Data Services, Financial Services	30+ years
P15	Digital Solutions Architecture	Company 17	Insurance	22 years
P16	Process & Transformation Leadership	Company 17	Insurance	11 years
P17	Digital Commercial Leadership	Company 2	Insurance, Financial Services, Data Services	30+ years
P18	Financial Services Leadership	Company 6	Insurance, Financial Services, Data Services	20 years
P19	Executive Leadership	Company 10	Insurance, Financial Services, Data Services	22 years
P20	Technology Leadership	Company 16	Insurance	13 years
P21	Technology Infrastructure & Ops Leadership	Company 16	Insurance, Financial Services	24 years
P22[3]	Digital Innovation Leadership	Company 13; Company 14	Insurance, InsurTech, Financial Services	25 years
P23	Executive Leadership	Company 15	Data Services	24 years
P24	Engineering Leadership	Company 18	Data Services	12+ years
P25	Integration Architecture	Company 9	Data Services, Insurance, Financial Services	30 years
P26	Claims Executive Leadership	Company 7	Financial Services, Insurance	30+ years
P27	Consumer Experience Leadership	Company 16	Insurance	25+ years
P28	Project & Change Management	Company 3	Education, Insurance, Financial Services	25+ years
P29	Business Analysis	Company 16	Insurance	30+ years
P30	Former Senior Practitioner	Retired	Healthcare, Government, Insurance, Data Services	30+ years
P31	Agile Delivery & Coaching	Company 8	FMCG, Data Services, Financial Services	30+ years
P32	Agile Delivery & Coaching	Company 8	FMCG, Data Services, Financial Services	30+ years
P33	Agile Delivery & Coaching	Company 8	FMCG, Data Services, Financial Services	30+ years

[1] Organisation identifiers disguised to preserve confidentiality.

[2] Organisation of participant at the time of interview.

[3] Held leadership & ownership responsibilities in two organisations at the time of interview.

[4] Industries relevant to participants' professional experience

3.5. Data Analysis

This section explains how the raw empirical data from the interview responses were transformed into the themes, typologies, and conceptual insights that underpin the two manuscripts. The analysis followed an abductive, qualitative approach consistent with the philosophical position outlined earlier, rather than treating data as either a purely inductive source of codes or as material for testing pre-existing theories. The analysis involved iterative movement between participants' accounts, contextual secondary resources, and relevant theoretical literature. This approach allowed patterns in the empirical material to stimulate theoretical comparison and refinement while keeping the emerging concepts grounded in practitioners' experiences.

The secondary materials were not formally coded as a separate dataset. Instead, they were read and annotated iteratively to provide contextual grounding for the interview study and to keep the topics of inquiry anchored in current sector developments. Early readings of these materials informed the contextual focus of the inquiry and highlighted issues around risk, innovation, and customer centricity that could be explored through the interviews. As the thematic analysis progressed, key documents were revisited to assess whether emerging interview patterns aligned with or departed from the formal narratives presented in the secondary sources. In this way, secondary materials were used primarily to build contextual understanding, refine the interview protocol, and triangulate interview-based findings, rather than to generate a separate set of coded themes.

3.5.1. Analytical Approach

The data were analysed using an abductive thematic approach (Dubois & Gadde, 2002; Brandt & Timmermans, 2021), involving iterative movement between the interview material, emerging empirical patterns, and relevant theoretical literature. The aim was not to build theory purely inductively, but to allow patterns in the data to inform, refine, and/or challenge existing concepts. To present this process transparently, the analysis was organised into first-order, informant-centric categories combined with more abstract second-order themes using a Gioia-style coding structure (Gioia et al., 2012). In this thesis, the Gioia-style structure was used to organise codes and themes and make the progression from empirical material to theoretical abstraction visible, while the overall analytical logic remained abductive. This adaptation retained the distinction between informant-centric first-order categories and researcher-developed

second-order themes but did not assume that theoretical abstraction emerged through induction alone. Instead, second-order themes and aggregate dimensions were developed through iterative comparison between empirical patterns and relevant theoretical literature. The Gioia-style structure therefore served as a means of organising and communicating the analytical progression, while abductive reasoning informed the interpretation and refinement of the emerging theoretical constructs. Coded phrases such as "manual stitching of data" and "legacy system workarounds" were therefore retained in the coding before being connected to more abstract categories relating to organisational coordination, transformation tensions, and resource integration.

Across both manuscripts, this abductive approach shaped the interpretive process. For example, recurring accounts of digital initiatives that continued to operate while generating coordination problems prompted closer examination of how persistent organisational misalignment could progressively constrain resource integration. Continued comparison with SDL and value literature contributed to the subsequent development of value attenuation. Similarly, participants' accounts of using data visibility, pattern recognition, forecasting, and anomaly detection to support cross-functional coordination prompted further examination of how AI-enabled systems could perform bridging functions rather than being understood solely as automation tools. These emerging interpretations were returned to the interview material and refined through subsequent coding and comparison.

3.5.2. Abductive Transparency

The analysis combined a predominantly inductive engagement with the interview material with subsequent abductive theoretical interpretation. First-order coding remained close to participants' accounts and was not organised according to predefined categories derived from paradox theory, SDL, or an established digital transformation framework. Initial groupings of these codes were similarly descriptive, allowing recurring empirical patterns to become visible before they were interpreted through more abstract theoretical concepts.

The analysis became explicitly abductive as these empirical patterns raised questions that the descriptive categories alone could not adequately explain. At these points, relevant literature was introduced or revisited as an interpretive resource rather than as a predetermined coding framework. Analysis therefore involved movement between empirical observations and theoretical explanations, consistent with systematic combining (Dubois & Gadde, 2002) and

abductive inference (Timmermans & Tavory, 2012). Emerging interpretations were subsequently compared against the interview material and refined where they did not adequately account for variation in participants' experiences.

This process developed differently across the two manuscripts. In Manuscript 1, recurring accounts of organisations preserving established systems and practices while simultaneously pursuing digital innovation prompted closer engagement with paradox theory. This enabled these empirical patterns to be interpreted as different responses to persistent stability–innovation tensions and subsequently informed development of the tradition–innovation positions and DE mechanisms. In Manuscript 2, recurring accounts of fragmented structures, conflicting measures, and coordination difficulties initially appeared as forms of organisational misalignment. Continued comparison with SDL and value literature subsequently shifted the analytical focus towards how these conditions constrained resource integration over time, contributing to the development of value attenuation. AI followed a similar abductive path: it was introduced by participants rather than specified as an initial analytical category, and recurring accounts of its use in visibility, pattern recognition, forecasting, and coordination prompted subsequent interpretation of how AI-enabled systems may perform bridging operant functions.

Abduction therefore occurred principally in the movement from empirically grounded codes and descriptive themes towards theoretical explanation. The literature did not provide categories against which the interview data were tested; rather, empirical patterns prompted theoretical comparison, and the resulting interpretations were repeatedly returned to the data for refinement. The observations remained grounded in practitioner experience, while their explanation developed through iterative theoretical comparison.

3.5.3. Coding Process

The coding process involved two distinct analytical engagements with the original interview transcripts, reflecting the different research questions and theoretical premises of the two manuscripts. For Manuscript 2, the original transcripts were independently recoded rather than relying on or extending the coding structure developed for Manuscript 1. In each study, analysis proceeded through three broad movements. The first stage involved close reading of each transcript and identification of passages relevant to participants' experiences of digital transformation. Selected passages were retained in their original form before being summarised at two levels. A descriptive summary captured the substantive meaning of the passage, while a

shorter summary condensed that meaning to facilitate comparison across the dataset. These summaries were then assigned concise codes representing the issue, practice, tension, or condition being described. Maintaining the original excerpt alongside each stage of summarisation allowed codes to be repeatedly checked against participants' accounts as the analysis developed.

These codes initially remained descriptive rather than theoretical. For example, participants' accounts generated codes such as "AB testing governance", "Human oversight of AI", "Automation of repetitive tasks", "Agile over waterfall", and "Expert-led decisions". The purpose at this stage was to capture recurring empirical observations rather than assign them to predetermined theoretical constructs. Codes were subsequently compared across participants according to recurring similarities, differences, and relationships. The resulting coding structure was subsequently organised using a Gioia-style distinction between empirically grounded first-order categories, more abstract second-order themes, and higher-order theoretical dimensions. The Gioia structure therefore provided a transparent means of representing the progression from empirical material to theoretical abstraction; it did not constitute a separate analytical method or predetermined coding framework

In the next stage, first-order codes were compared for similarities, differences, and relationships across the dataset. Related codes were grouped into more abstract second-order themes capturing recurring organisational conditions or processes. For example, codes relating to duplicated work, fragmented systems, unclear responsibility, and cross-functional dependencies contributed to themes associated with structural misalignment, while codes concerning incompatible performance measures and competing definitions of success contributed to metric misalignment. In Manuscript 1, codes concerning legacy constraints, operational continuity, experimentation, and modernisation were examined in relation to different organisational responses to stability–innovation tensions. Analytic notes and coding comparisons were used to record why codes were grouped, consider alternative interpretations, and identify where recurring empirical patterns warranted engagement with or reconsideration of relevant literature (see Table II).

The final step integrated these second-order themes into broader aggregate dimensions that form the conceptual backbone of the typologies and models presented in Chapters 4 and 5. Themes relating to established organisations, strategic stability, and regulatory demands, for

example, were considered alongside those emphasising innovation, experimentation, and agility. Furthermore, misalignments across structures, metrics, and narratives were combined into a higher-level account of how persistent forms of misalignment could progressively constrain resource integration and weaken value-realisation capacity. This movement from first-order codes to aggregate dimensions was iterative rather than linear; themes were refined and recombined as new data were coded and as each manuscript developed its particular emphasis.

Table II: Illustrative coding progression

PID	Original empirical excerpt →	Descriptive summary/coding rationale →	First-order code →	Second-order theme →	Theoretical interpretation
P5	"you've got a system that they've got a huge investment and that isn't broken. So why should I spend X million to replace it?"	Existing systems remain because they continue to function and replacement requires substantial investment	Retaining functional legacy systems	Operational continuity/stability pressures	Operational Continuity; stability–innovation tension
P19	"what fundamentally, we have here is some amazing engines inside… We build API layers on top, and then you can build whatever experience you want."	Existing back-end capabilities are retained while API layers enable new digital experiences	API layers over established core	Incremental modernisation	Incremental Adaptation
P8	"can only move as fast as the slowest thing you can change… Can we deliver some value incrementally with the services we already have?"	Legacy dependencies constrain transformation pace, encouraging incremental delivery around existing capabilities	Incremental change around legacy constraints	Managing competing stability and innovation demands	Dynamic equilibrium/staged change
P15	"things that aren't being done anymore, because they assume someone else is doing it… Their delivery suffers from this, the holistic picture is not being delivered."	Ambiguous ownership and organisational isolation leave activities incomplete and impair overall delivery	Assumed ownership leaves work undone	Structural/coordination misalignment	Misalignment constraining resource integration
P16	"it was very slick from a customer perspective, but… behind the scenes, we would have a team of people… making those changes in the policy and the core policy system"	Apparently seamless digital service depends on continuing manual work because underlying systems are not integrated	Slick front end, manual work behind the scenes	Accumulating coordination/resource-integration burden	Value attenuation
P14	"you could have 50 of the best highest functioning agile teams… but still not getting anything out the market."	Strong local team performance does not necessarily produce effective organisation-level delivery	High-functioning teams but nothing reaches market	Fragmented organisational coordination	Value attenuation through constrained resource integration

3.5.4. Analytical Paths per Manuscript

Although both manuscripts drew on the same empirical material, their coding and analytical development were undertaken independently to address their distinct research questions and theoretical premises.

For Manuscript 1 (Chapter 4), analysis focused on identifying and explaining paradoxical tensions and organisational responses. Following initial descriptive coding undertaken for Manuscript 1, subsequent coding passes focused on segments in which participants described living with or responding to conflicting demands. Examples included maintaining legacy platforms while pursuing digital innovation or managing compliance and risk alongside speed and experimentation. These accounts were examined to identify different strategic positions along a tradition–innovation continuum, as well as the mechanisms organisations used to maintain a workable balance. Through iterative clustering and refinement, these patterns were developed into dual typologies: one of strategic approaches to digital transformation in the traditional service sector, and the other of DE mechanisms that pursued stability and innovation in tandem.

For Manuscript 2 (Chapter 5), the original interview transcripts were independently recoded in response to a different research context and theoretical premise. This analysis focused on how persistent intra-organisational misalignments constrained resource integration and progressively weakened value-realisation capacity, and on how organisational actors mobilised socio-technical resources in response to these coordination difficulties. Additional coding cycles examined recurring patterns of internal friction, coordination breakdown, resource integration, and the use of digital and AI-enabled technologies. These patterns were subsequently interpreted through relevant SDL and value literature as the theoretical explanation developed. Accounts were compared across interviews to examine how delays, rework, fragmented information, conflicting measures, and other persistent coordination frictions could accumulate while service activity continued.

This comparison contributed to the development of value attenuation as an explanation of progressive weakening in value-realisation capacity rather than as a distinct value outcome. At the same time, accounts of AI-enabled technologies supporting visibility, pattern recognition, forecasting, anomaly detection, and decision support were examined to understand the functions these resources could perform within organisational coordination. Subsequent

theoretical comparison contributed to interpreting some of these functions as potentially bridging in character, while recognising that their effects depended on human interpretation, organisational practices, data, and governance. From this analysis, value attenuation and the socio-technical coherence practices developed as mid-range theoretical concepts, with AI-enabled systems conceptualised as potentially performing bridging operant functions within those practices.

3.5.5. Triangulation and Integration

While the two manuscripts follow different analytic paths, they remain part of a single research programme. Although both manuscripts drew on the same pool of interview transcripts and secondary materials, their coding and theme development were undertaken independently in relation to their respective research questions. This separation allowed the empirical material to be examined through different analytical perspectives without requiring the thematic structure of one manuscript to determine that of the other. The 21 interviews analysed in Manuscript 1 formed part of the broader dataset of 33 interviews analysed in Manuscript 2, with each manuscript applying a distinct coding structure and theoretical lens to address its respective research questions. Manuscript 1 focused on paradoxical tensions and organisational positioning; Manuscript 2 re-engaged with the raw data, focusing on intra-organisational misalignment, resource integration, value-realisation capacity, and socio-technical coordination. Conceptually, insights from each study sensitised the analysis to related organisational conditions examined in the other, while the coding structures, analytic emphases, and theoretical development remained distinct for each manuscript.

Triangulation was used in several ways to strengthen the analysis. Interview accounts were compared across roles and organisations to identify perspectives on similar initiatives or challenges, indicating whether particular tensions or coordination problems were widely experienced or specific to certain contexts. Secondary materials were compared alongside participant accounts to cross-check and contextualise claims, for instance, by comparing formal strategy statements with described practices and outcomes. Analytical credibility was supported through ongoing supervisory review and informal feedback from three interview participants. Both supervisors read approximately five verbatim transcripts and periodically reviewed the developing codes and interpretations, approximately every four interviews. The evolving codebook was also discussed during multiple supervisory meetings before preparation of the

first manuscript draft. These discussions provided opportunities to question emerging interpretations, refine category boundaries, and consider alternative explanations.

The informal participant discussions also provided opportunities to reflect on developing interpretations. These discussions informed the researcher's reflexive engagement with the data but did not constitute a formal member-checking procedure or independent validation of the findings. Credibility was further supported through iterative comparison of interview accounts, secondary materials, and emerging theoretical interpretations. Taken together, this integration across data sources, participants, and analytic cycles contributed to the credibility and coherence of the final themes and models.

3.6. Quality and Trustworthiness

In line with qualitative research traditions, the quality of this study is assessed in terms of credibility, transferability, dependability, and confirmability rather than through quantitative notions of validity and reliability (Lincoln & Guba, 1986). This section outlines the strategies used to enhance trustworthiness and reflects on the researcher's positionality and its implications for the study.

3.6.1. Credibility

In this research, credibility refers to the extent to which the findings are plausible and grounded in the data (Graneheim et al., 2017). Credibility was supported through sustained engagement with the empirical material, comparison across participants and organisational contexts, and the iterative checking of developing interpretations against the original interview excerpts. The interview sample included practitioners occupying different functional and leadership positions, enabling recurring issues to be considered from multiple organisational perspectives rather than relying on a single role or function. Contextual secondary materials provided an additional point of comparison through which participants' accounts could be situated within wider industry and organisational developments.

Credibility was further supported through the iterative analytical process described in Section 3.5. Emerging codes, themes, and theoretical interpretations were repeatedly returned to the underlying empirical material to assess whether they adequately represented similarities and variation across participants' accounts. Illustrative quotations used in the manuscripts were

checked against the original interview material to maintain traceability between participants' accounts and the interpretations presented.

3.6.2. Transferability

Transferability concerns the extent to which readers can assess the relevance of findings beyond the settings in which they were developed rather than statistical generalisability (Lincoln & Guba, 1986). The research therefore provides contextual information concerning the service settings, participant roles, organisational conditions, and digital transformation experiences represented in the study. Manuscript 1 provides depth within the New Zealand insurance setting, while Manuscript 2 draws on greater contextual variation across service-intensive organisations. Together, these provide a basis for considering whether the identified patterns may be theoretically relevant in comparable organisational settings.

The thesis does not claim that the typologies, value attenuation process, or coherence practices will occur identically across all organisations or industries. Their transferability depends on contextual conditions such as regulatory exposure, organisational structure, technological infrastructure, digital maturity, and the nature of service delivery. The detailed participant and research-context information provided in Sections 3.3 and 3.4 is intended to enable readers to make these contextual judgements.

3.6.3. Dependability and Confirmability

Dependability and confirmability were supported by maintaining an identifiable analytical trail from original interview excerpts through to descriptive and shortened summaries, initial codes, thematic groupings, and subsequent theoretical interpretation. Versions of coding frameworks and thematic categorisations were retained as the analysis developed, allowing changes in interpretation to be traced rather than presenting the final conceptual structure as if it had existed from the outset. Examples of this progression are provided in Section 3.5 and Appendices 6 and 8.

Confirmability was further supported by checking coded material and illustrative quotations back against the original interview excerpts and by discussing developing interpretations with academic supervisors. These processes provided opportunities to identify where interpretations extended beyond the empirical material, where alternative explanations remained plausible, and where theoretical claims required qualification. The objective was not to eliminate researcher interpretation, which is inherent in the interpretive epistemology adopted in this thesis, but to

make the relationship between empirical material and theoretical interpretation transparent and open to scrutiny.

3.6.4. Researcher Positionality

As noted in Chapter 1, the researcher brings extensive professional experience in digital and marketing roles within service organisations. This background provided familiarity with digital transformation terminology, processes, and organisational dynamics, which helped facilitate access to interviewees, aided rapport development with participants, and afforded sensitivity when discussing subtle tensions around stability, innovation, and coordination.

This industry experience also carries the risk of normalising assumptions about customer centricity or the inevitability of certain coordination problems. To mitigate this, the research design incorporated ongoing reflexive practice. Analytical notes and reflections were used to record prior assumptions, reactions to emerging findings, and points at which interpretations required reconsideration. At the same time, supervisors provided critical distance and challenged interpretations that appeared to rely too heavily on prior experience. By making this position explicit, the research acknowledges how prior professional experience shaped access, questioning, interpretation, and theoretical sensitivity while maintaining reflexive scrutiny over those influences.

3.7. Study-Specific Research Design

Although the two manuscripts emerged from the same broader empirical programme, each establishes a distinct empirical boundary, analytical emphasis, and theoretical engagement. Manuscript 1 applies a sector-wide bounded case logic to the New Zealand insurance context and examines strategic responses to persistent stability–innovation tensions. Manuscript 2 re-engages the broader cross-sector dataset to examine intra-organisational misalignment, resource integration, value attenuation, and socio-technical coordination. The following sections summarise these study-specific designs without repeating the data-collection and analytical procedures described in Sections 3.4 and 3.5.

The distinction between the studies is also reflected in their theoretical constructs. Manuscript 1 develops DE mechanisms as organisational responses through which persistent stability–innovation tensions are navigated. Manuscript 2 develops coherence practices as

recurring socio-technical practices through which actors respond to coordination frictions and sustain, recalibrate, or help restore conditions for resource integration. These constructs therefore operate at different analytical levels and should not be interpreted as equivalent mechanisms.

3.7.1. Research Design for Manuscript 1

Manuscript 1 examines how organisations navigate persistent tensions between stability and innovation during digital transformation within the New Zealand insurance sector. The study draws principally on the insurance-focused component of the interview programme, supported by contextual secondary material concerning transformation, regulation, legacy infrastructure, risk, and innovation within the sector. This sectorally bounded design enabled different organisational responses to be compared within a shared institutional and technological context.

Analysis focused on participants' descriptions of competing demands that were persistent and interdependent rather than discrete transformation problems. Recurring accounts concerning operational continuity, legacy systems, regulatory requirements, experimentation, modernisation, and innovation were progressively compared and subsequently interpreted through paradox theory. This analysis informed development of the tradition–innovation positions and the DE mechanisms reported in Chapter 4. The analytical progression and illustrative coding structure are provided in Appendix 6.

3.7.2. Research Design for Manuscript 2

Manuscript 2 examines how persistent intra-organisational misalignments constrain resource integration during digital transformation and how organisational actors respond through socio-technical coordination practices. Unlike Manuscript 1's sectorally bounded insurance focus, Manuscript 2 draws on the broader interview dataset across service-organisational contexts. This wider empirical scope provided contextual variation through which recurring structural, metric, and cultural-interpretive misalignments could be compared across different organisational settings.

The coded material was re-engaged with particular attention to accounts of fragmented structures and systems, conflicting measures and priorities, differences in organisational interpretation, delays, rework, workarounds, and other recurring coordination frictions. Continued comparison with SDL and related value literature shifted the analytical focus towards how persistent misalignment could progressively constrain actors' capacity to integrate

resources. This contributed to the development of value attenuation as a process of progressive weakening in value-realisation capacity rather than as a distinct value outcome. The analysis also identified recurring socio-technical practices through which organisational actors responded to coordination frictions and sought to sustain, recalibrate, or help restore conditions for resource integration.

AI-related evidence was analysed within this broader coordination context rather than treating AI as a homogeneous technology or autonomous organisational actor. Participants described different AI-enabled capabilities, including automation, pattern recognition, forecasting, anomaly detection, and decision support. Through subsequent theoretical comparison, these accounts informed the interpretation that AI-enabled systems may perform bridging operant functions when appropriately configured and integrated with human expertise, organisational routines, shared data, and governance arrangements. This is therefore a contingent functional interpretation rather than a classification of AI itself as a bridging operant resource. The detailed conceptualisation and empirical grounding of value attenuation, coherence practices, and bridging operant functions are presented in Chapter 5 and Appendix 8.

3.8. Ethical Considerations

Ethical approval for this research was granted by the Auckland University of Technology Ethics Committee (AUTEC), application 24/40, on 17 June 2024 (see Appendix 12: Ethics Approval). Participants received an information document outlining the purpose of the research, the nature of the interviews, and the intended use of the data, presented in a thesis-by-manuscript structure.

Confidentiality was a central concern as most interviewees held senior roles and were discussing commercially sensitive aspects of digital transformation (see Appendix 13: Transcription Confidentiality Agreement). No individuals or organisations are named in the thesis; any potentially identifying details were removed or generalised during transcription and reporting. Before and after each interview, participants were reminded that their involvement was voluntary, that they could decline to answer any question, pause the interview, or withdraw from the study without giving a reason. Where organisational access permission was required, approval was obtained from an appropriate organisational representative before participant recruitment or interviewing proceeded. This consent approval was sought from executive-level members (see

Appendix 14: Staff Access Permission) and direct-report leaders of participants (see Appendix 15: Employee Permission Form), with each approval accompanied by an information sheet (see Appendix 16: Information Sheet for Employee Access).

One ethics application covered the whole interview programme. This decision was taken for three related reasons. First, the people invited into the study were senior practitioners whose diaries were already tightly scheduled. Asking them to sit through separate interviews for each manuscript would have been difficult to justify and risked losing their willingness to participate. Second, post-COVID-19 patterns of work and meetings meant that in-person access to executives remained limited, and the pool of suitable contacts in the researcher's network was small. Running two rounds of recruitment and consent with largely the same group would have stretched that pool and added extra pressure on participants. Third, the study followed an abductive and exploratory logic (see Section 3.5), and it was not possible at the outset to draw a sharp line between questions that would feed only Manuscript 1 and those that would feed only Manuscript 2. A single, broad interview guide, clearly described in the information sheet as contributing to a multi-manuscript doctoral project (see Appendix 3: Information Sheet for Participant), allowed the enquiry to evolve without repeatedly seeking new approvals from the same individuals.

All interview recordings and transcripts were stored on password-protected university systems in line with Auckland University of Technology requirements. Versions of coding frameworks and theme categorisations were also retained to allow the path from first-order codes to aggregate themes to be followed. The empirical chapters include illustrative quotations to show how interpretations are grounded in participants' accounts, while contextual secondary material is used to situate and compare those interpretations. Making these links visible helps to demonstrate how data were collected, analysed, and used across both manuscripts and supports the ethical commitment to transparency in the research process.

3.9. Summary

This chapter has outlined the philosophical foundations, research design, data collection, analytical process, and procedures used to support the quality and ethical integrity of the research. The thesis adopts a critical realist ontology, interpretive epistemology, and abductive logic of inquiry, providing a basis for examining how organisational conditions and practices are

experienced by practitioners while developing theoretically informed explanations of the patterns observed across their accounts.

The research was undertaken as a qualitative multi-study programme based on a shared empirical foundation of contextual secondary material and 33 semi-structured practitioner interviews. Manuscript 1 applies a sectorally bounded case logic to the New Zealand insurance context to examine persistent stability–innovation tensions and organisational responses to them. Manuscript 2 re-engages the broader service-sector dataset to examine intra-organisational misalignment, resource integration, value attenuation, and socio-technical coordination. The relationship between the studies is therefore complementary rather than sequential, with each addressing a different analytical dimension of digital transformation.

Analysis combined predominantly inductive engagement with the empirical material and subsequent abductive theoretical interpretation. The coding process maintained traceability from original interview excerpts through descriptive summaries and codes to more abstract themes and theoretical constructs, while the two manuscripts followed distinct analytical paths aligned with their respective research questions. Together, these methodological choices provide the foundation for the two empirical manuscripts presented in Chapters 4 and 5 and their subsequent integration in Chapter 6.

Chapter 4: Navigating Intra-Organisational Paradoxes

Preface

Chapter 4 presents Manuscript 1 titled 'Tradition and Innovation: A Paradoxical Perspective on Digital Transformation in Service Organisations'. This article examines how organisations in traditional, highly regulated service sectors navigate paradoxical tensions between stability and innovation during transformation initiatives, drawing on empirical evidence from experienced senior digital transformation practitioners. This chapter has been submitted to the Journal of Business Research.

Myhre, C. J., Yap, S. F., Errmann, A. C. (2025). Tradition and Innovation: A Paradoxical Perspective on Digital Transformation in Service Organisations. Manuscript under review in the Journal of Business Research.

4.1. Abstract

This paper explores how service organisations navigate internal contradictions during digital transformation, focusing on the paradox between tradition and innovation. Drawing on paradox theory and DE, we examine how tensions unfold and are managed within regulated service environments. Using an abductive qualitative approach, we analyse interviews with 21 senior insurance practitioners and secondary industry data. We identify four transformation approaches that represent distinct organisational positions in navigating the tradition–innovation paradox. We elaborate how DE may be enacted through ongoing organisational adjustments and transitional mechanisms rather than a fixed strategic balance. For managers, the findings show that digital transformation in legacy service organisations cannot be addressed through linear change programs. Leaders must design structures that allow enduring tensions to coexist. The typology provides a diagnostic framework for recognising dominant responses to paradox and assessing their implications. Practically, this may help leaders consider how governance, culture, and capability can be aligned to support innovation while maintaining regulatory and operational continuity.

Keywords: Digital transformation, Paradox theory, Dynamic equilibrium, Ambidexterity, Insurance, Organisational change, Service innovation

4.2. Introduction

The growing imperative for service organisations to digitally transform reflects both technological advancements and shifting service expectations. Today's customers demand seamless, personalised, and convenient interactions across digital channels, which requires firms to fundamentally reconfigure how value is delivered (Soellner et al., 2024; Vial, 2019). In contrast to product-based sectors, where digital transformation often involves external partnerships or platform strategies, service organisations must frequently embed digital technologies deep within their internal processes and systems, many of which were not designed for rapid or modular change (Eriksson & Heikkilä, 2023). This matter is especially salient in regulated industries like insurance, where operational stability, legal compliance, and legacy IT architectures often constrain the pace and scope of innovation. Unlike industries that can adopt a "clean slate" approach, insurers face friction in embedding digital solutions into entrenched legacy systems that underpin underwriting, claims processing, and policy administration (Ravat et al., 2024; Liu, Wei, & Bao, 2024). This study responds to that challenge by offering a practical framework to help leaders identify and manage internal tensions that can impede transformational progress. For these firms, digital transformation involves not wholesale reinvention but balancing the drive for innovation with the need to maintain core operational stability.

These contradictions are conceptualised as organisational paradoxes, or persistent tensions between competing yet interdependent forces (Smith & Lewis, 2011). Paradox theory provides a lens for examining how firms navigate tensions that cannot be resolved outright but must be continually balanced over time (Beech et al., 2004). In service digital transformation, paradoxes are not occasional implementation hurdles, but ongoing challenges embedded within organisational routines, structures, and assumptions. Legacy systems may enable continuity and compliance but simultaneously restrict innovation and agility. Similarly, efforts to become customer-centric can create internal friction when governance models or performance metrics remain rooted in outdated operational logics.

We focus on the paradox between tradition and innovation, a central tension in service transformation. Organisations that must simultaneously modernise their internal processes and maintain operational reliability particularly accentuate this paradox. Building on paradox theory, we explore how firms strive toward DE, understood as an ongoing process of recalibrating

responses to paradoxical tensions rather than reaching a fixed balance point (Smith & Lewis, 2011; Jarzabkowski et al., 2013). Our focus is on how this process is enacted through organisational responses to the tradition–innovation paradox during digital transformation in complex service systems.

Although paradox theory has been applied to intra-organisational tensions and digital transformation, further explanation is needed of how legacy-constrained service organisations position themselves in relation to competing stability and innovation demands, and how they enact DE mechanisms in response to these tensions (Eggert et al., 2022). Yet the internal frictions associated with digital transformation, such as cultural resistance, legacy infrastructure, misaligned KPIs, and fractured change narratives, play a critical role in shaping whether and how transformation succeeds. While existing studies identify important intra-organisational tensions and coping practices, further understanding is needed of how different strategic approaches to the tradition–innovation paradox relate to the mechanisms through which these tensions are managed. To address this gap, our study asks: How do service organisations internally navigate paradoxes between stability and innovation during digital transformation?

We examine this question in the context of the insurance industry, which is often viewed as a paradigmatic example of a regulated, legacy-bound service sector. Using a two-phase, abductive methodology, we first analysed secondary industry reports and case materials to contextualise the broader field of digital transformation in insurance. We then conducted 21 semi-structured interviews with senior digital leaders, architects, and strategists within New Zealand's insurance industry. While the empirical setting is industry-specific, our theoretical goal is to develop transferable insights into the internal paradoxes of digital transformation and the mechanisms firms use to manage them.

Our study makes three core contributions. First, we develop a typology of intra-organisational transformation logics, identifying four ideal types (*Operational Continuity, Incremental Adaptation, Foundational Modernisation*, and *Dynamic Reimagining*). These logics reflect how firms interpret and respond to the paradox of tradition and innovation, providing a structured account of different strategic positions during digital transformation. Second, we elaborate how DE may be enacted through organisational mechanisms that enable firms to navigate persistent tensions between operational continuity and innovation. Rather than redefining DE as a process, we identify contextually grounded mechanisms through which

organisations attempt to sustain or recalibrate their responses to these competing demands. Third, we extend understanding of intra-organisational paradoxes in digital transformation by examining the relationship between strategic positioning and DE mechanisms within legacy-constrained, regulated service environments (Eggert et al., 2022; Smiljic et al., 2022). In doing so, we highlight how internal organisational conditions shape the ways in which service organisations pursue digital innovation while maintaining operational continuity.

This study contributes to paradox theory by extending its application to intra-organisational tensions during digital transformation, particularly in regulated service environments. For managers, the research offers a practical typology to diagnose how their organisation is currently managing the tradition–innovation paradox. It highlights strategies to transition from legacy constraints to more adaptive digital architectures. It also elaborates how DE may be enacted through organisational mechanisms that support ongoing responses to the tradition–innovation paradox.

4.3. Theoretical Background

4.3.1. Digital Transformation in the Service Industry

In service industries like insurance, digital transformation involves the reconfiguration of organisational operations, structures, and service delivery processes through the integration of digital technologies (Soellner et al., 2024; Vial, 2019; Zaki, 2019). Unlike mere technological implementation, digital transformation in these contexts requires a fundamental shift in internal and customer-facing systems, often shaped by constraints such as legacy infrastructure, regulatory compliance, and risk-averse organisational cultures (Eriksson & Heikkilä, 2023; Ravat et al., 2024).

While manufacturing firms may focus on physical product-service reconfigurations (Beverungen et al., 2020), service firms face particular challenges in transforming workflows, user interfaces, and governance processes (Tronvoll et al., 2020; Eggert et al., 2022). To manage this complexity, insurers are increasingly adopting modular architectures to enable incremental innovation without destabilising core operations (Soellner et al., 2024; Ruffoni & Reichert, 2024). These technical strategies also reflect a deeper organisational effort to balance competing demands: innovation versus continuity, modernisation versus risk, and speed versus compliance. Internal tensions in service firms inherently shape digital transformation, influencing transformation pace, pathways, and execution.

4.3.2. Conceptualising Paradoxes in Intra-Organisational Contexts

Paradoxes are defined as "contradictory yet interrelated elements (dualities) that exist simultaneously and persist over time" (Smith & Lewis, 2011). Unlike conflicts, which may be resolved, paradoxes endure, requiring organisations to engage in ongoing balancing. Within intra-organisational settings, paradoxes are especially salient, as firms continuously navigate tensions such as stability vs. change, order vs. flexibility, and exploitation vs. exploration (Lewis, 2000; Leo et al., 2022). Within organisations, these paradoxes are embedded in structures, routines, and decision-making logics that shape how competing demands are interpreted and managed (Smiljic et al., 2022; Plekhanov et al., 2022).

In legacy-constrained service contexts, the tradition–innovation paradox becomes central. Legacy systems ensure compliance and operational consistency but also limit responsiveness, integration, and digital agility (Soellner et al., 2024). This duality creates enduring internal friction, particularly in firms such as insurers, where customer-facing digital solutions must be deeply integrated with back-end infrastructure (Ravat et al., 2024).

4.3.3. Paradox Theory and Dynamic Equilibrium

Paradox theory provides a valuable lens for understanding how organisations engage with these enduring tensions. Rather than viewing legacy systems purely as constraints, paradox theory enables their reinterpretation as stable anchors that can support innovation when managed appropriately (Erdogan et al., 2019; Hsieh et al., 2013). To navigate this paradox, firms adopt "both/and" strategies (Smith & Lewis, 2011), enabling legacy systems to coexist with emerging technologies. For example, insurers may integrate AI tools atop legacy platforms through digital interfaces or middleware, enabling both continuity and responsiveness (Soellner et al., 2024). However, the technical side is only part of the equation. Organisational sensemaking is also required to align competing values such as customer expectations for personalisation and speed versus internal imperatives for compliance and security (Eggert et al., 2022). When firms fail to recognise the interdependence of such values, a phenomenon known as paradox blindness, they risk making either/or decisions that limit long-term transformation success (Yrjölä et al., 2024; Greene & van Riel, 2021).

The concept of DE in paradox theory refers to an organisation's capacity to continuously balance such tensions over time (Smith & Lewis, 2011; Beech et al., 2004). Sustaining DE requires more than technical workarounds. Service firms increasingly rely on layered

transformation strategies by embedding digital capabilities via integration layers and microservices that preserve legacy systems while enabling innovation (Soellner et al., 2024; Ruffoni & Reichert, 2024). Yet this ongoing balancing also depends on cross-functional coordination, leadership alignment, and ambidextrous organisational design (AlNuaimi et al., 2022; Sok & O'Cass, 2015). In this way, tradition is not abandoned but strategically reframed, allowing innovation to take root under complex, regulated conditions (Smith & Beretta, 2021). This study builds on these foundations by examining how insurers navigate the transformation journey through dynamic tension management and organisational learning. Building on Smith and Lewis's (2011) understanding of DE as an ongoing process of managing persistent paradoxical tensions, this study examines how such responses are enacted within legacy-constrained service organisations undergoing digital transformation. The contribution therefore lies not in establishing the processual nature of DE, but in identifying the strategic positions and organisational mechanisms through which firms attempt to navigate the tradition–innovation paradox.

4.3.4. Paradoxical Tension in Organisational Transformation

Current research on paradoxical tensions in digital transformation has produced useful insights into the complexities organisations face when navigating technological change. For example, tensions between innovation and alignment are evident in firms undergoing digital transformation, particularly in their shifting between exploration and stability through iterative change processes (e.g., Coreynen et al., 2023). To establish our research motivation, we present an overview of past empirical studies examining tensions and paradoxes associated with digital transformation. Using combinations of the search terms: '*paradox*' OR '*contradiction*' OR '*conflict*' OR '*tension*' AND '*digital transformation*' OR '*servitisation*' OR '*conceptualisation*' OR '*digitisation*,' we identified 14 relevant articles. Table III summarises the key empirical evidence, with most studies published in management and information systems journals.

Table III: Overview of selected empirical studies

Reference	Focus	Methods	Key insights
Klein et al. (2024)	Relation between paradox mindset, attitude toward change and employees' acceptance of digital transformation strategy	Online survey & secondary data	Employees with a paradox mindset are likely to accept the digital transformation strategy regardless of the expected scope of change
Appio et al. (2024)	Organisational and process-level managerial actions for SMEs to successfully access and implement digital technologies	Action research	3 distinct paradoxes shaping the digital transformation process: 1) the humans' key role (skills), 2) resources scarcity vs abundancy (resources), 3) power to the smallest (size), providing insights into SMEs' tensions during the digital transformation journey
Li et al. (2024)	Ambidexterity: The tensions between exploration and exploitation in digital transformation context	Firm-level panel data	An inverted U-shaped relationship between exploration proportion in innovation ambidexterity and performance. Advancement in digital transformation shifts the optimal balance point towards exploitation.
Wosny et al. (2024)	Lived experiences of health care professionals (HCPs) navigating digital tools and their well-being	Qualitative in-depth interviews	6 paradoxes highlight challenges in hospital digitalisation: the promise of efficiency and the reality of inefficiency, the shift from face-to-face to interface, frustration vs. dedication, information access vs. trust, intersection of workflow and care paths, the opportunities and challenges of shadow IT.
Qin (2023)	Paradoxes in digital transformation and the role of digital affordances in overcoming them	Case study	Identify 3 digital transformation paradoxes: flexibility & stability of organisation structure; cost & profit; perception between executives & employees. Propose 3 digital affordances to address them: digital decentralisation, digital agility and digital citizenship.
Koukouvinou et al. (2023)	Impact of paradoxical tensions on the trajectory of digital transformation initiatives	Single case study	3 tensions (i.e., knowledge flow, collaboration vs. competition, others linked to trust, IP protection, power dynamics & networks) must be managed in digital transformation.
Chaudhary et al. (2022)	Paradoxes in early stages of servitisation and coping mechanisms in manufacturing firms	Qualitative open-ended essay	Reveal 3 broad paradoxes: the paradox of organising, the paradox of learning and the paradox of performance and 4 coping practices: change management, open communication, training programmes and conceptualisation.
Johansson et al. (2022)	Characteristics of tensions and organisational paradoxes in digital transformation and the constraints and enablers of balancing practices	Embedded case study (surveys &workshops)	Identified 2 tensions in digital transformation: Divergence at different organisational levels (characterised as being latent) and competing demands between past, present and future needs (characterised by being salient). Discussed balancing practices that foster digital ambidexterity and drive virtuous cycles.
Danneels & Viaene (2022)	Organisational paradoxes in digital transformation and their role in decision-making	2-year action design study	Presents design knowledge to identify organisational paradoxes. Enhances understanding of digital transformation paradoxes through learning and belonging tensions and offering new insights into how paradox knowledge is created and used.

Chi et al. (2025)	Shows how digital transformation can simultaneously weaken resistance capacity while strengthening recovery capacity	Secondary archival data	digital transformation weakens resistance capacity but enhances recovery capacity. High customer and supplier concentrations mitigate the negative impact of digital transformation on resistance capacity
Wimelius et al. (2021)	Paradoxical tensions and their impact on the trajectory of initiatives to renew an organisation's foundational digital technology	Longitudinal case study	Apply 3 tensions (a) established vs. renewed technology, (b) deliberate vs. emergent renewal practices, (c) inner vs. outer contexts to explain how organisation's responses to these tensions created a vicious cycle of investments in incompatible platforms.
Berger-Remy et al. (2021)	Tensions in marketing organisation affected by the ongoing digital transformation and their role in driving organisational changes and reconfigurations.	Qualitative interviews	Identify 3 paradoxes: a learning paradox (the combination of traditional and digital marketing skills), an organising paradox (both expertise and a holistic view), and a performing paradox (both customer and brand centricity).
Smith & Beretta (2021)	Balancing separation and integration by designing a hybrid organising model; how coping with tensions that emerged from this organising model affected digital transformation.	Longitudinal, qualitative case study	Show how the hybrid organising model created 3 paradoxes (paradoxes of organising, attention, and knowledge sharing) and how coping with these paradoxes led to changes in the model, with management adapting it for long-term sustainability.
Sok & O'Cass (2015)	Impact of service innovation exploration-exploitation on financial performance through the delivery of quality services	Multi-informant survey of service firms	Findings suggest that firms need to pursue both exploitation and exploration at high levels simultaneously by adopting combined and balanced innovation underscoring importance with strategically utilising slack resources to address stability and innovation.

Our synthesis indicates that many studies have focused on identifying and categorising tensions that arise as organisations implement digital transformation initiatives. For example, previous researchers have identified several paradoxes that shape digital transformation and value processes in organisations. Fyrberg and Jüriado (2009) describe tensions between collaboration and competition in service ecosystems, showing how interaction quality and power dynamics influence co-creation. Other work highlights tensions in organising, learning, and performance (Berger-Remy et al., 2021; Chaudhary et al., 2022), as well as the flexibility versus stability of organisational structures (Qin, 2023). Further studies point to resource limitations in innovation processes, where employees actively shape outcomes through ongoing, recursive involvement (Engen et al., 2021; Appio et al., 2024).

Typically, these tensions emerge inductively from empirical data rather than from theoretical predetermination. Exceptions include studies by Li et al. (2024) and Sok and O'Cass (2015),

which conceptualise ambidexterity as a balance between exploration (innovation) and exploitation (efficiency). Li et al. (2024) present an inverted U-shaped relationship between exploration proportion and innovation performance, underscoring the need for a delicate balance in digital transformation initiatives. Similarly, Sok and O'Cass (2015) address the exploration-exploitation tension by highlighting its critical role in achieving service quality within dynamic service environments. Their findings also emphasise the importance of strategically deploying organisational resources to navigate competing demands for stability and innovation. Building on this resource-based view, Do et al. (2021) empirically demonstrate that organisational resilience and innovation are not only outcomes of resource allocation but are actively mediated by organisational learning processes, particularly when firms face high environmental dynamism. This suggests that the ability to strike a balance between tradition and innovation is itself a dynamic capability that requires continuous adjustment of internal procedures. Collectively, these studies indicate that paradoxes are deeply embedded in organisational processes and require adaptive coping mechanisms.

Another line of research focuses on coping mechanisms, including how organisations manage paradoxical tensions in foundational technology renewal (Wimelius et al., 2021), how healthcare professionals navigate digital tools in everyday practice (Wosny et al., 2024), and the role of digital affordances in managing internal contradictions (Qin, 2023). Other scholars have identified mechanisms such as change management, open communication, training programmes, and staged digitalisation (Chaudhary et al., 2022). Some studies have highlighted balancing practices that support digital ambidexterity and drive virtuous transformation cycles (Johansson et al., 2022). Smith and Beretta (2021), for example, examined the interplay between separation and integration via hybrid organising models, demonstrating how these structures evolve in response to emerging tensions. More generally, scholars have emphasised the relational and systemic dimensions of digital transformation. Koukouvinou et al. (2023), for instance, investigated paradoxes in the forestry sector, revealing how trust, intellectual property concerns, power dynamics, and structural hierarchies shape transformation trajectories. Johansson et al. (2022) similarly identified organisational-level divergences and competing demands across temporal horizons (past, present, and future), reinforcing the need for structured balancing practices. Together, these studies provide a foundation for understanding how organisations adapt internal structures and practices to manage paradoxical demands.

A growing body of research also examines individual-level responses to digital transformation paradoxes. Klein et al. (2024) explore the role of a paradoxical mindset in fostering employee acceptance of digital transformation strategies, showing that individuals who embrace contradictory demands are more adaptable to organisational change. Chi et al. (2025) reveal that digital transformation introduces structural vulnerabilities by reallocating resources away from disruption preparedness, even as it strengthens firms' adaptive and recovery capabilities. Together, these studies illustrate how digital transformation tensions may manifest through both individual responses and broader organisational capabilities.

Two key reflections emerge from our synthesis of prior research. First, much of this literature identifies and categorises paradoxical tensions and associated coping practices, while providing comparatively less explanation of how different strategic positions relate to the mechanisms through which organisations navigate these tensions during digital transformation. For example, studies highlight tensions and organisational responses (e.g., Berger-Remy et al., 2021; Wimelius et al., 2021), but further explanation is needed of how these responses relate to different organisational approaches to digital transformation. Additionally, the evolving and recursive nature of responses to paradoxical tensions is often underexplored, particularly how tensions shift and are reframed at different stages of a digital transformation initiative.

Second, although existing research examines tensions between established and renewed technologies, stability and flexibility, and exploration and exploitation, less attention has been directed towards the tradition–innovation paradox as an organising perspective for understanding strategic positioning within legacy-constrained service organisations. While some studies touch on relevant issues, such as tensions between established and renewed technologies (Wimelius et al., 2021) or the trade-off between flexibility and stability in structures (Qin, 2023), they provide less explanation of how these tensions relate to distinct organisational positions and the mechanisms through which firms navigate them. This absence limits our understanding of how organisations manage the interplay between long-standing technological infrastructure and emerging digital demands (Danneels & Viaene, 2022). This paradox is especially relevant in sectors like insurance, where legacy systems are deeply embedded and yet innovation is essential for ongoing competitiveness.

Our research addresses these gaps by exploring the manifestation of the tradition–innovation paradox within service organisations, with a particular focus on internal

transformation processes. We develop a descriptive typology to explain how firms position themselves in relation to digital transformation tensions and a prescriptive typology to identify potential transitional pathways and DE mechanisms through which organisations may navigate paradoxical demands over time. In doing so, we contribute to a more profound understanding of how legacy-constrained service firms orchestrate digital transformation from within.

4.4. Method

Considering that tensions inherent in digital transformation are highly context-specific, we adopted an exploratory qualitative research design focused on the New Zealand insurance sector. This approach enabled us to examine how experienced practitioners across different organisations understood and navigated competing demands during digital transformation (Ozcan et al., 2017). The insurance sector provides a particularly relevant context because organisations face challenges in embedding digital solutions into entrenched legacy systems that support continuity and compliance but may constrain agility in adopting new technologies (Ravat et al., 2024; Liu, Wei, & Bao, 2024). The study drew on semi-structured interviews with 21 insurance practitioners, supplemented by secondary industry data. Rather than treating the industry as a single organisational case, the analysis focused on practitioners' accounts of paradoxical tensions and organisational responses within this shared sectoral context. The study followed a two-phase abductive research design, allowing insights from contextual industry analysis, interview data, and relevant theory to inform the development and refinement of our interpretations. The two phases are outlined in the subsequent sections.

4.4.1. Phase 1: Secondary Data Analysis for Contextual Industry Insights

In Phase 1, we developed a foundational understanding of the insurance industry and digital transformation development within this context. We analysed the current state of the insurance industry globally and in the New Zealand market, drawing on a wide range of secondary data sources, including industry reports, company websites, government and business publications, press releases, annual reports, and opinion pieces (see Appendix 2: Secondary Data). This analysis offered new perspectives on the origins, operations, regulatory environment, market dynamics, and economic context of insurance businesses in New Zealand, as well as the drivers, challenges, and best practices of digital transformation within the sector. The findings from Phase 1 provided contextual understanding of digital transformation and its implementation within the

insurance industry. These insights informed the refinement of our research question and interview guide (Miles & Huberman, 1994) and subsequently provided contextual material against which interview accounts could be compared during analysis.

4.4.2. Phase 2: Qualitative Fieldwork Through In-Depth Interviews

Using a purposive and snowball sampling method, we initially recruited experienced industry professionals as participants through the first author's professional network, leveraging their dual role as a digital practitioner and academic with extensive connections in the insurance sector. We then employed a snowball sampling technique, asking participants to recommend other potential candidates to increase our pool of participants (Lincoln & Guba, 1985). Our final sample consisted of 21 experienced practitioners representing nine organisations, including 19 participants employed directly by insurance companies, one participant working for a large consultancy directly involved with insurers, and one contract IT project specialist with extensive experience working with and for insurers, as well as across other sectors. Participants occupied various positions, including C-suite executives, executive leadership team members, digital project/team leaders, digital/system architects, and upper-middle management. Participants brought substantial professional experience across insurance, technology, digital transformation, and related leadership roles. They were selected for their involvement in, or influence over, digital transformation initiatives and their ability to provide informed perspectives on organisational tensions and transformation practices.

While recruitment began within the first author's professional network, we sought variation across professional roles, organisations, and transformation experiences to broaden the range of perspectives represented and reduce the potential influence of network-based recruitment. The inclusion of highly experienced participants enabled comparisons across their accounts of past and current digital transformation initiatives, providing insights into how organisational tensions and responses may have changed over time (Chapter 3: Table I: Interview participant list). Participants* represented a range of organisational and functional perspectives within the insurance sector, including technology, strategy, operations, customer experience, and transformation leadership. The broader organisational contexts and digital transformation initiatives represented across the thesis are detailed in Chapter 3.

* The 21 participants included in this manuscript form a subset of the overall study sample.

4.4.3. Data Collection

We conducted open-ended, semi-structured interviews in English, and the first author facilitated the distribution of study invitations. Interested individuals were invited to contact the research team, and after participants reviewed the information sheet and agreed to contribute, we scheduled their interviews and ensured consent forms were completed before the interview. We informed all participants of the purpose of the study, assured them that their identities and organisational affiliations would be treated confidentially, and created an atmosphere that encouraged open, two-way communication (Shaughnessy & Zechmeister, 1985). The interview guide, initially developed from a literature review and insights from Phase 1, was refined as the study progressed based on earlier interviews.

Interviews began with warm-up questions to build rapport and gather contextual information about participants' roles, responsibilities, the digital transformation projects they had been involved in, and the digital systems used within their organisations. Participants discussed their views on digital transformation, the difficulties of keeping old systems running and adding new features to meet the changing needs of the insurance industry, with a focus on how modernisation and traditional workflows work together. Discussions also covered stakeholders' roles, decision-making processes, and outcomes related to digital transformation initiatives. We explored tensions between established processes and innovation, strategies for navigating these conflicts, resource allocation management, and metrics for measuring the success of digital transformation projects. Interviews lasted 60 to 100 minutes and were conducted mostly online via Teams, except for three face-to-face sessions.

Across the 21 interviews, recurring patterns were identified in participants' accounts of the tensions and organisational responses associated with digital transformation. The developing themes were periodically discussed with the research supervisors to consider whether subsequent interviews introduced substantively new insights. Later interviews increasingly elaborated existing patterns rather than introducing fundamentally new categories, supporting the assessment that the insurance-focused dataset was sufficiently developed for the study's analytical purposes. During data collection, the developing themes were reviewed with the research supervisor to assess whether subsequent interviews continued to introduce substantively new insights. As similar themes and responses recurred, this process supported an

assessment of thematic saturation within the insurance sample. All interviews were audio-recorded, yielding 214 single-spaced pages of verbatim transcripts.

4.4.4. Data Analysis

We employed thematic analysis using abductive logic, involving iterative engagement with empirical observations, emerging insights, and relevant literature (Dubois & Gadde, 2002), with paradox theory providing the principal conceptual lens. We compared the preliminary findings with existing digital transformation literature and organisational tensions to refine and complement emerging interpretations. This iterative process enabled us to move between empirical observations and existing theoretical concepts, particularly paradoxical tensions and DE, while refining our interpretation of the organisational responses identified in the data (Table IV).

The analysis began with a thorough reading of interview transcripts to develop familiarity with participants' accounts of digital transformation. We then identified first-order codes reflecting how practitioners described tensions between maintaining established systems and processes and pursuing digital innovation. Examples included maintaining critical systems, introducing API layers to support incremental change, modernising core infrastructure, and adopting experience-led approaches to transformation. Through constant comparison, we examined similarities and differences across these accounts and grouped related first-order codes into broader second-order themes (Miles & Huberman, 1994). These themes reflected recurring organisational responses to the tradition–innovation paradox and informed the development of four descriptive transformation logics (*Operational Continuity, Incremental Adaptation, Foundational Modernisation*, and *Dynamic Reimagining*). We subsequently interpreted these patterns through paradox theory, particularly the concept of DE, to develop a prescriptive account of potential mechanisms through which organisations may navigate persistent tensions. This abductive movement between empirical patterns and theoretical interpretation informed the development of the two complementary typologies.

The first author undertook the initial coding and analytical development, with both research supervisors providing periodic review and discussion of the emerging interpretations. The supervisors read approximately five verbatim interview transcripts and reviewed the developing codes and interpretations at intervals of approximately four interviews during data collection. The evolving codebook was also discussed and refined through multiple supervisory meetings before

preparation of the first manuscript draft. During regular discussions, we compared emerging themes, questioned their meanings, and considered alternative interpretations. This approach was appropriate because our aim was to develop and refine theoretically informed interpretations rather than achieve identical coding or full consensus (Malterud, 2001).

To enhance the trustworthiness of the analysis, we drew on secondary data, comparisons across participants, and ongoing researcher dialogue (Lincoln & Guba, 1985). First, we incorporated secondary data from Phase 1 to contextualise and enrich the findings wherever possible. Second, we compared perspectives across participants with diverse roles and backgrounds to identify patterns and variations in industry practices, major initiatives, and managerial decisions. Finally, ongoing supervisory discussions provided opportunities to challenge emerging interpretations and consider alternative explanations throughout the analytical process. Appendix 6 provides an illustrative coding structure and supporting analytical examples informing the development of the descriptive typology. The progression from interview excerpts through first-order codes, second-order themes, and theoretical interpretations is illustrated in Chapter 3 (Table II). Table IV complements these examples by summarising the analytical descriptors and transformation logics informing the four descriptive typology positions.

Table IV: Illustrative analytical progression informing the descriptive typology

Illustrative First-Order Descriptors	Typological Interpretations	Descriptive Typology Position
'Maintain critical systems,' 'Prioritise stability,' 'BAU maintenance'	Operational Continuity Logic	Quadrant 1: Operational Continuity
'API layers on top,' 'Targeted departments,' 'Minimise disruption'	Tactical Modularisation	Quadrant 2: Incremental Adaptation
'Automate end-to-end,' 'Systematic tech upgrade,' 'Micro-services'	Strategic Core Modernisation	Quadrant 3: Foundational Modernisation
'Experience-led design,' 'Disregard status quo,' 'Customer-centric shift'	Transformative Ecosystem Reimagining	Quadrant 4: Dynamic Reimagining

4.5. Findings

This section begins by contextualising the insurance industry's unique challenges and opportunities in digital transformation, based on insights from Phase 1. These include legacy system constraints, regulatory pressures, and a traditionally risk-averse culture, all of which amplify the tension between stability and innovation, a central concern of paradox theory. By foregrounding these challenges, we illustrate how contextual conditions in regulated service environments, such as insurance, can intensify intra-organisational paradoxes and increase the need for ongoing responses to competing demands. In response to this tension, a descriptive typology is presented, categorising current approaches to digital transformation into four strategic types: *Operational Continuity*, *Incremental Adaptation*, *Foundational Modernisation*, and *Dynamic Reimagining*. This typology provides a systematic framework for understanding how insurers respond to the tradition–innovation paradox in practice while managing competing short-term operational imperatives and long-term transformation objectives. Building on this descriptive foundation, a prescriptive typology is introduced that integrates paradox theory and the concept of DE. The prescriptive framework identifies potential transitional pathways for managing persistent tensions during digital transformation, offering a theoretically informed account of how insurers may move between typological positions through organisational mechanisms that support ongoing paradox navigation. Together, these findings illustrate how contextual frictions influence strategic responses and how practices such as targeted experimentation, cross-functional collaboration, and modular architectures may support organisational efforts to navigate persistent tensions.

4.5.1. Industry Insights

The New Zealand insurance industry finds itself at a pivotal moment, navigating a paradox of maintaining legacy systems while pursuing digital transformation. Established systems, regulatory compliance, and operational routines support continuity and reliability, while also reinforcing existing approaches to managing operational risk. On the other hand, a growing imperative for innovation demands comprehensive adoption of digital technologies, cultural shifts toward agility, and customer-centric transformations. This tension is further compounded by recent natural disasters, such as the Christchurch and Kaikoura earthquakes, the Auckland Anniversary floods, and Cyclone Gabrielle, driving up claim volumes and reinsurance costs, straining resources and profitability. These pressures have contributed to a challenging operating

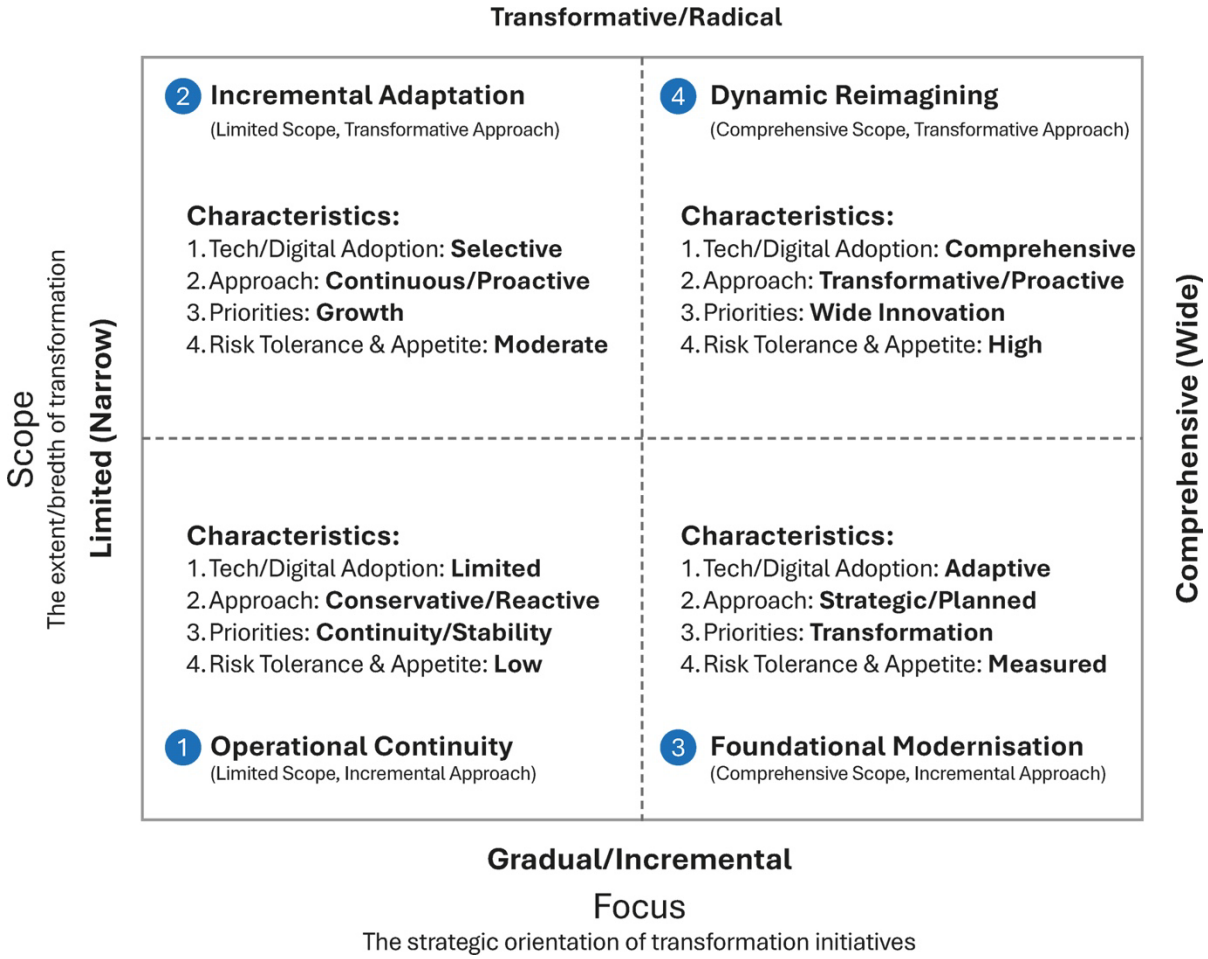
environment in which insurers must balance investment in digital transformation against financial, regulatory, and operational priorities. Legacy systems, central to daily operations, exacerbate these challenges by limiting technical agility, requiring costly maintenance, and hindering large-scale innovation. Regulatory compliance obligations, such as IFRS 17 and local prudential requirements, further complicate modernisation efforts, as manual processes create inefficiencies and divert resources from transformative initiatives.

Despite these barriers, the global rise of InsurTech highlights the potential for market disruption, even in smaller markets like New Zealand, where established insurers dominate. While some insurers adopt short-term solutions, such as adding modern digital interfaces to outdated systems, these incremental changes may improve customer-facing capabilities while leaving underlying organisational and technological constraints largely unchanged. This tradition–innovation paradox, amplified by the industry's conservative culture, presents an opportunity for insurers to reassess their strategic approaches, balancing continuity with transformative innovation. These contextual insights ground the typology in the industry's operating conditions and provide the foundation for the Phase 2 findings presented in the following section.

4.5.2. Descriptive Typology of Digital Transformation Types

Drawing on our data and guided by paradox theory, we developed a descriptive typology to detail current digital transformation strategies (Figure VI). This typology reflects variation in digital transformation efforts and illustrates how insurers navigate the persistent tension between tradition and innovation through different strategic responses that may support or constrain ongoing efforts to sustain DE. The descriptive typology provides a framework for understanding digital transformation journeys by highlighting the varied approaches insurers are taking to address inherent tensions, including ageing legacy systems, regulatory pressures, resource allocation, and evolving customer expectations. Our typology defines four strategic types of digital transformation responses mapped along two key dimensions: the scope of transformation (limited vs. comprehensive) and the focus (incremental vs. transformative). These types provide a structured way to conceptualise how insurers manage the tension between tradition and innovation (Figure VI).

Figure VI: Descriptive typology of digital transformation types



Source: Author's own

The *Scope* dimension captures the organisational breadth of digital transformation initiatives, ranging from targeted changes to specific systems within isolated business units to comprehensive transformations that encompass multiple layers of the organisation. At the comprehensive end of the dimension, transformation may involve restructuring workflows, processes, and technological infrastructure across multiple business units and functions. This dimension distinguishes initiatives confined to selected functions or systems from broader organisational changes requiring coordination across multiple business units and processes.

Focus represents the strategic approach insurers adopt to navigate the tension, encapsulating the overall mindset, priorities, and practices that shape their business model. The strategic responses to digital transformation initiatives or digitally driven change projects vary widely. A conservative, predominantly traditional approach prioritises stability and the preservation of core systems through selective, incremental practices to ensure operational continuity. At the other end of the spectrum is a more transformative restructuring effort, where

innovation is embraced and applied not only to the adoption and implementation of new tech but also to the adoption of new products, ways-of-working, business processes, and company structure.

The descriptive typology identifies four key characteristics, *Tech/Digital Adoption*, *Approach*, *Priorities*, and *Risk Tolerance & Appetite*, that evolve across each quadrant. These characteristics reflect how insurers' strategies and decision-making processes vary by position within the typology. Importantly, the dimensions distinguish the organisational breadth of transformation from its strategic orientation: a transformative approach may remain limited to selected functions, while comprehensive modernisation may proceed through gradual, planned change. For example, while legacy systems pose operational constraints in the *Operational Continuity* quadrant, they present opportunities for modular modernisation in *Foundational Modernisation*. Table VI illustrates the progression from first-order codes to second-order themes and descriptive typology positions, while Table VI provides examples of participant accounts and their associated interpretations.

Operational Continuity centres on stability as the cornerstone of the strategic efforts and decisions. Operational reliance on legacy systems and strategies that prioritise business-as-usual (BAU) manifests the approach. Insurance companies adopt a conservative approach to organisational focus, maintaining their existing monolithic systems with minor updates. This approach is evident in responses that refer to entrenched operational interdependencies: "*Prioritising stability over upgrades for critical systems to manage change (P21)*". Tech/digital adoption typically concentrates on operational maintenance, allocating limited resources to digital change initiatives. Research participants emphasised that organisations often prioritise stability over disruptive innovation, especially when discussing resource allocation. Change initiatives are minimal and focused on 'necessary' updates only, reflecting the industry's inherent risk aversion, and are further constrained by regulatory obligations that some participants perceived as constraining the scope and pace of innovation. This perspective was reflected in P2's account, which conveyed an "*if it ain't broke, why fix it*" attitude towards replacing functioning legacy systems, illustrating the limited impetus for change when established systems continued to meet operational and regulatory requirements. Further, a conservative approach to change limits the scope of transformation initiatives in an effort to minimise disruption to established operations. Stability is, in part, driven by this low impetus for change, where a perception exists

that there is no need to change. Another participant highlighted this sentiment, stating, "*Stable legacy systems lead to questioning need for change* (P5)". In summary, factors such as resource constraints, the continued profitability of some products/books-of-business, prioritisation tensions, and a traditional mindset within leadership groups all contribute to a stability-driven, risk-averse environment.

Incremental Adaptation refers to targeted digital change initiatives through which incumbent organisations selectively implement new capabilities within specific departments or operations. Although limited in organisational scope, these initiatives reflect a more proactive and transformative strategic orientation within the areas targeted for change. Organisations may retain core legacy systems while introducing modular components or microservices to develop new capabilities, support growth, and minimise disruption to wider operations. This is reflected in responses such as *"Modularising a monolithic legacy system by building API layers on top to enable flexibility in the front-end experience" (P19)*. This focus addresses tech/digital adoption, with implementation limited to specific business areas to minimise disruption. Participants further emphasised the resource constraints that shape this approach, noting the "*tension between allocating resources to BAU maintenance vs. building new capabilities* (P17)." Similarly, another participant explained that "*having finite resources and dealing with regulatory pressures forces organisations to make trade-off decisions on legacy investments* (P18)." These challenges, described in Phase 1, were echoed by participants as they reflected on insurers' investment challenges. This *Incremental Adaptation* theme acknowledges the need for change while prioritising stability, as evidenced by its limited scope and minimal organisational disruption. For instance, claims handling may become more customer-centric through a layered approach in which a modern graphical user interface (GUI) or customer-facing web layer is introduced while underlying core systems remain largely unchanged.

Foundational Modernisation refers to digital transformation initiatives characterised by comprehensive organisational scope and a gradual, strategically planned approach to change. Rather than pursuing radical transformation, organisations undertake systematic modernisation of core systems, processes, and capabilities, balancing longer-term transformation objectives against the costs and risks associated with replacing established infrastructure. The modernisation term featured heavily in the interview responses, either explicitly stated or implied, highlighting a recognition of the need for innovation and agility. Participants described the

changes as part of a broader, long-term strategy with roadmaps designed to modernise core systems, processes, and new ways of working. For instance, micro front-ends and services (APIs, cloud modules) make systems modular. This involves systematically adopting new technologies and progressively modernising core technological capabilities to support future growth and flexibility. A participant encapsulated this focus: "*Aiming to automate and digitise the full end-to-end process to enable straight through processing (P7)".* Unlike *Incremental Adaptation*, where modular solutions are introduced within selected functions, *Foundational Modernisation* involves a broader commitment to renewing core capabilities and coordinating change across multiple organisational functions.

This quadrant's scope involves more of the organisation, where modernisation efforts affect the way leadership implements change, and company practices move towards a more innovative way of working, being more cross-functional and collaborative for business units. Participants emphasised the potential of API-driven architectures and microservices to incrementally break down monoliths and make organisations nimbler. As one participant explained, "*Starting to introduce the concept of micro front-ends for more modular front-end developmen*t (P8)." Another noted, "*Some organisations have chosen to break down legacy replacement work into smaller phases due to the scale of investment required* (P18)." While the opportunities for APIs in distribution were acknowledged, caution was emphasised against taking decoupling too far and over-architecting solutions, emphasising the need for a balanced approach as mentioned by one participant: "*Adopting a strategy to decouple the front-end digital experience from back-end legacy systems (P10).*"

Finally, *Dynamic Reimagining* represents an aspirational strategic orientation characterised by comprehensive, organisation-wide transformation. This approach challenges traditional norms, reimagines core processes, and embraces high-risk tolerance to foster innovation and agility as a modus operandi, embedding innovation into the organisational fabric through iterative experimentation and cross-functional collaboration. In other words, the traditional approach is reimagined to accommodate new tech in a disruptive manner, with the status quo somewhat disregarded in favour of an innovation-first ethos. As a participant aptly described: "*Taking an experience-led design approach, building what great CX looks like, rather than being constrained by systems. (P6)*". This transformative orientation reflects an ambition to challenge conventional structures and reorient insurance organisations towards more sustained innovation. Interview

responses articulated a desire to innovate, but the organisation's ability to implement innovative solutions is lacking. For instance, some participants highlighted efforts such as "…*trying to homogenise products and processes as much as possible (P6)*".

The responses showed a certain desire to be a digitally innovative company, but were constrained by legacy systems, resource allocation issues, or a low impetus for change. As another participant explained, "…*recognising a shift needed from being policy-centric to customer-centric to unlock new capabilities (P19)*". This scenario highlights a push towards innovation, but certain constraints lead to an 'either/or' strategic trade-off. Within the interview accounts, *Dynamic Reimagining* was expressed more often as a strategic aspiration than as a fully realised organisational configuration. It therefore represents an ideal-typical orientation towards transformation rather than evidence that participating insurers had comprehensively achieved this position. Table V provides illustrative examples of participant accounts and their associated interpretations across the four typological positions.

Table V: Illustrative participant accounts and analytical interpretations

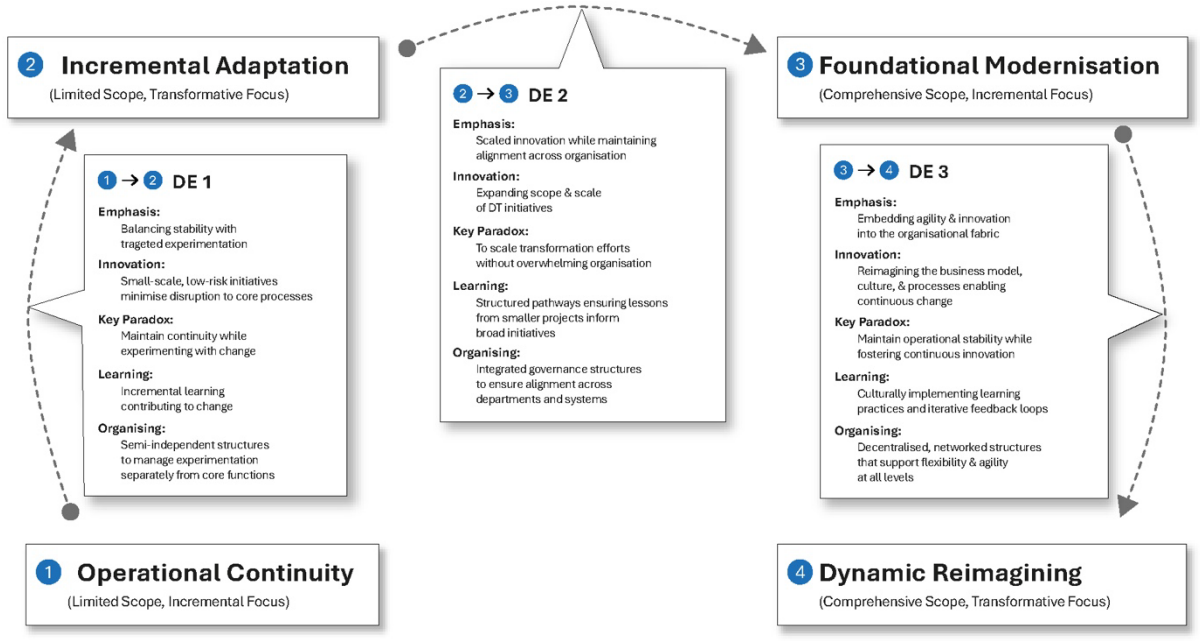
Theme	Paraphrased Participant Account	Interpretation
Operational Continuity	If it ain't broke, why fix it? (P2)	Resistance to change based on perceived reliability of existing systems
	Stable legacy systems lead to questioning need for change. (P5)	Stability fosters inertia
Incremental Adaptation	Modularising a monolithic legacy system by building API layers on top to enable flexibility in the front-end experience. (P19)	Tactical workaround to modernise without full transformation
	Tension between allocating resources to BAU maintenance vs. building new capabilities. (P17)	Competing priorities limit transformation scope
Foundational Modernisation	Aiming to automate and digitise the full end-to-end process to enable straight through processing. (P7)	Strategic intent to modernise core operations
	Starting to introduce the concept of micro front-ends for more modular front-end development. (P8)	Initiating tech-enablement with cautious scope
Dynamic Reimagining	Taking an experience-led design approach, building what great CX looks like, rather than being constrained by systems. (P6)	Prioritising customer value over legacy limitations
	Recognising a shift needed from being policy-centric to customer-centric to unlock new capabilities. (P19)	Service logic shift driving transformation ambition

The descriptive typology illustrates how insurers adopt different strategic responses to the persistent tension between tradition and innovation. These responses vary in their transformation scope, strategic focus, risk tolerance, and approaches to digital adoption. While *Operational Continuity* emphasises the preservation of existing systems and processes, *Incremental Adaptation* introduces selective digital capabilities without fundamentally changing core operations. *Foundational Modernisation* involves broader renewal of organisational capabilities, whereas *Dynamic Reimagining* reflects a more comprehensive ambition to reconfigure business models, processes, and customer experiences. These positions illustrate different ways in which insurers navigate competing demands for stability and innovation rather than a predetermined sequence of organisational development. Building on this descriptive foundation, the following section introduces a prescriptive typology of potential pathways and mechanisms through which insurers may respond to these enduring tensions.

4.5.3. Dynamic Transitions and Tensions

Building on the descriptive typology, we develop a prescriptive framework (Figure VII) that identifies potential pathways through which insurers may navigate the tradition–innovation paradox. Rather than representing a fixed sequence of organisational development, these pathways illustrate how organisations might recalibrate their responses to competing demands for stability and innovation as transformation priorities and conditions change. Drawing on paradox theory, particularly the concept of DE, the framework identifies organisational mechanisms that may support ongoing tension management across different typological positions. The prescriptive typology therefore offers a theoretically informed interpretation of possible transitions rather than a representation of longitudinally observed organisational progression.

Figure VII: Prescriptive typology integrating DE and Learning-Organising paradoxes



Source: Author's own
Note: The pathways represent theoretically informed possibilities rather than a prescribed or empirically observed sequence of organisational development.

The prescriptive typology illustrates how insurers may respond to the tradition–innovation paradox without treating stability and innovation as mutually exclusive. The proposed pathways highlight the potential role of incremental experimentation, broader capability renewal, and organisational reconfiguration in navigating persistent tensions. These responses also involve *Learning* and *Organising* paradoxes, as organisations seek to develop new capabilities while

retaining established knowledge and introduce more adaptive structures without undermining operational continuity. From this perspective, DE is enacted through ongoing adjustments to competing demands rather than achieved through progression towards a predetermined organisational end-state. The three pathways are presented as potential organisational responses to recurring tensions, with their associated mechanisms interpreted abductively from practitioner accounts and paradox theory rather than established as sequential stages of transformation. DE is therefore reflected in the organisational responses used to manage persistent tensions, whether within a typological position or during potential movement between positions, rather than in the transition itself.

DE 1: Transitioning from *Operational Continuity* to *Incremental Adaptation*

Insurers in the *Operational Continuity* quadrant often face resistance to change due to entrenched organisational cultures, resource constraints, and regulatory pressures. One potential pathway towards Incremental Adaptation involves prioritising targeted innovation initiatives that demonstrate practical benefits while maintaining core operational stability. This could entail incremental, specific digitisation efforts that automate and optimise existing processes without disrupting core operations. The *Learning* and *Organising* paradoxes play a key role in this transition. The *Learning* paradox manifests as organisations integrate new digital practices while relying on long-standing operational routines. The *Organising* paradox surfaces as firms introduce new structures for innovation while preserving existing hierarchical frameworks. One potential response involves creating semi-independent spaces for experimentation, allowing new digital capabilities to be tested without immediately disrupting established operational processes. Learning from these initiatives may then inform subsequent decisions about broader implementation. These responses may enable insurers to draw on established organisational knowledge while developing new digital capabilities. For example, some insurers have introduced digital self-service portals to streamline policy management and claims lodgement. Such initiatives may offer opportunities to improve processing efficiency and customer convenience while leaving core underwriting and policy administration systems intact. Demonstrating the potential benefits of digitalisation within selected functions may help organisations address internal resistance and build support for broader transformation efforts.

DE 2: Transitioning from *Incremental Adaptation* to *Foundational Modernisation*

The transition expands digital transformation initiatives beyond isolated projects to include organisation-wide modernisation efforts. This involves not only an expansion in organisational scope but also a recalibration of strategic focus, from relatively transformative initiatives within selected functions towards a more gradual, planned approach to organisation-wide modernisation. This shift reflects the need to coordinate broader change while maintaining operational reliability. Instead of siloed digital improvements, firms integrate cross-functional teams, scalable digital architectures, and collaborative governance models to drive systemic change. The *Learning* and *Organising* paradoxes are critical during this transition. *Learning* tensions arise from scaling smaller innovations into broader transformation efforts, requiring internal stakeholders to adapt beyond their immediate functions. *Organising* tensions emerge as organisations break down silos, introduce agile workflows, and establish new operating models that integrate technology across multiple business units.

A potential response involves establishing structured pathways through which lessons from smaller digital initiatives inform broader modernisation programmes, supported by integrated governance arrangements that coordinate priorities and resource allocation across organisational functions. Participants described approaches to broader modernisation that involved integrating previously fragmented systems and introducing API-driven architectures to connect new digital capabilities with established infrastructure. These approaches illustrate how phased modernisation may allow organisations to extend digital initiatives across functions while managing the risks associated with large-scale system replacement. By layering API-driven architectures over legacy systems, insurers can introduce agile, scalable technologies without fully replacing their existing infrastructure. This allows insurers to scale digital innovation while retaining stability in critical operations such as underwriting and risk assessment.

DE 3: Transitioning from *Foundational Modernisation* to *Dynamic Reimagining*

This transition represents a fundamental reimagining of the firm's business model, culture, and operational structure. The change marks a shift from gradual digital transformation to enterprise-wide agility, where innovation is embedded into the organisation's fabric rather than treated as a separate initiative. Unlike the preceding pathways, this transition is more strongly represented in the data as a strategic aspiration than as an observed, completed transformation. It therefore illustrates the organisational conditions and potential mechanisms that may support

a more comprehensive reimagining of service processes, business models, and customer experiences. Participants' accounts highlighted ambitions to move beyond technology-led modernisation towards more customer-centric and digitally integrated operating models. These ambitions included rethinking established product and service processes, improving the integration of customer information, and exploring opportunities to develop new capabilities through digital platforms and external partnerships. Such approaches may support broader organisational reconfiguration, but their contribution depends on corresponding changes in governance, organisational routines, and cross-functional collaboration. Potential mechanisms include embedding iterative learning and feedback practices into everyday organisational routines and developing more decentralised, networked arrangements that support innovation across functions while retaining appropriate operational oversight. The proposed pathway therefore represents a potential shift in strategic orientation and organisational arrangements rather than evidence that participating insurers had completed a transition to *Dynamic Reimagining*.

Persistent tensions between tradition and innovation underscore the journey across quadrants. *Operational Continuity* prioritises trust and stability but limits experimentation and agility. Conversely, *Dynamic Reimagining* requires higher risk tolerance and a willingness to disrupt traditional processes. By adopting a paradoxical mindset, insurers can avoid treating stability and innovation as mutually exclusive and instead acknowledge their interdependence. Some insurers leverage their long-standing expertise in risk management while adopting real-time customer engagement platforms, illustrating how stability and innovation can coexist. The proposed transitions are illustrative rather than inevitable or unidirectional. Organisations may adopt different positions across business functions, remain within a particular position while recalibrating their responses, or revisit earlier approaches as regulatory, technological, and organisational conditions change. Ultimately, the prescriptive typology offers a structured way for insurers to consider potential responses to persistent tensions, using paradox theory to inform ongoing adjustments between operational continuity and digital innovation.

4.6. Discussion and Implications

4.6.1. Theoretical Implications

This research demonstrates that traditional hierarchical and siloed models in many established insurance organisations are poorly suited for managing paradoxical tensions because they reinforce an *either/or* mindset that impedes integration and adaptability. Using paradox theory, we define *Learning* paradoxes as the tensions that arise between acquiring new capabilities and relying on established routines, while *Organising* paradoxes refer to the struggle to balance flexibility with structural stability. Building on established research into intra-organisational paradoxes, this study examines how Learning and Organising tensions manifest within established insurance organisations undergoing digital transformation, particularly where regulatory obligations, legacy infrastructure, and competing innovation priorities shape organisational responses. We also show how leveraging these tensions can lead to DE, thereby influencing an organisation's ability to maintain stability while adapting to change over time.

First, the prescriptive typology bridges theory and practice, offering a conceptual guide for insurers seeking to navigate paradoxical tensions while pursuing innovation, organisational learning, and sustainable performance. The contribution of the dual typology lies in connecting four empirically grounded strategic orientations towards tradition–innovation tensions with theoretically informed pathways through which insurers may recalibrate their responses to these tensions. This extends the application of paradox theory to digital transformation by distinguishing how organisations are positioned in relation to competing demands from the mechanisms through which they may pursue DE over time. This paper contributes to paradox theory by offering an intra-organisational explanation of how DE may be enacted through mechanisms that enable organisations to navigate persistent tensions between tradition and innovation. The prescriptive typology illustrates theoretically informed pathways through which organisations might recalibrate their strategic positioning, rather than representing empirically observed stages of organisational development (Dmitrijeva et al., 2021). While our typology identifies a dominant transformation logic, the data reveal that paradoxes often coexist across different functional levels. For instance, an insurer may exhibit *Dynamic Reimagining* in front-end customer experience while simultaneously maintaining *Operational Continuity* for back-end legacy underwriting to ensure regulatory compliance. Utilising paradox theory, this research postulates that moving beyond *either/or* thinking and embracing a paradoxical mindset enables

insurers to transcend the trade-off between stability and change, seeking instead to leverage the benefits of both. The prescriptive typology elaborates the application of DE (Smith & Lewis, 2011) to insurance-related digital transformation by identifying potential pathways and associated organisational mechanisms through which insurers may continually manage competing demands for operational stability and innovation.

Second, the Learning paradox concerns an inherent tension between exploration (acquiring new knowledge, skills, and competencies required for digital transformation) and exploitation (leveraging existing internalised knowledge and skills). For instance, transitioning from a traditional mindset to a 'digital way of thinking' requires not only new technical skills but also a shift in decision-making norms and communication practices during the digital transformation process. Conceptually, this tension manifests as a shift from an either/or mindset to a both/and mindset, where short-term exploitation of existing knowledge complements long-term exploration and innovation. The findings elaborate the relationship between *Learning* and *Organising* paradoxes by illustrating how organisational arrangements adopted during digital transformation, including modular approaches and cross-functional teams, can enable or constrain the development and integration of new capabilities. This highlights how responses to structural tensions may simultaneously shape organisations' capacity to navigate tensions between established knowledge and emerging digital practices. The descriptive typology illustrates how insurers remain constrained in quadrants such as *Operational Continuity* due to skill gaps and cultural resistance, while the prescriptive typology highlights pathways to transition from legacy systems to modular architectures, requiring firms to exploit existing expertise while exploring new ways of working. This dual focus not only resolves tensions but also facilitates DE by simultaneously addressing immediate goals and long-term transformation objectives.

Third, this research elaborates the *Organising* paradox in the context of insurance digital transformation by identifying how modular architectures and ambidextrous organisational arrangements may support the ongoing management of tensions between operational continuity and innovation. Within the insurance industry, this paradox is particularly salient, as organisations must maintain operational continuity while introducing innovative processes that foster adaptability. For example, modular architectures and API-driven integrations allow insurers to stabilise core operations while incrementally introducing more agile and customer-centric solutions. These results further support ambidexterity theory by showing that architectural

strategies are not merely technical decisions but mechanisms through which organisations manage paradoxical demands. By accommodating exploratory and exploitative activities in tandem, insurers may develop forms of structural and processual ambidexterity that support the ongoing management of paradoxical tensions. The challenge lies in creating integrative mechanisms that align these competing objectives, such as adopting separate structures for traditional operations and innovation projects while fostering collaboration and knowledge exchange across the organisation. Through dynamic capabilities such as the ability to rapidly adapt processes, reallocate resources, and learn from iterative experimentation, organisations can resolve the *Organising* paradox and support both short-term efficiency and long-term transformation (Smith & Lewis, 2011).

Finally, this research elaborates the application DE digital transformation in an insurance context by identifying potential organisational pathways through which persistent tensions between stability and innovation may be managed. Building on established paradox research concerning the ongoing management of competing demands (Smith & Lewis, 2011) and recognising related applications in contexts such as coopetition (Benitez et al., 2022), the prescriptive typology highlights how internal coordination mechanisms, adaptive leadership, and paradox reframing practices may support the pursuit of DE within established insurance organisations. Our prescriptive typology identifies potential pathways through which organisations may recalibrate their responses to paradoxical tensions, while DE refers to the ongoing management of competing demands across structural, cultural, and strategic dimensions. Specifically, pursuing DE for insurers involves reframing persistent tensions such as resource allocation conflicts, skill gaps, and legacy constraints, not as strategic trade-offs but as interconnected forces requiring ongoing and active management. For instance, accepting tensions as a normal feature of complex systems enables organisations to adopt adaptive strategies, viewing resources as abundant in the long term while making temporary trade-offs in the short term. This perspective encourages resilience and agility by shifting from a defensive stance to a constructive engagement, in which paradoxes are seen as opportunities for growth and transformation. This extends the recent digital transformation literature (Svahn et al., 2017; Majchrzak et al., 2016), which has called for a greater understanding of how organisations manage paradoxes over time.

In developing complementary descriptive and prescriptive typologies, this research provides an intra-organisational perspective on digital transformation that is particularly relevant to established service industries such as insurance, where internal coordination demands interact with regulatory obligations, technological change, and evolving customer expectations. For example, insurers frequently face organisational resistance to transformation not only at the leadership level but also across business functions, where conflicting priorities create inertia. Our research clarifies how paradox theory applies within firms, showing that transformation resistance can be addressed through balancing competing tensions over time. This approach institutionalises innovation without compromising core stability, highlighting DE as a continuous process rather than a static result.

Embedding learning and adaptive organising principles may enable insurers to engage more constructively with persistent paradoxical tensions, creating opportunities for innovation while attending to the continuing demands of operational stability. These insights extend the paradox literature by illustrating how service-oriented firms with entrenched legacy systems can move beyond strategic dichotomies (e.g., tradition OR innovation) and adopt a both/and mindset. This theoretical contribution bridges gaps in current research, particularly by contextualising the tradition–innovation tensions within a highly regulated, risk-averse industry such as insurance. Through the interplay of *Learning* and *Organising* paradoxes and the pursuit of DE, insurers can navigate the complexities of digital transformation while fostering sustainable performance, long-term innovation, and adaptability in an evolving market landscape.

4.6.2. Practical Implications

Our findings demonstrate that resolving the tradition–innovation paradox requires a strategic approach centred on incremental innovation, cross-functional collaboration, and iterative change management. Insurers should reframe digital transformation not as a discrete or siloed initiative but as an opportunity to reimagine core models, organisational structures, and cultural norms. Embedding innovation in the organisation's core structure, rather than treating it as a peripheral technology project, shifts firms from short-term fixes to long-term, sustainable transformation. For example, transitioning from a policy-centric to a customer-centric model can reorient strategic priorities around delivering value through seamless, data-driven customer experiences, rather than around internal process logic.

To navigate the *Organising* paradox, insurers must implement structures that allow the simultaneous pursuit of stability and change. This includes modularising legacy systems via cloud platforms and API-driven integrations, thereby separating core processes from customer-facing innovation layers. These layered architectures preserve system continuity while enabling flexibility, supporting compliance and internal assurance needs, and permitting scalable experimentation. For instance, digitising non-complex claims or deploying self-service portals can yield cost savings and an improved user experience without necessarily needing a full core system replacement. This phased approach represents a practical mechanism for progressing along the typological pathways outlined in our prescriptive framework.

Organisational agility and adaptive capability are vital for maintaining transformation efforts. Embedding governance structures such as cross-functional agile squads, innovation leads, or transformation managers supports quick, responsive decision-making during times of disruption or regulatory change. Scenario planning, risk modelling, and transformation roadmaps, when aligned with typological stages, help insurers visualise and manage transition challenges. Over time, this agility can develop from isolated project teams into embedded skills spread throughout the organisation. These capabilities directly support DE by balancing short-term control with long-term transformation capacity.

Managing the *Organising* paradox requires structured solutions that enable firms to balance tradition and innovation simultaneously. Ambidextrous strategies, such as dedicated innovation teams or transformation managers working alongside operational units, allow organisations to pursue disruptive and innovative initiatives while maintaining compliance and business continuity. The success of these approaches depends on mechanisms that promote cross-team collaboration and knowledge exchange. A phased modernisation strategy, using modular architectures and cloud-based technologies, reduces the risk of system failures and enables a controlled adoption of new capabilities. Additionally, fostering a culture of continuous learning prepares employees to handle evolving demands by combining technical reskilling with more collaborative, agile ways of working.

Finally, ecosystem partnerships enable insurers to boost innovation without overburdening internal resources. In smaller markets like New Zealand, collaborating with InsurTechs or digital solution providers enables firms to trial AI-powered claims systems, real-time data platforms, or personalisation engines while maintaining their current infrastructure and brand trust. These

partnerships serve as catalysts by expanding digital capabilities while avoiding internal resistance or disruption to existing architecture. Over time, such relationships can develop into wider innovation ecosystems that connect technology vendors, regulators, and established players into responsive service networks capable of adjusting to volatile market conditions.

From a practical perspective, insurers can use the descriptive typology as a strategic gauge to evaluate their position in the transformation journey, while leveraging the prescriptive typology to identify feasible next steps. By adopting ambidextrous structures, architectural agility, and paradox-friendly leadership models, insurers can turn internal tensions into strategic assets. Through this intentional alignment of structure, culture, and capability, firms can implement DE by maintaining operational stability while fostering transformative innovation in increasingly digital, customer-centric markets.

4.6.3. Limitations and Future Research

This research offers insights pertaining to the paradoxical tensions and complexities of digital transformation within the insurance industry. However, it is not without limitations, presenting several opportunities for future research.

Firstly, while this research draws on a rich dataset from experienced digital transformation practitioners, the responses predominantly focus on the New Zealand insurance market. Although participants' expertise extends to global insurance contexts, the findings are shaped by the unique challenges and nuances of New Zealand's regulatory environment, organisational structures, and market dynamics. This limits the generalisability of the findings to larger and more diverse markets, such as North America, China, or Europe, where regulatory, cultural, and technological contexts may vary significantly (Setzke et al., 2021). Future research could address this limitation by examining digital transformation efforts in these markets to identify similarities and differences in how paradoxes and DE manifest, particularly across varying regulatory, cultural, and technological contexts. Cross-industry studies could also yield more comprehensive conclusions by quantifying paradox management across sectors, for example, by comparing industries with rigid regulatory environments (e.g., insurance, healthcare) to more dynamic industries (e.g., technology or retail). These investigations could uncover universal patterns or sector-specific challenges in managing tensions during digital transformation.

Secondly, although single-case study research has become more popular, it is often criticised for its limitations in producing findings that can be generalised within a positivist

framework (Yin, 2018). We recognise that the industry-specific characteristics of our case in the insurance sector may not fully represent those of other industries. For example, digital transformation in the insurance industry typically involves upgrading legacy systems for improved data security and regulatory compliance, unlike retail, where it focuses on customer engagement and supply chain optimisation. Therefore, the tensions might appear differently across industries, reflecting their unique challenges and priorities in their digital transformation journeys. However, the marketing literature frequently uses a single-case design for theory building (e.g., Arvidsson & Melander, 2020; Gurca et al., 2021). Our detailed description enables us to develop theories and achieve naturalistic generalisations, allowing findings from a single case to inform digital transformation processes in similar contexts (Stake, 1995).

Thirdly, while the findings highlight challenges linked to legacy systems and regulatory constraints, they do not fully address the implications of emerging technologies such as blockchain, quantum computing, or generative AI (Sosa & Montes, 2022; Brockhaus et al., 2022). Emerging technologies could reshape the tradition–innovation paradox by allowing organisations to achieve both stability and innovation, fundamentally changing the routes to DE. For example, low-code/no-code platforms or AI co-pilots might decrease reliance on legacy systems, helping organisations transition more rapidly towards dynamic reimagining (Chawla & Goyal, 2021). Future research should examine how these technologies influence the tensions and pathways discussed in this study and evaluate their impact on achieving DE. Additionally, regular updates to the proposed typology could help it stay relevant as technological advancements continue to transform the digital transformation landscape and organisations grow more digitally mature.

Finally, the study's reliance on qualitative interviews offers rich insights but restricts the ability to quantify the links between paradoxes, tensions, and digital transformation outcomes. Future research could adopt mixed-method approaches, such as combining qualitative insights with quantitative surveys or longitudinal case studies. This approach could facilitate an investigation into whether paradox management correlates directly with measurable outcomes such as operational efficiency, customer satisfaction, or market performance. Quantifying the relationship between paradox management and digital transformation outcomes is essential for organisations aiming to assess the success of their transformation strategies (Chi et al., 2025). For instance, linking paradox management to operational efficiency or market performance

could provide decision-makers with tangible metrics to support investments in digital transformation initiatives.

Chapter 5: Value Attenuation and Bridging Operant Resources

Preface

This chapter presents Manuscript 2, titled "Value Attenuation and Bridging Operant Resources in Digital Service Coordination." The manuscript examines how internal organisational conditions shape value outcomes during digital transformation in service organisations. Drawing on qualitative analysis of practitioner interviews, it addresses the questions of how intra-organisational misalignments weaken value potential within digitally intensive service settings, and under what conditions human and AI operant resources can function as bridging resources that help perceive, interpret, and repair coordination breakdowns.

The manuscript develops the concept of *value attenuation* to explain the process through which persistent misalignments across structures, metrics, and narratives progressively weaken value-realisation capacity over time. It also examines the role of bridging operant resources, including AI-enabled systems, in supporting socio-technical coherence practices that can mitigate or intensify this process. In doing so, the chapter builds on processual perspectives of value formation within SDL by foregrounding the intra-organisational conditions through which resource integration and subsequent value realisation are enabled or constrained during digital transformation.

Myhre, C. J., Yap, S. F., Errmann, A. C. (2026). Value Attenuation and Bridging Operant Resources in Digital Service Coordination. Manuscript under review in the Journal of Service Management.

5.1. Abstract

Purpose: Despite sustained investment in digital technologies, many service organisations struggle to realise coherent, durable value outcomes. This study examines how intra-organisational misalignments progressively constrain value-realisation capacity during digital transformation and conceptualises this process as value attenuation. It further investigates how AI-enabled systems may function as bridging operant resources within coordination practices that support institutional coherence.

Design/methodology/approach: Using a two-phase qualitative design, we conducted contextual sensitising analysis of industry materials, followed by 33 in-depth interviews with senior digital transformation practitioners across multiple service sectors. The method utilised an abductive, constant-comparison analysis guided by Service-Dominant Logic generated mid-range theoretical insights.

Findings: We identify three interconnected misalignments, structural, metric, and cultural, that cumulatively constrain resource integration as institutional coherence weakens. Value attenuation captures the resulting process of progressive weakening in value-realisation capacity while service activities continue. AI-enabled systems can condition this trajectory by influencing informational, temporal, and interpretive coordination, potentially mitigating or intensifying attenuation depending on their socio-technical configuration. Across cases, four recurring socio-technical coherence practices (Shared Signals, Temporal Orchestration, Augmented Integration, and Informed Narratives) emerge as micro-foundations through which institutional coordination is enacted and recalibrated.

Originality/value: This study advances Service-Dominant Logic in three related ways. First, it develops *value attenuation* as a mid-range process concept explaining how persistent intra-organisational misalignment progressively constrains resource integration and weakens value-realisation capacity during ongoing service activity. Second, it refines SDL's treatment of technology by conceptualising AI as a contingent bridging operant resource that conditions coordination dynamics rather than directly producing value outcomes. Third, it identifies socio-technical micro-foundations through which institutional coherence is continually enacted and recalibrated in service organisations.

Keywords: Value Attenuation, Bridging Operant Resources, Digital Service Coordination, Service-Dominant Logic, Intra-organisational Misalignment, Socio-technical Coordination, Micro-foundations

5.2. Introduction

Service organisations face increasing pressure to modernise operations through technologies such as artificial intelligence (AI), advanced analytics, and platform architectures, while ensuring consistent service delivery (Vial, 2019). These technologies promise improved efficiency, responsiveness, and coordination across organisational functions. However, a persistent challenge remains in bridging the gap between implementing technology and supporting ongoing value realisation (Nadkarni & Prügl, 2020). Digital capability alone does not ensure value realisation; rather, resource integration occurs within institutional arrangements that shape the conditions under which beneficiaries may realise value (Vargo & Lusch, 2016). When internal coordination breaks down, actors' capacity to integrate resources may weaken, constraining value-realisation opportunities across interconnected service exchanges (Barrett et al., 2015). While digital transformation research often highlights customer experience and market-facing outcomes, less attention has been given to the internal coordination dynamics that shape these opportunities throughout service processes. In service organisations, the credibility and viability of value propositions depend partly on the capacity of organisational actors to coordinate resources across interdependent activities. Institutional coherence is therefore not merely an operational concern but also a marketing-relevant condition supporting the enactment of value propositions. By examining these internal coordination dynamics, this study connects organisational conditions during digital transformation with broader service marketing concerns.

Subsequently, this study draws on SDL to view organisations as nested service systems where actors combine operant and operand resources under shared institutional arrangements (Akaka & Vargo, 2015; Wilden et al., 2017). SDL treats all actors as resource integrators (Axiom 3) and holds that their integration is coordinated through actor-generated institutional arrangements (Axiom 5) (Vargo & Lusch, 2016). Although this perspective has generated significant insights into value co-creation and co-destruction across service interactions (Brodie et al., 2019), comparatively less attention has been directed towards how coordination capacity deteriorates within organisations under conditions of digital complexity. As service organisations

become increasingly technologically layered and cross-functionally interdependent, understanding how internal coordination conditions evolve becomes central to explaining variations in value outcomes. Rather than contesting SDL's core premises, this study builds on its emphasis on resource integration and institutional coordination by examining how these processes unfold within organisations during digital transformation. By directing analytical attention toward interconnected internal service exchanges, the study extends understanding of the organisational conditions that enable or constrain resource integration and subsequent opportunities for value realisation.

To address this gap, we conceptualise value attenuation as the progressive weakening of value-realisation capacity arising when persistent organisational misalignments constrain resource integration across nested service exchanges. Whereas intra-organisational misalignment describes fragmentation across structural, metric, and cultural-interpretive conditions, value attenuation captures how persistent coordination frictions may progressively constrain actors' capacity to integrate resources and facilitate subsequent value realisation. Attenuation does not itself denote a negatively experienced value outcome or necessarily culminate in value co-destruction. Rather, it concerns deterioration in the conditions supporting resource integration, while service activities may continue (Echeverri & Skålén, 2021; Alexander & Vallström, 2023). In digitally intensive service environments characterised by layered technologies, cross-functional interdependence, and evolving performance logics, persistent misalignments may accumulate and weaken coordination capacity over time. Understanding how this process develops, intensifies, or is interrupted requires attention to the socio-technical and institutional practices through which actors respond to coordination frictions.

Practitioners increasingly consider AI-enabled systems for improving visibility and coordination across organisational processes, rather than solely as substitutes for human labour. While AI has been extensively examined in customer-facing contexts (Huang & Rust, 2018; Rust, 2019), its potential role in shaping internal institutional coherence warrants further investigation. This study conceptualises AI-enabled systems as potentially performing bridging operant functions when their capabilities are configured and mobilised to support coordination among organisational actors. Through capabilities such as data aggregation, anomaly detection, and predictive analytics, such systems may help surface interdependencies, improve the visibility of organisational signals, and inform how actors interpret and respond to coordination challenges.

However, these effects are contingent on socio-technical arrangements, including human interpretation, governance, and organisational practices. AI-enabled systems may therefore support or constrain coordination by influencing informational visibility, temporal sequencing, and interpretive alignment, rather than independently generating value or resolving organisational misalignment.

Guided by this theoretical framing, we address the following research questions:

RQ1: How do intra-organisational misalignments contribute to value attenuation in digital service coordination?

RQ2: Under what conditions, and through what mechanisms, may AI-enabled systems support or constrain organisational responses to coordination breakdowns during digital transformation?

Using a two-phase qualitative design combining contextual sensitising analysis and 33 in-depth practitioner interviews, we identify three interrelated forms of misalignment (structural, metric, and cultural-interpretive) that can progressively constrain resource integration and weaken value-realisation capacity. We also identify four recurring socio-technical coherence practices (*Shared Signals, Temporal Orchestration, Augmented Integration*, and *Informed Narratives*) through which organisational actors respond to coordination frictions. Building on Manuscript 2's findings concerning organisational coordination frictions and socio-technical coherence practices, the study theorises how AI-enabled systems may support or constrain coordination by influencing informational visibility, temporal coordination, and the resources available for shared interpretation.

This paper advances SDL in three related ways by examining how persistent intra-organisational misalignment constrains resource integration, how socio-technical conditions shape this process, and how organisational actors respond to coordination frictions during digital transformation. First, we conceptualise *value attenuation* as a process through which persistent intra-organisational misalignments progressively constrain resource integration and weaken value-realisation capacity during ongoing service activity. Second, we theorise AI-enabled systems as potentially performing bridging operant functions that influence informational visibility, temporal coordination, and interpretive alignment across organisational domains. Third,

we identify socio-technical micro-foundations of institutional coherence, detailing recurring coordination practices through which actors attempt to maintain, restore, or recalibrate the conditions supporting resource integration. Collectively, these contributions extend understanding of how institutional coordination is enacted and contested within service organisations, and how its changing conditions shape opportunities for subsequent value realisation.

5.3. Theoretical Background

Within complex service systems, digital service coordination primarily involves interconnected exchanges among generic actors in actor-to-actor (A2A) relationships. This perspective necessitates viewing the organisation's interior as a nested service context in which internal coordination enables the realisation of value propositions externally (Wilden et al., 2017). Building on this premise, this section establishes the theoretical foundations of the study by reviewing intra-organisational misalignment, outlining the SDL perspective on resource integration and institutional coordination, examining limitations in existing value-outcome conceptualisations, and considering the potential role of AI as a coordinative resource within service organisations.

5.3.1. Intra-Organisational Misalignment and Institutional Friction

Service literature consistently emphasises that the most significant barriers to effective digital transformation are organisational rather than technological. Although digital capabilities continue to advance, many service organisations struggle to translate these technologies into coherent operational improvements because internal coordination often breaks down during periods of change (Vial, 2019; Nadkarni & Prügl, 2020). These breakdowns frequently manifest as intra-organisational misalignments, defined as disconnections between technological, structural, and behavioural elements that must align for effective service work (Nambisan et al., 2017).

Prior research highlights various forms of organisational friction that contribute to such misalignment. Structural and procedural tensions arise when siloed organisational boundaries, legacy system dependencies, incompatible digital platforms, and fragmented workflows disrupt information flows and hinder coordination (Leonardi, 2011; Barrett et al., 2015). Other studies emphasise interpretive and strategic inconsistencies, whereby teams pursue competing

priorities, operate under conflicting performance indicators, or develop divergent interpretations of digital transformation initiatives (Spee & Jarzabkowski, 2017). Cultural and behavioural dynamics may further exacerbate these tensions. Risk aversion, reduced psychological safety (Newman et al., 2017), and leadership practices that discourage experimentation and knowledge sharing can limit collaboration and inhibit learning during digital change (Edmondson & Lei, 2014; Heracleous & Werres, 2016). These frictions rarely occur in isolation; instead, they interact and accumulate over time, gradually weakening organisations' capacity for coordination.

Although SDL has most often been applied to inter-organisational relationships or customer-facing service interactions, its foundational premise that value emerges through coordinated resource integration provides a useful lens for understanding the internal consequences of misalignment (Vargo & Lusch, 2016). When organisational components pull in different directions, the institutional arrangements required for coordinated action begin to deteriorate. As a result, the organisation's ability to deliver value propositions and sustain consistent service delivery may weaken well before customer interaction occurs (Laud et al., 2019; Vink et al., 2020). Yet despite this relevance, SDL research has rarely examined how coordination deteriorates within organisations during periods of digital change.

Existing research, therefore, offers substantial insight into the origins of misalignment but provides less understanding of how organisations detect, interpret, and address these frictions in practice (Leonardi, 2011; Barrett et al., 2015). Relatively little is known about the micro-level coordination work through which actors attempt to re-establish alignment when institutional friction emerges (Huang & Rust, 2018; Payne et al., 2021). This gap is especially salient in digitally intensive service environments, where emerging capabilities such as AI increasingly influence coordination processes (Leonardi, 2011; Wirtz et al., 2023).

5.3.2. Resource Integration and Institutional Coordination in SDL

SDL offers a theoretical foundation for understanding why intra-organisational misalignment has significant implications for digital service work. SDL conceptualises value as emerging from the coordinated integration of resources among actors rather than as being produced by firms and delivered to customers (Vargo & Lusch, 2016). Two SDL axioms are particularly relevant in this context. Axiom 3 states that all social and economic actors are resource integrators. Actors combine operant resources, such as knowledge and skills, with operand resources, including technologies and organisational systems, to generate service outcomes. In digitally intensive

organisations, these combinations underpin the workflows through which service delivery occurs. Axiom 5 further emphasises that value co-creation is coordinated through actor-generated institutions and institutional arrangements (Vargo & Lusch, 2016). These arrangements include shared rules, norms, routines, and interpretive frames that guide coordination among actors (Pop et al., 2018). By providing stability and predictability, institutional arrangements enable actors to combine resources in ways that sustain productive service interactions (Brodie et al., 2019). When these arrangements fragment, however, coordination becomes increasingly difficult.

Viewed through this lens, internal frictions are consequential because they signal disruptions in institutional coordination that enable resource integration (Vink et al., 2020). Structural fragmentation, conflicting performance logics, incompatible technologies, and divergent strategic interpretations may all undermine the shared rules and meanings that support coordinated action (Leonardi, 2011; Barrett et al., 2015; Spee & Jarzabkowski, 2017). SDL scholars have long emphasised that when institutional arrangements lose coherence, resource integration becomes strained or incomplete (Vargo & Lusch, 2016; Brodie et al., 2019; Kaartemo & Helkkula, 2024). As a result, integration work may become partial or fragmented, leading to duplicated effort, stalled initiatives, or inconsistent service processes (Laud et al., 2019; Vink et al., 2020). Although SDL has frequently been applied to inter-organisational contexts, its principles are equally applicable within organisations (Huang & Rust, 2018; Payne et al., 2021; Rahwan et al., 2019). From this perspective, the firm can be understood as a nested service environment in which interdependent actors integrate resources under shared institutional arrangements (Kaartemo & Helkkula, 2024). Organisational structures, leadership logics, and cultural norms therefore shape how value propositions are interpreted and enacted internally (Kindström & Kowalkowski, 2014; Kurtmollaiev et al., 2018).

While SDL provides strong conceptual tools for explaining why misalignment constrains value outcomes, it offers less guidance on how institutional coordination is maintained or restored during periods of digital transformation. This limitation becomes particularly salient in digitally intensive service contexts where technological interdependence increases the coordination burden and heightens the risk of institutional friction. Addressing this limitation requires greater attention to the micro-level mechanisms through which institutional coordination is enacted in practice.

5.3.3. Processual Value Formation and Value Attenuation

SDL conceptualises value as contextually and phenomenologically determined by beneficiaries through processes of resource integration (Vargo, Maglio & Akaka, 2008; Vargo & Lusch, 2016). Service research has subsequently developed increasingly nuanced accounts of how resource integration may enhance or diminish actor well-being and how value formation can unfold dynamically through interaction, misintegration, diminution, coping, and recovery (Plé & Cáceres, 2010; Laud et al., 2019; Echeverri & Skålén, 2021; Alexander & Vallström, 2023). These perspectives establish value formation as processual rather than reducible to discrete positive or negative outcomes. However, they provide less specificity regarding how persistent intra-organisational misalignments may progressively constrain the capacity for subsequent value realisation while service activities continue.

We conceptualise this process as *value attenuation*: the progressive weakening of value-realisation capacity arising when persistent organisational misalignments constrain resource integration across nested service exchanges. In the context of this study, value-realisation capacity refers to actors' capacity to integrate resources in ways that enable value realisation within a particular service exchange and/or facilitate its subsequent realisation across interconnected exchanges. This distinction recognises that organisational actors may themselves be beneficiaries within internal service exchanges, while resource-integration processes within those exchanges may simultaneously condition the resources and opportunities available for value realisation by other internal or external beneficiaries across interconnected service exchanges.

Value attenuation does not itself denote a negatively experienced value outcome, nor does it necessarily culminate in value co-destruction. Rather, it describes a deterioration in the conditions through which actors integrate resources and facilitate subsequent value realisation. Its trajectory may intensify, stabilise, or be interrupted and repaired as organisational conditions and resource-integration practices change. This conceptualisation builds on Ehrenthal et al.'s (2014) use of value attenuation in retail settings, where stock-outs can reduce value-in-use during service disruption. The present study develops the concept in a different analytical direction by examining attenuation as a cumulative intra-organisational process associated with persistent coordination frictions across structures, metrics, and interpretive frames. Rather than locating attenuation principally in a discrete disruption to an exchange, the analysis examines

how constraints on resource integration can accumulate across interconnected service exchanges while organisational activity continues. This distinction shifts the analytical focus from the occurrence or valence of a particular value outcome to the evolving capacity for value realisation across interconnected service exchanges.

Existing research provides important explanations of resource misintegration and its consequences for actors (Plé & Cáceres, 2010; Laud et al., 2019; Echeverri & Skålén, 2021), while value attenuation focuses specifically on how persistent coordination frictions may progressively constrain resource integration before, during, and across ongoing service exchanges. The distinction is therefore one of analytical focus rather than an assertion that existing value research is limited to discrete or negative outcomes. From an SDL perspective, value attenuation therefore reflects a progressive constraint on resource integration under conditions of institutional incoherence. As structural, metric, and interpretive misalignments accumulate, actors face increasing difficulty integrating resources coherently across interconnected service exchanges. This does not determine how any particular beneficiary, internal or external, will experience or evaluate value. Rather, attenuation progressively weakens the capacity through which actors may realise value within a particular service exchange and/or facilitate its subsequent realisation by other beneficiaries across interconnected service exchanges. Attenuation is therefore analytically distinct from the valence of an eventual value outcome: it describes a process affecting value-realisation capacity, while beneficiaries remain the ultimate arbiters of value within their particular contexts.

5.3.4. AI as an Operant Resource

SDL scholarship has consistently recognised technology as an operant resource that creates value by acting on other resources (Akaka & Vargo, 2015). Recent research expands this view to AI, describing it as a hybrid resource that can switch between operand and operant roles, challenging traditional distinctions (Kaartemo & Helkkula, 2024). However, empirical research mainly focuses on AI's role at the customer interface or automating routine tasks (Huang & Rust, 2018; Rust, 2019). Little attention has been given to how AI participates in the internal coordination of service work. Emerging studies suggest that AI is increasingly influencing how service activities are organised, interpreted, and enacted (Wirtz et al., 2023; Murray et al., 2020). Instead of just automating tasks, AI filters information, detects anomalies, classifies patterns, and generates recommendations that affect human decision-making. Through these

capabilities, AI can act on resources in ways consistent with SDL, especially when it augments human judgement (Payne et al., 2021).

Research outside SDL similarly indicates that AI systems often function as organisational resources by connecting fragmented data sources, reducing informational bottlenecks, and supporting cross-functional workflows (Rahwan et al., 2019; Kolbjørnsrud et al., 2024). However, these insights have not been systematically incorporated into SDL nor examined empirically in relation to the coordination failures often observed during digital transformation initiatives. Much of the service literature still focuses on AI's role in customer experience, service personalisation, or multi-actor market interactions, leaving its role in shaping the internal organisational environment, where resource integration is initially structured, largely underexplored.

This gap is particularly salient in digitally intensive environments where coordination challenges accumulate gradually over time. We address this need by examining how practitioners describe the role of AI in navigating internal frictions during digital transformation and interpreting these observations through the theoretical lens of SDL to explore their implications for coordination and value outcomes. In doing so, we consider how AI-enabled systems may influence the conditions of organisational coordination rather than merely contributing to service outputs. By integrating fragmented data streams, detecting emerging anomalies, and sharing signals across organisational units, AI systems can shape how actors interpret operational situations and coordinate responses. In this sense, AI can impact the informational and interpretive conditions that shape resource integration within service organisations. However, the specific mechanisms through which such technologies impact institutional coordination remain insufficiently theorised within SDL.

5.4. Method

This study adopts an abductive qualitative research design to investigate how intra-organisational misalignments shape value outcomes and how human and AI operant resources contribute to restoring coordination. Abduction enables iterative movement between empirical evidence and theoretical concepts, allowing emerging insights to refine existing theory (Dubois & Gadde, 2002). Guided by SDL as a sensitising framework, the analysis examines how practitioners interpret and respond to institutional frictions during digital service coordination.

The study proceeded in two phases: Phase 1 generated contextual grounding through secondary materials; Phase 2 involved semi-structured interviews with senior practitioners.

5.4.1. Phase 1: Understanding Digital Change

Phase 1 developed an understanding of contemporary digital change by analysing secondary sources, including industry reports, practitioner white papers, sector analyses, consultancy publications, organisational documents, and professional forum commentary (Table VI). The Phase 1 materials were identified through targeted online searches, practitioner referrals, industry newsletter feeds, and subscription-based analyst platforms. The intent was not exhaustive coverage but to assemble a representative corpus of contemporary documents that practitioners themselves rely on to interpret digital change. The analysis of this information provided insight into challenges, conditions, and digital practices shaping internal coordination.

Phase 1 was not treated as formal data for theory development but used the analysis of industry reports, regulatory documents, and practitioner conversations as sensitising material (Hoonaard et al., 2008). This was to refine our interview guide and to orient the analysis towards typical friction points in digital service coordination. Furthermore, rather than focusing on a single industry, Phase 1 sought cross-sector relevance by examining patterns across customer-facing service sectors. The review highlighted recurring organisational issues that shape how digital change is interpreted and enacted. Insights from Phase 1 informed the development of the interview guide and sensitised the research team to the nuances of internal coordination.

Table VI: Summary of secondary data sources

Source Type	Count	Year Range
Industry Conference	1	2024 & 2025
Industry Data Report	2	2022 - 2025
Industry News Article	1	2024
Industry Publication	4	2022 - 2023
Industry Report	9	2022 - 2024
Industry Web Article	8	2019 - 2024
Informal Conversation	2	2023 - 2024
Leadership Forum Report	1	2024
Magazine	1	2024
Industry Media Release	2	2019 - 2023
News Article	1	2024

5.4.2. Phase 2: Qualitative Fieldwork

Participant identification and recruitment

We employed purposive sampling to identify experienced practitioners, followed by snowball sampling to expand the participant pool (Lincoln & Guba, 1985). Initial recruitment was facilitated via the first author's professional network, supplemented by participant referrals. This approach enabled access to senior practitioners with substantive experience while ensuring diverse organisational perspectives. Further, while we acknowledge that frontline perspectives may surface additional misalignments, our sample focused on senior practitioners to gain a holistic, strategic view. This limitation could be addressed in future research that triangulates these frontline-centric views.

The final sample comprised 33 senior practitioners with cross-functional visibility, including Chief Digital Officers, CEOs, Heads of function, transformation directors/practitioners, and technology architects. The participants were drawn from service organisations in more than 10 distinct service sectors. While many participants were involved in the Insurance industry, sectors such as banking, MarTech, FinTech, supermarkets (FMCG), digital agencies, and consultancy services were all represented in the sample, which operated primarily in New Zealand and Australia. All participants had at least 10 years' experience influencing or directing digital change initiatives. The sample spanned multiple service sectors, covered organisations at varying levels of digital maturity, and provided a strategic view of coordination patterns. This diversity enabled participants to articulate the challenges of historical and contemporary transformations. Front-line roles were excluded because the sample was limited to decision-maker roles to ensure a strategic perspective. Our aim was to capture cross-functional coordination dynamics rather than local task-level routines, which informed our focus on strategic roles. The analysis draws on the full sample of 33 practitioners across service-intensive organisational contexts. A consolidated overview of participant roles, anonymised organisations, industry contexts and professional experience is provided in Chapter 3 (Table I: Interview participant list). The 10+ years' experience criterion ensured participants could compare multiple digital change initiatives. This sampling strategy prioritised cross-organisational coordination visibility over task-level specificity, aligning with the study's focus on systemic coordination dynamics.

Data collection procedures

The first author conducted semi-structured interviews with all 33 participants between mid-June to December 2024. Interviews began with questions about the role and organisational context. The core protocol explored: (1) digital service coordination practices; (2) legacy vs modern architecture tensions; (3) cross-functional coordination; (4) measurement systems; (5) leadership approaches; (6) cultural enablers/constraints; and (7) emerging technologies' role in addressing coordination challenges.

Interviews lasted 60-100 minutes, conducted primarily via Microsoft Teams, with a small number by phone or in person. All interviews were audio-recorded with consent and transcribed verbatim, producing 408 pages of transcript data. Data collection concluded after 33 interviews, when recurring patterns were increasingly reinforced across participant accounts and subsequent interviews primarily added contextual variation rather than substantially changing the developing analytical categories.

Analytic approach

The analysis followed iterative cycles consistent with abductive reasoning and constant comparison. We began with repeated readings of the transcripts, then conducted open coding to identify descriptive features of participants' accounts. First-order codes were grouped into more abstract second-order categories, revealing patterns related to coordination breakdowns and alignment practices. These categories were iteratively compared across cases to identify recurring patterns, which were then consolidated into aggregate dimensions representing consistent forms of coordination breakdown and repair (Appendix 8).

Analysis proceeded through abductive iteration between empirical material and SDL concepts (Dubois and Gadde, 2002), allowing theoretical refinement alongside data interpretation. Coding and interpretation were conducted using Microsoft Excel, which enabled systematic cross-case and cross-role comparison of coordination dynamics across organisational contexts. Initial coding was undertaken by the first author, with both research supervisors providing periodic analytical review. The supervisors read approximately five verbatim interview transcripts and reviewed developing codes and interpretations at intervals of approximately four interviews during data collection. The evolving codebook was subsequently discussed and refined through multiple supervisory meetings before preparation of the first manuscript draft. These discussions provided opportunities to question emerging

interpretations, refine category boundaries, and strengthen analytical consistency, rather than constituting independent coding or formal intercoder validation.

Rigour was further supported through contextual comparison between Phase 1 materials and interview accounts, alongside informal feedback from three interview participants. Participant feedback informed reflection on developing interpretations but did not constitute formal member checking or independent external validation. Through iterative abstraction, three misalignment types emerged as aggregate dimensions: structural, metric, and cultural. Traceability was maintained through a transparent chain of evidence linking first-order data, coding structures, and emergent theoretical constructs (Gioia et al., 2012). The progression from empirical data to coherence practices is illustrated in Appendix 10 and Appendix 11, which together demonstrate how first-order interpretations were systematically aggregated into higher-order theoretical insights. This approach ensured that the emergent constructs were grounded in patterns observed consistently across diverse organisational settings rather than isolated instances.

5.5. Findings

Our analysis begins by examining how digital service coordination unfolds inside service organisations, drawing on Phase 1 to contextualise intra-organisational challenges shaping value outcomes. Across industries, digital initiatives are routinely undermined by barriers to cross-functional collaboration, inconsistent information flows, fragmented decision-making structures, and constraints imposed by legacy architecture. These frictions accumulate over time, creating environments where resource integration becomes partial, delayed, or distorted. In SDL terms, digital service coordination breaks down when actors cannot align their efforts under coherent institutional arrangements, resulting in weakened value outcomes long before they manifest externally.

5.5.1. Industry Context (Phase 1)

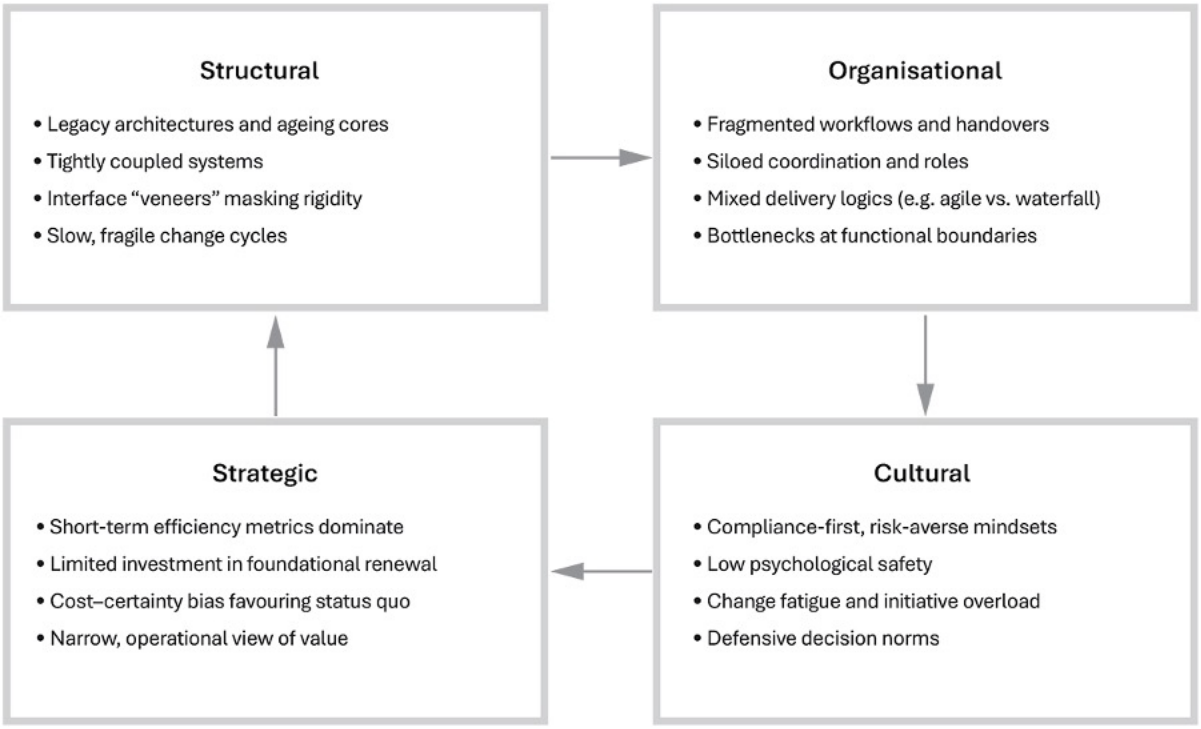
Phase 1 established a contextual understanding of digital service coordination across service organisations through analysis of secondary materials, including industry reports, practitioner commentary, consultancy publications, and sector analyses. This synthesis revealed that the challenges encountered during digital change stem not from technological limitations but from the organisational conditions that shape how technologies are adopted and enacted.

Across sectors such as insurance, banking, telecommunications, and healthcare, organisations faced ageing system architectures, fragmented platforms, and layered legacy solutions that consumed substantial resources just to maintain day-to-day operations. In many cases, firms responded by adding modern interfaces on top of obsolete cores, creating the appearance of digital progress while underlying structural rigidity persisted.

The secondary material also highlighted organisational and governance patterns that constrained the ability to coordinate digital work. Incremental adoption pathways, cautious governance models, and stability-oriented decision logics frequently slowed efforts to modernise. Short-term efficiency metrics shaped strategic priorities, often privileging cost reduction over capability development. Culturally, compliance-first orientations, hierarchical structures, and limited cross-functional collaboration reduced experimentation and impeded timely problem-solving. These conditions converged to produce environments in which coordination was difficult, and resource integration was consistently strained. Figure VIII summarises these contextual patterns, illustrating how structural, organisational, strategic, and cultural conditions reinforced one another to create persistent internal frictions. Rather than isolated barriers, these elements interacted recursively, shaping the institutional environment in which digital service coordination took place.

Collectively, Phase 1 indicated that internal misalignment in service organisations is a persistent, systemic condition rather than a series of isolated breakdowns. Building on these sensitised contextual patterns, the following sections draw on interview data to examine how such frictions manifest in practice and how they influence the trajectory of value realisation during digital change.

Figure VIII: Interrelated contextual pressures of internal misalignment



Source: Author's own

5.5.2. Resource-Friction Dynamics in Digital Coordination (Phase 2)

The analysis of the data yielded aggregate dimensions from clustering first-order codes into higher-order themes (e.g., platform fragmentation, KPI conflict, divergent risk narratives). These themes were grouped into three interrelated misalignments: (1) structural and infrastructural, (2) measurement and narrative, and (3) cultural and leadership (see Appendix 8: Manuscript 2-Aggregate Misalignment Dimensions Development). While analytically distinct, these patterns often reinforce one another, forming a cumulative cycle of institutional friction constraining coherent resource integration. Through further abstraction, episodes of successful coordination repair cohered into four aggregate patterns: *Shared Signals, Temporal Orchestration, Augmented Integration*, and *Informed Narratives*, which we interpret as socio-technical coherence practices.

Structural and infrastructural misalignment

The first pattern concerned structural and infrastructural misalignment, where legacy technologies, fragmented architectures, and organisational silos constrained coordination. Practitioners repeatedly identified ageing core systems as a primary barrier. One participant commented, *"The back-end system is 35 years old… everything takes months to change"* (P17). Another described tightly coupled architectures making minor changes risky: *"Everything's tightly*

coupled… if you want to modernise properly, you're talking ten years" (P15). When structural constraints impede effective coordination, actors encounter difficulties integrating operant and operand resources, potentially weakening the conditions supporting subsequent value realisation. Participants also emphasised *time* as a critical resource, interacting with institutional and technical constraints. Long transformation horizons meant resource integration was continually outpaced by environmental change, amplifying the friction between technological inertia and market dynamics.

Technical constraints intertwined with organisational fragmentation, where different teams worked with incompatible platforms, tools, and delivery approaches, creating friction at handover points. As one practitioner observed, *"Some teams are agile, sprinting fast; others are still waterfall. It breaks the flow"* (P12). Attempts to move faster often produced instability: *"The demand for speed means we cut corners… customers end up paying when the system breaks"* (P26). Decision-making around legacy systems was shaped by a *"cost-certainty paradox"*. Known maintenance costs were perceived as less risky than the uncertain disruption and investment required for replacement. One executive noted, *"The cost and disruption were judged too high, so we kept it, even though everyone knows it's holding us back"* (P7). Over time, teams organised work around these constraints, institutionalising silos and workarounds.

Across practitioner accounts, structural and infrastructural misalignment meant capabilities existed in principle but could not be mobilised efficiently. Digital tool investments were frequently hindered by complexity, with participants describing "slow, fragile" environments in which organisational constraints limited the extent technological capabilities could support subsequent customer-facing activities.

Measurement and narrative misalignment

Measurement and narrative misalignment arise when performance systems and leadership communication provide inconsistent signals about what “good” looks like. Unlike generic organisational tension, this misalignment is especially consequential in digital service coordination contexts because measurement logics directly shape how operant resources (e.g., skills, judgement, prioritisation) integrate with operand resources (e.g., systems, workflows, digital architectures). When these logics conflict, actors pursue incompatible value propositions, creating resource friction that progressively weakens coordination and slows the pace of digitally mediated service work.

Practitioners described coexisting measurement regimes pulling the organisation in different directions. Operational teams optimised for stability and risk, finance prioritised cost reduction, marketing emphasised acquisition, and strategy emphasised customer outcomes. This fragmentation produced friction between operant resources, as each group integrated its expertise and judgement according to conflicting criteria. An operations leader noted, *"I.T. measures uptime… business measures NPS and sales. We end up optimising for different things"* (P2). Another highlighted how efficiency goals outweighed service logic: *"The KPI was headcount reduction, not customer experience. We hit the efficiency target, but service times got worse"* (P26). This account describes that the target was achieved, but the service became slower. It exposes the difficulty with treating a departmental efficiency measure as evidence of wider improvement. In theoretical terms, the measurement system rewarded local optimisation while constraining coordinated resource integration.

The tension was amplified by incompatible temporal horizons. Annual budgeting cycles and short-term financial targets clashed with the long renewal cycles required to modernise infrastructure. As one executive put it, *"Annual budgeting undermines transformation"* (P20). Here, time itself becomes a resource whose misalignment with institutional and technological rhythms creates friction. Speed metrics incentivised rapid deployment even when stability suffered, resulting in higher incident rates. In SDL terms, these inconsistencies constrain actors' ability to align their contributions under shared institutional arrangements, potentially weakening resource-integration capacity over time without necessarily producing an immediate breakdown in service activity.

Leadership narratives functioned as an additional layer of coordination, or miscoordination. In some organisations, transformation was framed primarily in terms of compliance or cost reduction, leaving teams unclear about how technical work related to any specific value outcomes. Others used narratives to reinforce shared purpose. One leader emphasised this role: *"We need to connect it back to business and customer outcomes, otherwise it gets lost"* (P33). When measurement and narrative were aligned, practitioners described smoother prioritisation and fewer cross-functional clashes. When they diverged, digital work became fragmented, with teams *"chasing different versions of success"* (P9).

These dynamics are not generic cultural issues; they are specific to digitally intensive environments where data flows, system interdependencies, and iteration cycles require high

degrees of interpretive and temporal alignment. When measurement logics and leadership narratives conflict, actors interpret signals differently, allocate resources inconsistently, and make decisions that diverge over time. These recurring frictions may contribute to value attenuation by progressively constraining the organisation's capacity for coherent resource integration. While the tension doesn't necessarily result in immediate service failure, misaligned signals can continually redirect attention, resources, and interpretation, weakening the conditions through which subsequent value realisation is facilitated.

Cultural and leadership misalignment

Cultural and leadership dynamics shaped how effectively organisations could sustain digital service coordination. Unlike general organisational resistance, the patterns described by practitioners were specific to the demands of digitally mediated coordination, where rapid information flow, iterative decision cycles, and increased interdependence between technical and non-technical teams require leadership and culture that differ from those in traditional service environments. Practitioners explained that long-standing norms of caution, hierarchical escalation, and risk avoidance often conflicted with the speed and flexibility required for digital service coordination. One participant noted, *"People who've been here 20 years say no to change because it feels risky, and that slows everything down"* (P18). Another recalled a prolonged decision-making process that ultimately left the organisation trailing competitors: "*It took six years of talking about it. By the time we moved, the market had moved again"* (P17).

These frictions illustrate a clash between institutionalised behavioural resources (e.g., legacy leadership logics, risk-averse norms) and the temporal and cognitive demands of digital service coordination (e.g., faster cycle times, iterative learning, cross-functional interdependence). In SDL terms, the resource integration required for coordination becomes strained when cultural norms suppress knowledge sharing, inhibit timely escalation, or discourage experimentation. As a result, actors struggle to align their contributions, even when technical investments are substantial. This tension is amplified in digital service environments because delays, deferrals, or siloed decision-making can quickly propagate through interconnected workflows, intensifying coordination breakdowns and contributing to value attenuation.

Participants also described leadership practices that affected how digital coordination unfolded. In some organisations, leaders defaulted to traditional command-and-control

approaches, inadvertently reinforcing silos and reducing the psychological safety needed for continuous adjustment. Others relied heavily on external consultants, thereby weakening internal capability and limiting opportunities for learning. As one leader observed, "*We're all a bit more risk averse than we used to be, and that impacts how you invest in technology and people"* (P9). These patterns reveal that cultural and leadership resources did not simply influence "*attitudes toward change*," but directly shaped how, and how quickly, actors could integrate their operant and operand resources in digitally mediated environments.

Conversely, participants described environments in which leaders adopted more adaptive, relational approaches, such as sharing decision-making, listening to technical expertise, and encouraging open discussion of coordination breakdowns. *"They're really good at consulting, listening to experts, and working through issues—leaders who really listen"* (P31). In these cases, cultural resources acted as enablers rather than constraints by encouraging early surfacing of coordination problems, cross-functional problem-solving, and iterative learning. Such environments better supported the fluid interdependencies of digital service coordination and reduced the risk of incremental value erosion.

Finally, practitioners repeatedly highlighted change fatigue as a cultural friction specific to digitally mediated coordination. Teams facing overlapping initiatives, frequent platform changes, and shifting priorities described declining capacity to absorb new workflows. *"People are tired. Every quarter there's a new tool or platform, and people disengage"* (P2). This fatigue directly undermined the behavioural resources necessary for sustained coordination, like attention, motivation, and willingness to integrate new processes, creating further drift and instability. In conditions where digital service coordination must be continuous and adaptive, this erosion of operant resources contributes to the progressive weakening of value potential.

Across all accounts, cultural and leadership misalignment was not merely an attitudinal barrier but a resource-integration constraint that interfered with how actors coordinated digitally mediated work. These frictions were specific to the escalating pace, complexity, and interdependence that characterise digital service coordination, and played a central role in the gradual attenuation of value observed across the dataset.

5.5.3. The Interrelated Nature of Misalignments

Although we present misalignments separately, practitioners repeatedly emphasised their intertwinement. Together, they formed a self-reinforcing pattern of internal friction that

progressively weakened coordination. Structural constraints were often the starting point, leading to bottlenecks and handoff issues. These rigidities contributed to inconsistent measurement and conflicting interpretations of progress. As one participant observed, *"Everyone is measuring different things"* (P9). Without shared metrics, agreement on prioritisation became difficult. Over time, informational inconsistencies fed cultural patterns. Trust eroded as teams perceived others as blocking progress. Leaders became more cautious about foundational change, and teams reverted to familiar routines. Participants highlighted the circular, temporally extended nature of this pattern. Structural limits undermined measurement; fragmented measurement, over time, eroded trust and shared purpose; eroded trust reinforced structural arrangements, making change difficult. Attempts to intervene in one domain often yielded only limited improvements when underlying conditions remained unchanged.

These accounts suggest misalignment is best understood as a systemic condition rather than isolated problems. Instead of single-failure moments, practitioners described a gradual, cumulative pattern in which value potential was progressively diluted over months and years through misaligned structures, metrics, and cultures. Taken together, these retrospective accounts of persistent misalignment, recurring coordination frictions, and increasingly embedded workarounds provide the empirical basis for interpreting value attenuation as a process through which the capacity for subsequent resource integration and value realisation may progressively weaken.

5.5.4. AI-Mediated Coordination

Against this backdrop of misalignment, practitioners described AI as increasingly influential in supporting internal coordination. AI was not experienced primarily as a labour substitute. Rather, participants framed it as a practical aid that connects fragmented information, stabilises workflows, and improves shared understanding. A recurring theme concerned AI-enabled analytics and dashboards creating shared visibility across traditional boundaries. Teams used AI-derived insights to track customer behaviour, monitor performance, and identify emerging issues. One participant explained that these tools *"democratise data across the organisation"* (P23). Another noted improvement in telemetry enabled linking product changes to real-world impact. We focus on AI because our participants repeatedly described AI-enabled tools (e.g., analytics platforms, alerting systems, decision support dashboards) as central to emerging coordination practices. Although many coordination levers exist (e.g., governance forums, structural redesign),

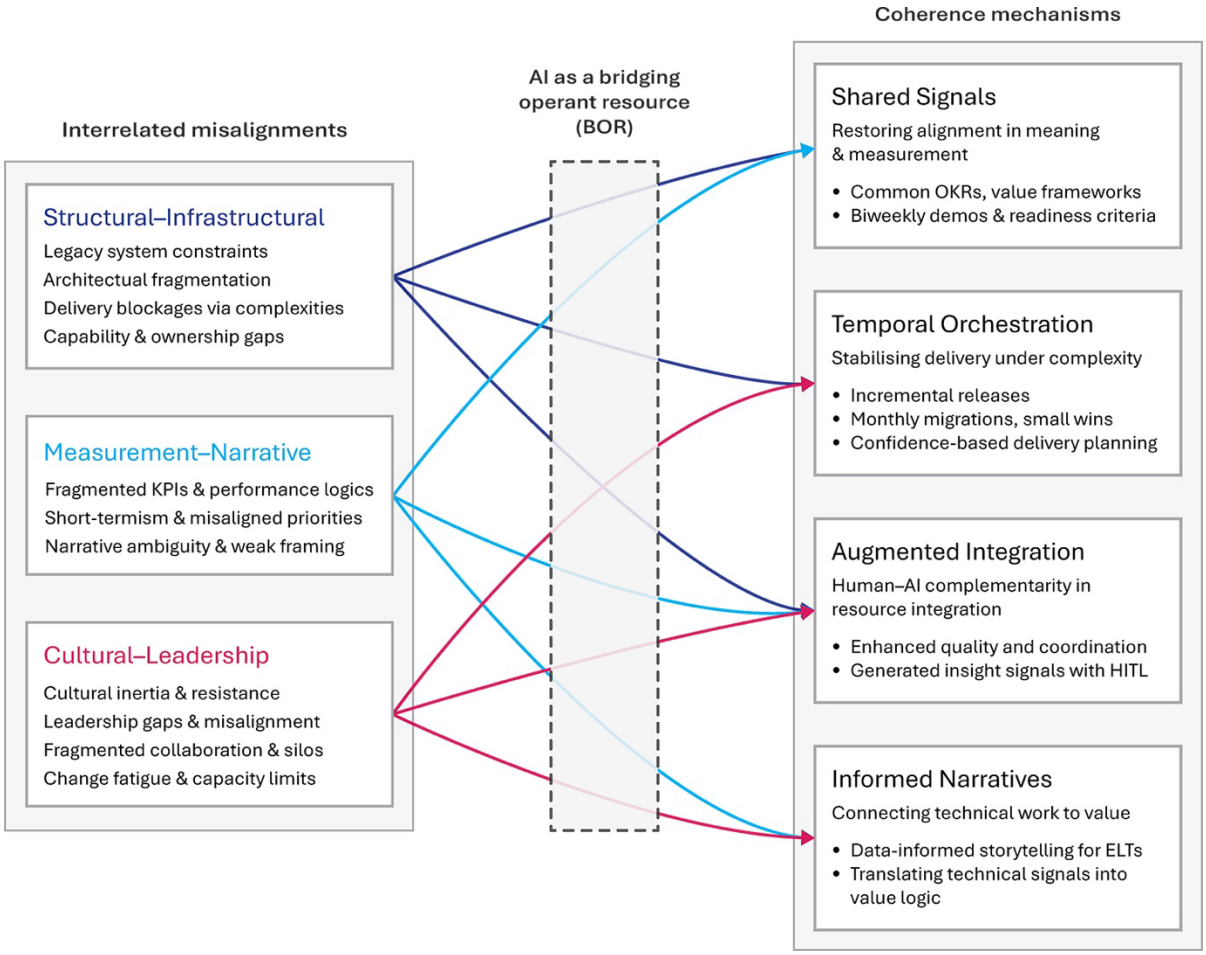
AI featured prominently in accounts of how information visibility, anomaly detection, and cross-functional signalling are enacted in practice. Our goal is not to claim AI as the only coordination mechanism, but to explicate how it participates in the micro-foundations of institutional coherence alongside human governance practices.

AI also supported organisations in managing decision load and workflow complexity. Automated triage systems, routing engines, and recommendation tools enabled prioritisation, sequencing, and risk assessment across interdependent activities. As one interviewee described, moving routine tasks onto digital platforms *"enables our contact centre to support higher-value conversations"* (P16). Others emphasised AI's role in forecasting and scenario planning, helping leaders *"see the downstream"* (P33) consequences before committing resources. Contrary to assumptions of automation-driven displacement, practitioners consistently emphasised the complementarity of humans and AI.

Across the data, practitioners described AI-enabled systems as reconnecting fragmented data streams, clarifying interdependencies, and revealing coordination tensions that would otherwise remain latent. Several participants described this as a form of "*collective intelligence*" (P17), in which AI-directed attention improved decision-making speed and reduced cross-functional ambiguity without removing the need for human judgement. AI-generated insights also shaped organisational communication. Practitioners used dashboards, performance visualisations, and predictive models as anchors for discussion. One participant described a shift from opinion-led debate to *"telling the story of why it matters to the customer"* (P27), grounded in shared evidence. This shift helped align narratives across technical and business teams.

Accumulatively, these accounts suggest that AI-enabled systems may perform a socio-technical bridging function by connecting informational, structural, and interpretive conditions that would otherwise remain fragmented. However, while AI improved visibility and reduced informational friction, coordination still depended on how actors interpreted and acted upon these signals. In practice, AI-enabled insights became embedded within broader social, temporal, and narrative adjustments that stabilised coordination when misalignment disrupted resource integration. These coordination repairs were interpreted as four recurrent socio-technical practices through which actors re-established alignment in digitally intensive service environments (Figure IX).

Figure IX: AI as a bridge to shape coordination



Source: Author's own

5.5.5. Socio-Technical Coherence Practices

The shift from misalignment patterns to coordination practices is an abductive step. The three misalignments show when resource integration strains, while the four practices reveal how actors actively responded in situ. These practices represent forms of coordination repair in response to structural, metric, and cultural frictions. Although other responses appeared, these four were most common and key to restoring coordination in entrenched misalignment. They are not an exhaustive taxonomy but empirically grounded patterns of the most recurrent coordination repairs. Comparing cases, we found effective responses involved aligning information, synchronising interdependent work, supporting human–AI complementarity, and stabilising shared interpretations. These responses form the basis for the four socio-technical coherence practices.

Across the dataset, participants described a recurring set of practical responses they relied upon when internal frictions made digital service coordination difficult. These responses were

not formalised organisational routines but locally generated ways of restoring coordination when structural, informational or cultural conditions disrupted the flow of work. While expressed differently across organisations, four practices appeared consistently in the data and provide insight into how actors navigated misalignment in practice. Through further abstraction, we noticed that successful coordination repairs clustered around four recurrent socio-technical practices, *Shared Signals, Temporal Orchestration, Augmented Integration*, and *Informed Narratives*, that we interpret as the micro-foundations of institutional coherence in digital service coordination. Although additional coordination responses were observed, these four coherence practices were consistently present across cases and captured the dominant patterns through which actors restored coordination under entrenched structural, informational, and cultural constraints. In many instances, participants emphasised that such internal coordination work needed to stabilise before extending service innovations to customers, particularly where legacy systems and embedded processes increased the risk and cost of premature implementation. The analytical progression from interview data to coherence practices is presented in Appendix 10 and Appendix 11. Appendix 10 presents the progression from interview excerpts to analytical themes, while Appendix 11 extends this by showing how these themes aggregate into coherence practices.

Shared Signals establishes a common informational basis for decision-making by aligning how organisational conditions are observed and interpreted. Participants explained that when teams relied on different reports or metrics, alignment deteriorated quickly. Shared dashboards, telemetry streams, and consolidated reporting reduced interpretive ambiguity and enabled faster agreement on priorities. One participant noted, "*When everyone is looking at the same data, the arguments disappear. We stop debating whose numbers are right*" (P4). Another described a similar dynamic: "*Marketing had one view, ops another, tech another. Once we got common dashboards, we finally had the same conversation*" (P9). While shared signals did not resolve underlying system constraints, they provided a stable reference point that improved coordination.

Temporal Orchestration aligns the pace and sequencing of interdependent work across teams operating at different cadences. Participants frequently described how incompatible schedules created bottlenecks and backlogs. Organisations that synchronised planning cycles and release rhythms experienced fewer handover breakdowns and reduced operational

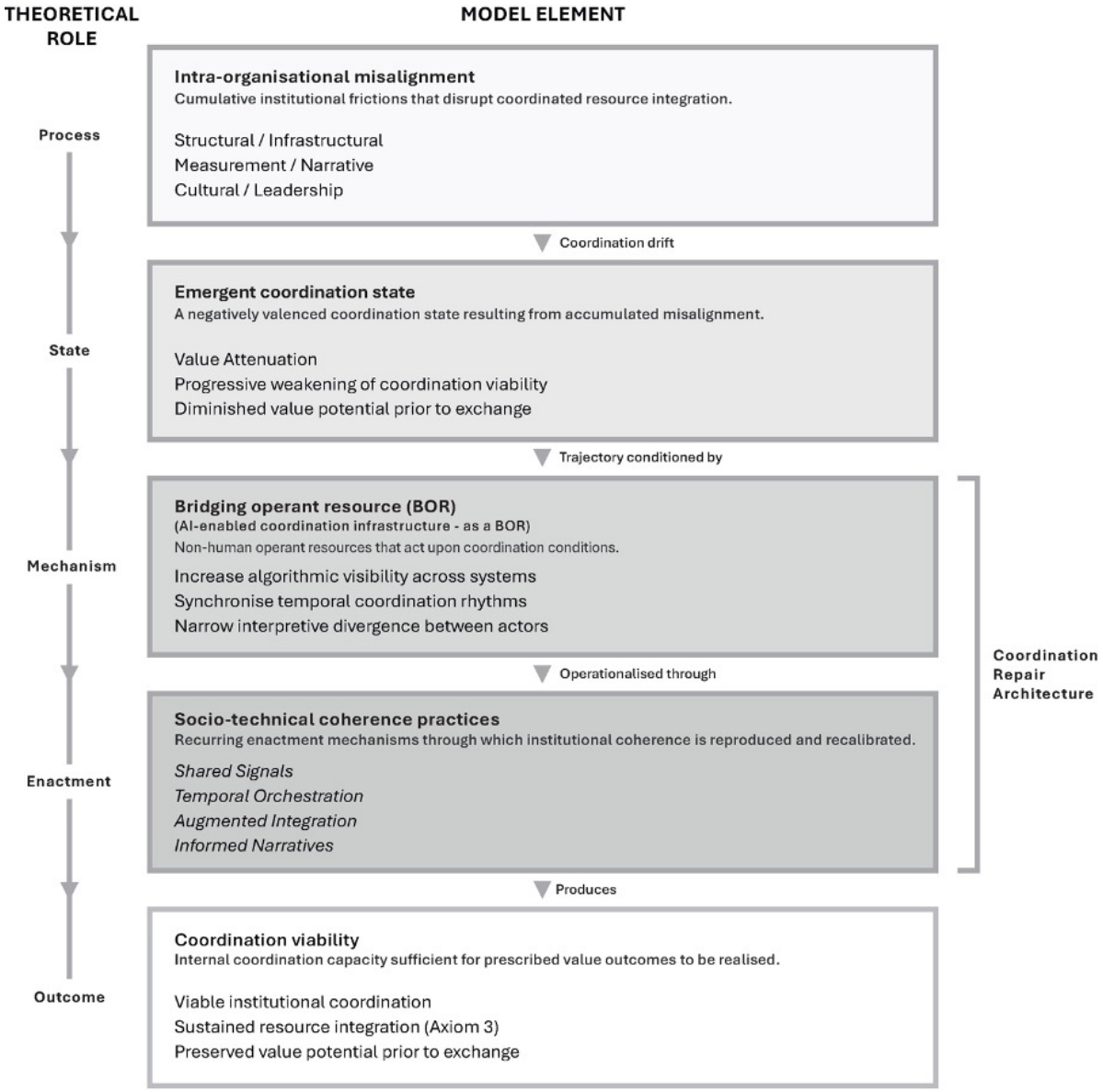
congestion. As one leader stated, "*If we don't align the rhythm between teams, everything backs up. The planning cycles have to match*" (P12). Another observed that "*once we had a consistent release cycle, people could actually plan…the noise dropped right away*" (P10). These adjustments enabled more predictable coordination despite fragmented architectures.

Augmented Integration reflects how AI supports actors in identifying, prioritising, and responding to emerging coordination issues. Participants emphasised that AI did not replace expertise but enhanced their ability to detect patterns and interpret complex signals. As one practitioner summarised, "*AI shows us where to look. It doesn't decide for us, but it gives us a clearer starting point"* (P17). Another explained, "*The models surfaced patterns we didn't see coming. It meant we could address issues before they snowballed*" (P33). This combination enabled actors to respond more effectively under conditions of uncertainty.

Informed Narratives align how organisational priorities are understood across teams by linking technical change to shared data-grounded meaning. Participants highlighted that technical initiatives often remained abstract unless connected to broader organisational objectives. One senior manager explained, "*If people don't understand why the change matters, they resist it. The story ties the work together*" (P27). Another noted, "*We use the data to anchor the story; otherwise, people fill the gaps with their own assumptions*" (P33). These narratives helped reduce interpretive divergence and reinforced a shared direction.

Together, these four practices illustrate how practitioners enacted coordination repair in digitally intensive environments by re-establishing visibility, synchronising workflows, enhancing interpretation, and reinforcing shared meaning. Figure X synthesises these findings into a layered coordination model linking intra-organisational misalignment, value attenuation, bridging operant resources, and socio-technical coherence practices. These practices do not eliminate misalignment but represent situated responses that enable service work to continue despite structural and institutional constraints. Across cases, they were enacted as practical adjustments to informational, temporal, and interpretive conditions, allowing actors to stabilise coordination when it became disrupted. These empirical patterns provide the foundation for the subsequent theoretical interpretation of coordination as an ongoing, practice-based accomplishment within digitally intensive service environments.

Figure X: Layered coordination repair architecture



Source: Author's own

5.6. Discussion and Implications

Digital transformation has intensified the coordination challenges faced by service organisations, yet existing SDL scholarship provides less specificity regarding how persistent intra-organisational misalignment progressively constrains resource integration and value-realisation capacity during ongoing service activity. This study addresses that problem by examining how structural, metric, and cultural misalignments accumulate within digitally intensive service organisations and influence the viability of coordinated resource integration. Drawing on qualitative evidence from practitioners, we develop a layered explanation of these dynamics by conceptualising value attenuation as a process of progressive weakening in value-realisation capacity, theorising AI as a contingent bridging operant resource that can condition this trajectory and identifying socio-technical micro-foundations through which institutional coherence is enacted and recalibrated in practice. In doing so, the findings explain how persistent coordination frictions may progressively constrain value realisation across interconnected service exchanges even while organisational activity continues.

5.6.1. Theoretical Implications

Value attenuation - progressive weakening in value-realisation capacity

This study conceptualises value attenuation as a cumulative intra-organisational process through which persistent misalignments progressively constrain resource integration and weaken value-realisation capacity across interconnected service exchanges. Structural, metric, and cultural-interpretive misalignments represent the organisational frictions through which this process develops, while institutional incoherence describes fragmentation among the rules, norms, metrics, and interpretive frames that ordinarily support coordinated resource integration. Value attenuation captures the value-relevant trajectory arising as these frictions persist: the progressive weakening of actors' capacity to realise value within particular service exchanges and/or facilitate its subsequent realisation by downstream beneficiaries. It therefore provides an explanation of how persistent organisational misalignment becomes consequential for value formation rather than simply redescribing the existence of misalignment.

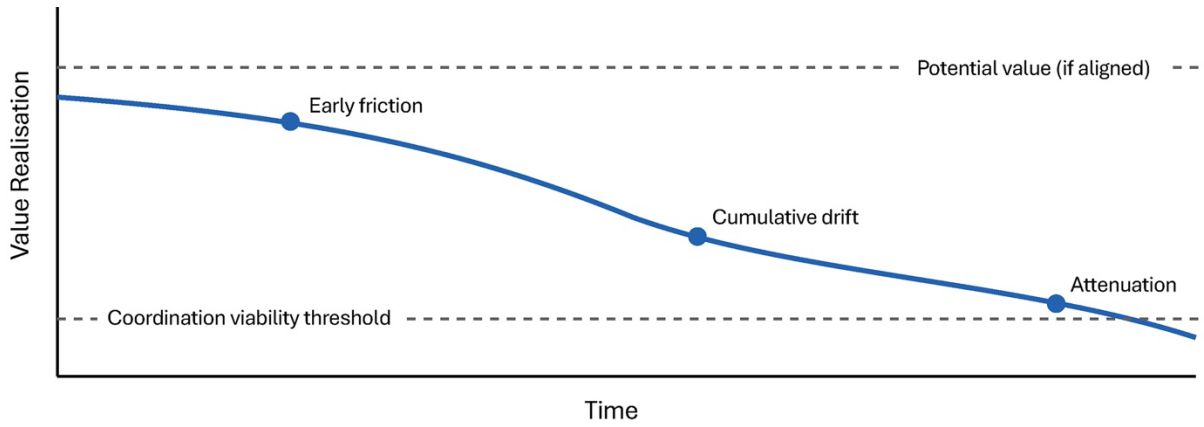
Value attenuation is conceptualised as a potentially gradual and reversible process. Digital transformation initiatives may continue, systems may remain operational, and actors may remain engaged even as persistent misalignments constrain resource integration and weaken the conditions for subsequent value realisation. Its trajectory may intensify, stabilise, or be

mitigated as organisational actors adjust coordination arrangements and integrate resources differently. Attenuation may therefore contribute to diminished or negatively experienced value, but such outcomes should not be assumed from the presence of attenuation itself

In SDL terms, the process connects two foundational concerns: actors' integration of resources (Axiom 3) and the institutions and institutional arrangements through which value co-creation is coordinated (Axiom 5). As institutional arrangements become less coherent, actors face increasing difficulty integrating resources effectively across interconnected service exchanges. Value attenuation theorises how this deterioration progressively constrains value-realisation capacity without presuming how beneficiaries will ultimately evaluate value (Figure XI). Internal coordination dynamics are therefore consequential for value formation because they shape the conditions under which actors integrate resources and facilitate value realisation across interconnected service exchanges.

Through the situating of value attenuation within the evolving relationship between institutional coordination and resource integration, the study introduces a meso-level process explanation linking persistent organisational misalignment to changes in value-realisation capacity. Building on existing processual accounts of value co-creation, co-destruction, and resource misintegration, value attenuation directs attention to the cumulative weakening of organisational conditions that support subsequent resource integration, rather than assuming that diminished or negatively experienced value has already occurred. Its contribution lies in explaining how persistent structural, metric, and cultural-interpretive misalignments may progressively constrain actors' capacity to facilitate value realisation across interconnected service exchanges, even while service activities continue.

Figure XI: Value Attenuation in organisational coordination over time



Source: Author's own

AI-enabled systems as bridging operant resources: Conditioning value attenuation through socio-technical coordination

The findings suggest that AI-enabled systems may influence the conditions under which organisational actors integrate resources, potentially moderating processes of value attenuation. We conceptualise this functional role as a bridging operant resource (BOR), referring to an operant resource that acts upon informational, temporal, or interpretive conditions to support coordination across otherwise fragmented organisational activities. The concept therefore refers not to a particular class of technology, but to the bridging function a resource performs within a particular socio-technical configuration.

In the empirical material, this bridging function was associated with capabilities such as aggregating dispersed data, detecting anomalies, identifying patterns, prioritising emerging issues, and generating recommendations. These capabilities did not themselves resolve organisational misalignment. Rather, they altered what organisational actors could see, when emerging issues became visible, and how dispersed information could be interpreted across functional boundaries. AI-enabled systems could therefore support resource integration by increasing informational visibility, assisting temporal coordination, and providing inputs into shared interpretation. Crucially, the bridging role is contingent rather than inherent. AI-enabled systems do not independently create institutional coherence or arrest value attenuation. Their effects depend on the data, governance arrangements, performance logics, human interpretations, and work practices within which they are embedded. Where these conditions support shared interpretation and coordinated action, AI-enabled systems may help actors detect and respond to emerging misalignments, thereby mitigating the processes through which value-realisation capacity weakens. Where the same systems reproduce fragmented data, siloed metrics, or conflicting institutional logics, they may instead reinforce misalignment and actually intensify attenuation. Therefore, AI-enabled systems condition rather than determine the trajectory of value attenuation.

The BOR concept is therefore analytically distinct from the socio-technical coherence practices identified in the findings. A BOR refers to a resource performing a bridging function; coherence practices describe the recurrent patterns of situated action through which such resources are configured, interpreted, and mobilised alongside human judgement. AI-enabled systems may consequently function as BORs within practices such as Shared Signals, Temporal

Orchestration, Augmented Integration, and Informed Narratives, but the technology itself should not be equated with the practice through which coordination is accomplished.

Micro foundations of institutional coherence

A further contribution of this study is the identification of socio-technical micro-foundations through which institutional coherence is enacted and recalibrated in practice. Whereas value attenuation explains how persistent misalignment progressively constrains resource integration and weakens value-realisation capacity, the identified coherence practices explain how organisational actors respond to these conditions by mobilising and integrating available resources. These resources may include human expertise, organisational routines, shared data, digital infrastructures, and AI-enabled systems. Institutional coherence is therefore not treated as a fixed organisational property, but as something continually enacted through actors' situated resource-integration practices.

Rather than treating coordination as a structural or episodic outcome, the findings show that coherence is continually accomplished through situated socio-technical practices embedded in everyday work. The four practices, *Shared Signals, Temporal Orchestration, Augmented Integration*, and *Informed Narratives*, represent recurring patterns through which actors respond to coordination frictions by adjusting informational, temporal, and interpretive conditions. Through these practices, actors draw upon and recombine available resources to maintain, restore, or recalibrate sufficiently coherent conditions for ongoing resource integration. The practices are therefore conceptualised as micro-foundations not because they eliminate organisational misalignment, but because they highlight the recurrent actor-level activities through which institutional coordination is reproduced and adjusted over time.

Within these practices, AI-enabled systems function as participating resources rather than autonomous sources of institutional coherence. Their contribution to value-realisation capacity is contingent on how they are configured and governed, and how actors interpret and engage with the informational resources they provide. For example, an AI-enabled system may identify an emerging pattern, anomaly, or dependency, but this only alters coordination when organisational actors incorporate that information into subsequent decisions and practices. In this sense, the bridging function of AI is realised through resource integration: AI-enabled outputs become resources that actors may integrate with human expertise and other organisational resources in responding to shifting coordination demands. Over time, these repeated socio-technical

interactions may mitigate, stabilise, or intensify the process of value attenuation depending on how technological resources are configured and integrated within the wider organisational context.

From an SDL perspective, these practices connect resource integration (Axiom 3) with the institutional arrangements that coordinate value co-creation (Axiom 5). Shared Signals, Temporal Orchestration, Augmented Integration, and Informed Narratives each involve actors integrating resources while simultaneously reproducing or recalibrating the rules, meanings, temporal expectations, and interpretive frames through which coordination occurs. Institutional coherence is therefore continually accomplished through resource-integration practices rather than existing independently of them. By identifying these recurrent socio-technical practices, the study provides a micro-foundational account of how actors work to sustain value-realisation capacity under conditions of persistent organisational misalignment.

Reframing internal alignment as an ongoing coordination accomplishment

Taken together, these contributions provide a layered explanation of how internal coordination shapes value-realisation capacity in digitally intensive service organisations. Persistent structural, metric, and cultural-interpretive misalignments can constrain resource integration and progressively weaken value-realisation capacity through the process of value attenuation. Organisational actors respond to these conditions through recurrent socio-technical coherence practices, mobilising human, organisational, and technological resources to sustain or recalibrate coordination. Within these practices, AI-enabled systems may perform a bridging operant function where their configuration and use help connect informational, temporal, or interpretive conditions across otherwise fragmented organisational domains.

Internal alignment should therefore not be understood as a static structural achievement or an end-state produced by a digital transformation initiative. In complex service organisations, changing technologies, organisational priorities, performance metrics, and actor interpretations continually alter the conditions under which resources are integrated. Sustaining coordination consequently requires ongoing work through which actors recognise emerging frictions, interpret changing conditions, and adjust how resources are mobilised across interconnected service exchanges. Alignment, from this perspective, is continually accomplished and remains susceptible to renewed misalignment as organisational conditions evolve.

This perspective connects the three theoretical contributions in this research where 1) **value attenuation** explains how persistent misalignment can progressively weaken value-realisation capacity; 2) **bridging operant resources** explain how particular resources can connect otherwise fragmented coordination conditions; and 3) **socio-technical coherence practices** explain how organisational actors mobilise such resources in recurrent efforts to sustain or recalibrate institutional coherence. Viewed holistically, these concepts provide a mid-range explanation of how value-realisation capacity may weaken, stabilise, or recover through ongoing processes of resource integration during digital transformation. Rather than extending SDL by proposing an alternative account of value itself, the study specifies intra-organisational processes through which the conditions supporting subsequent value realisation may change over time.

5.6.2. Practical Implications

The findings offer several practical implications for organisations seeking to improve coordination and reduce internal friction that constrains value-realisation capacity. First, organisations should treat persistent misalignment as an early indication that value-realisation capacity may be weakening. Structural, metric, and cultural-interpretive misalignments can accumulate gradually, constraining resource integration even while service processes continue to operate. Practitioners should therefore look to develop routines that surface cross-functional inconsistencies, conflicting metrics, fragmented information, and divergent interpretations before these become embedded in day-to-day operations. Early recognition creates opportunities to recalibrate coordination practices before attenuation becomes more difficult to reverse.

These implications are particularly relevant for low-touch, process-intensive services such as insurance and banking, where customers may interact directly with only a small part of an extended service process (e.g., a long and complex claim for home earthquake damage). Much of the resource integration supporting the value proposition occurs across interconnected internal service exchanges that remain largely invisible to the external beneficiary. Persistent internal misalignment may therefore progressively constrain the organisation's capacity to facilitate subsequent value realisation without immediately producing an observable customer-facing failure. Consequently, leaders should attend to the quality of internal coordination rather than relying solely on customer-facing outcomes as indicators of transformation performance.

Second, organisations should evaluate AI-enabled systems not only in terms of automation or efficiency, but also according to the coordination functions they may perform. The research findings suggest that appropriately configured and integrated AI-enabled systems can support informational visibility, pattern recognition, prioritisation, and shared interpretation across organisational boundaries. Their effectiveness, however, depends on the quality of underlying data, governance arrangements, human interpretation, and their integration into surrounding work practices. AI investment should therefore be accompanied by attention to the socio-technical conditions through which AI-generated resources are interpreted and incorporated into coordinated action.

Third, organisations should cultivate coherence practices as recurrent rather than episodic responses to digital transformation. *Shared Signals, Temporal Orchestration, Augmented Integration*, and *Informed Narratives* provide practical patterns through which actors can surface inconsistencies, coordinate interdependent work, integrate technological and human resources, and develop sufficiently shared interpretations for coordinated action. These practices should not be treated as universal prescriptions or as mechanisms that eliminate misalignment. Rather, they provide empirically grounded patterns that practitioners can adapt to their organisational context as coordination conditions develop and evolve.

Finally, leadership should approach internal alignment as an ongoing organisational accomplishment rather than a one-time transformation objective. Changes in technologies, organisational priorities, performance measures, and actor interpretations continually alter the conditions for resource integration. Maintaining coordination therefore requires repeated attention to emerging frictions and continual adjustment of the resources and practices through which actors coordinate. From this perspective, successful digital transformation depends not only on implementing technological solutions, but on sustaining the organisational conditions through which those technologies can contribute to coordinated resource integration and subsequent value realisation.

5.6.3. Limitations and Future Research

This study develops a mid-range explanation of how persistent intra-organisational misalignment may progressively constrain resource integration and weaken value-realisation capacity, but several limitations define the boundaries of these claims. First, the cross-sectional qualitative design does not allow the process of value attenuation to be observed longitudinally

as it unfolds. Value attenuation is therefore developed abductively from recurring practitioner accounts of accumulated coordination frictions and their consequences rather than tracked as a linear, invariant chronological sequence. Longitudinal research could examine how particular forms of misalignment emerge, accumulate, stabilise, or are repaired over time, and how resources performing bridging functions may condition trajectories of value attenuation and recovery.

Second, the empirical focus on intra-organisational coordination deliberately privileges processes occurring within service organisations. Although this focus enabled detailed examination of internal resource integration, value formation extends across wider service ecosystems involving customers, partners, suppliers, regulators, and other actors. Future research could examine whether and how attenuation propagates across organisational boundaries and how intra-organisational coordination conditions interact with value-realisation processes across broader service ecosystems.

Third, the study examines AI-enabled systems primarily through the coordination functions described by participants rather than through a systematic comparison of specific AI architectures or technological forms. The BOR concept therefore identifies a functional role that different AI-enabled configurations may perform rather than implying that AI constitutes a homogeneous category of resource. Future research could compare how different forms of AI, including predictive analytics, recommendation systems, generative AI, and increasingly agentic systems, differ in their capacity to support or disrupt informational, temporal, and interpretive coordination. The research could also examine how data quality, governance, explainability, autonomy, and human oversight condition whether AI-enabled systems function as bridging operant resources.

Finally, the findings are grounded in the experiences of senior digital transformation practitioners operating predominantly within service-intensive organisational contexts. The study therefore seeks analytical rather than statistical generalisation. The proposed concepts and relationships warrant examination across different institutional, sectoral, and national settings to establish their boundary conditions. Comparative research may identify contexts in which particular forms of misalignment produce different attenuation trajectories or where different coherence practices and bridging resources become salient.

Chapter 6: Conclusion and Contributions

Preface

This chapter integrates the findings of the two empirical studies and presents the overall contributions of the thesis. It begins by revisiting the overarching research question and four supporting research questions before developing an integrated explanation of how strategic, organisational, and socio-technical conditions interact during digital transformation. In doing so, the chapter brings together the tradition–innovation positions and DE mechanisms developed in Manuscript 1 with the organisational misalignments, value attenuation, socio-technical coherence practices, and bridging operant resource concept developed in Manuscript 2.

The chapter then outlines the theoretical and practical contributions arising from this integration and considers the limitations and future research opportunities associated with the thesis. Overall, the chapter argues that digital transformation outcomes cannot be explained by technological adoption alone as strategic positioning, organisational coordination, and socio-technical resource integration shape actors' capacity to realise or facilitate value across interconnected service exchanges as transformation unfolds.

6.1. Research Question Review

The thesis-level research question asked: *How do multi-dimensional intra-organisational conditions shape value-realisation capacity during digital transformation in service organisations?*

In addressing this question, the thesis shows that intra-organisational conditions do not determine value itself; instead, they shape actors' capacity to integrate resources in ways that enable value realisation within particular service exchanges and facilitate its subsequent realisation across interconnected exchanges. Value remains contextually and phenomenologically determined by beneficiaries, who may be internal or external to the organisation. The thesis therefore explains how strategic, organisational, and socio-technical conditions strengthen or constrain value-realisation capacity during digital transformation rather than determining value outcomes directly.

Taken together, the two studies show that these conditions operate across interconnected strategic, organisational, and socio-technical dimensions. At the strategic level, organisations

navigate persistent tensions between stability and innovation through different positions and DE mechanisms. At the organisational level, structural, metric, and cultural-interpretive misalignments can constrain resource integration and progressively weaken value-realisation capacity through the process conceptualised as value attenuation. At the socio-technical level, organisational actors mobilise human, organisational, and technological resources through recurrent coherence practices, within which appropriately configured AI-enabled systems may perform bridging operant functions. These dimensions interact rather than operate independently, shaping the conditions through which actors integrate resources and realise or facilitate value across interconnected service exchanges during digital transformation.

RQ1a: How do service organisations in highly regulated sectors navigate paradoxical tensions between stability and innovation during digital transformation?

Manuscript 1 finds that organisations do not simply alternate between stability and innovation but occupy recognisable positions along a tradition–innovation continuum. Some lean strongly toward tradition, using digital initiatives to reinforce existing operating models, while others prioritise innovation and treat legacy structures as obstacles to be worked around. A third group deliberately layers new digital capabilities while protecting critical legacy functions. These positions are shaped by risk logics, regulatory interpretations, leadership narratives, and historical investment patterns, and they influence how subsequent digital transformation decisions are framed and justified. Overall, the findings show that organisations navigate the stability–innovation paradox not by resolving the tension, but by adopting different strategic positions and continually recalibrating the relationship between established organisational foundations and emerging digital possibilities.

RQ1b: What strategic approaches and DE mechanisms do they employ?

Manuscript 1 identifies a set of DE mechanisms through which organisations attempt to make these positions workable in practice. These include ring-fencing experimental spaces, staging change through parallel-run periods, reframing legacy systems as anchors rather than barriers, and creating forums for teams to jointly negotiate risk and innovation. Rather than resolving the underlying paradox, these mechanisms enable organisations to maintain a workable relationship between stability and innovation as transformation conditions evolve. Where such mechanisms are weak or inconsistently applied, organisations are more likely to rely on piecemeal workarounds that leave underlying tensions unresolved.

RQ2a: How do intra-organisational misalignments contribute to value attenuation in digital service coordination?

Manuscript 2 identifies structural, metric, and cultural-interpretive misalignments as interconnected organisational frictions that can progressively constrain resource integration across nested service exchanges. These misalignments may accumulate while service activities continue, manifesting in delayed decision-making, duplicated effort, inflexible workarounds, conflicting performance priorities, and divergence between digital strategies and day-to-day coordination. When such frictions persist under conditions of institutional incoherence, actors face increasing difficulty integrating resources in ways that enable value realisation within particular exchanges and/or facilitate its subsequent realisation across interconnected exchanges.

The study conceptualises this process as value attenuation: the progressive weakening of value-realisation capacity arising as persistent organisational misalignments constrain resource integration. Importantly, attenuation does not constitute an intermediate value state or determine how a particular beneficiary will experience value. Organisational actors may themselves be beneficiaries within internal service exchanges, while resource-integration processes within those exchanges may simultaneously condition the resources and opportunities available for value realisation by subsequent internal or external beneficiaries. Value attenuation therefore describes a process affecting value-realisation capacity rather than the valence of a particular value outcome.

RQ2b: Under what conditions, and through what mechanisms, may AI-enabled systems support or constrain organisational responses to coordination breakdowns during digital transformation?

Manuscript 2's findings show that AI-enabled systems may participate in addressing coordination frictions by altering informational visibility, temporal coordination, and the resources available for shared interpretation. The study conceptualises this functional role as a bridging operant resource (BOR). BOR does not describe AI as a homogeneous technological category; rather, it describes a bridging function that a resource may perform within a particular socio-technical configuration. AI-enabled systems can therefore support coordination by aggregating dispersed information, identifying patterns or anomalies, prioritising emerging issues, and generating inputs that organisational actors integrate with human expertise and other resources.

This bridging role is contingent rather than inherent. AI-enabled systems do not independently create institutional coherence or determine value outcomes. Their effects depend on data quality, governance arrangements, performance logics, human interpretation, and surrounding work practices. Across coherence practices such as *Shared Signals, Temporal Orchestration, Augmented Integration*, and *Informed Narratives*, AI-enabled systems may function as BORs where their capabilities help actors connect fragmented coordination conditions. Depending on their socio-technical configuration and use, they may therefore mitigate or intensify the processes through which value-realisation capacity weakens.

Collectively, the research questions show that digital transformation outcomes cannot be attributed to technological adoption or any single organisational condition. Strategic responses to tradition–innovation tensions establish important conditions for change; organisational arrangements influence how resources can subsequently be integrated; and socio-technical coordination practices shape how actors respond as those conditions evolve. The two studies therefore converge on a processual explanation in which value-realisation capacity is continually shaped by the interaction of strategic positioning, organisational coordination, and socio-technical resource integration. Section 6.2 develops this relationship into an integrated thesis-level explanation of digital transformation outcomes.

6.2. An Integrated Explanation of Digital Transformation Outcomes

The preceding section addressed the research questions through the findings of the two manuscripts. This section moves beyond those individual findings to consider how strategic responses to paradoxical tensions, organisational misalignments, and socio-technical coordination practices interact during digital transformation. Rather than representing separate or sequential influences, these dimensions are understood as interconnected conditions that shape actors' capacity to integrate resources and facilitate value realisation across service exchanges.

At the strategic level, Manuscript 1 shows that digital transformation does not require organisations to abandon established organisational foundations in favour of innovation. Rather, organisations occupy different positions along a tradition–innovation continuum and continually negotiate competing demands for stability and change. These positions influence how transformation priorities are interpreted, which organisational arrangements are preserved or

altered, and how tensions associated with digital change are managed. Dynamic equilibrium mechanisms enable organisations to maintain a workable relationship between competing demands without resolving the underlying paradox. Strategic positioning therefore establishes important conditions within which digital transformation proceeds but does not itself determine subsequent value outcomes.

Regarding the organisational dimension, Manuscript 2 shows how the conditions for resource integration may become progressively constrained as structural, metric, and cultural-interpretive misalignments persist. These frictions may coexist with continued organisational activity: digital initiatives can progress, systems can operate, and service work can continue even as actors experience increasing difficulty integrating resources coherently across interconnected service exchanges. Value attenuation captures this process of progressive weakening in value-realisation capacity. It therefore provides a means of explaining how persistent organisational misalignment becomes consequential for value formation without assuming that misalignment itself constitutes a particular value outcome or that value has necessarily been destroyed.

The socio-technical dimension explains how organisational actors respond to these evolving coordination conditions. *Shared Signals, Temporal Orchestration, Augmented Integration*, and *Informed Narratives* represent recurrent coherence practices through which actors mobilise human, organisational, informational, and technological resources to sustain or recalibrate coordination. Within these practices, AI-enabled systems may function as bridging operant resources where their capabilities connect otherwise fragmented informational, temporal, or interpretive conditions. This role is contingent rather than inherent: AI-enabled systems may support actors in recognising and responding to emerging misalignments but may also reinforce fragmentation where they reproduce siloed data, conflicting performance logics, or poorly coordinated work practices. Technology therefore participates in, rather than independently determines, the organisational processes through which resource integration is sustained or constrained.

Importantly, these three dimensions should not be interpreted as a linear sequence in which strategic positioning produces organisational alignment, which then produces a single value outcome. Their relationships are recursive and interconnected. Strategic responses to stability–innovation tensions shape the organisational conditions within which resources are subsequently mobilised, while emerging coordination frictions may themselves require strategic

priorities and organisational arrangements to be reconsidered. Similarly, socio-technical coherence practices may alter the visibility and interpretation of organisational conditions, enabling actors to recalibrate how resources are integrated. Digital transformation is therefore characterised by continuing interaction among strategic choices, organisational arrangements, and situated resource-integration practices rather than by progression through discrete transformation stages.

This integrated explanation also clarifies the thesis's treatment of value. Service organisations comprise interconnected service exchanges in which different actors may occupy beneficiary and provider roles depending on the exchange under consideration. Organisational actors may therefore realise value within internal service exchanges without direct interaction with an external customer. At the same time, resource-integration processes within those exchanges may condition the resources and opportunities available for value realisation across other internal and external service exchanges. Internal and external value-realisation episodes are therefore analytically distinguishable but interconnected. Value realised within one exchange does not determine value in another, because value remains contextually and phenomenologically determined by the beneficiary in each particular service context.

The thesis-level explanation consequently concerns value-realisation capacity rather than an organisationally determined value trajectory. Strategic positioning, organisational coordination, and socio-technical resource integration shape the conditions through which actors can integrate resources in ways that enable value realisation within particular exchanges and/or facilitate its realisation across interconnected exchanges. Persistent misalignment can progressively weaken this capacity through value attenuation, while recurrent coherence practices may sustain, recalibrate, or help restore conditions for resource integration. These processes do not determine how any particular beneficiary will ultimately experience value; rather, they explain how the intra-organisational conditions supporting value realisation can strengthen, weaken, and change during digital transformation.

Taken together, the two manuscripts therefore provide complementary explanations operating at different but interconnected analytical dimensions. Manuscript 1 explains how organisations navigate the persistent strategic paradox of maintaining established foundations while pursuing digital innovation. Manuscript 2 explains how organisational and socio-technical coordination conditions shape resource integration and value-realisation capacity as

transformation unfolds. Their integration suggests that digital transformation outcomes cannot be adequately explained through technological adoption, strategic positioning, or organisational alignment in isolation. Instead, they are shaped via ongoing interaction among strategic responses to paradoxical demands, evolving organisational arrangements, and the socio-technical practices through which actors mobilise resources across interconnected service exchanges.

6.3. Theoretical Contributions

This thesis contributes to marketing and service research by explaining how intra-organisational conditions shape resource integration and value-realisation capacity during digital transformation. Rather than treating digital transformation principally as technological adoption or a series of discrete technology projects, the findings direct attention to the strategic, organisational, and socio-technical conditions through which transformation is enacted over time. Across the two studies, three related theoretical contributions emerge: 1) an explanation of how strategic positioning and DE mechanisms inform organisational responses to persistent tradition–innovation tensions; 2) a process explanation of how persistent organisational misalignment may progressively weaken value-realisation capacity; and 3) an account of the socio-technical practices and contingent bridging operant functions through which actors may maintain or recalibrate institutional coherence during digital transformation. Together, these contributions provide a multi-dimensional explanation of how internal organisational conditions shape digital transformation without assuming that organisations themselves determine value outcomes.

The first contribution concerns the relationship between strategic positioning and paradox navigation during digital transformation. Building on established paradox research, Manuscript 1 differentiates four strategic orientations towards tradition–innovation tensions and identifies theoretically informed pathways through which organisations may recalibrate their responses. By connecting the descriptive typology of strategic positions with the prescriptive typology of potential DE mechanisms, the study provides a more differentiated explanation of how established insurance organisations may continually navigate competing demands for operational continuity and digital innovation. These positions reflect different ways of accommodating competing demands and are made workable through DE mechanisms that

allow organisations to continually recalibrate the relationship between established organisational foundations and emerging digital possibilities. The contribution therefore lies not in suggesting that stability and innovation can be permanently balanced, but in showing how different strategic positions and associated mechanisms provide alternative ways of living with an enduring paradox during digital transformation. In regulated service settings, where reliability, compliance, legacy infrastructure, and innovation pressures coexist, this provides a more differentiated explanation of how organisations navigate digital change.

The second contribution concerns value attenuation as a mid-range process concept explaining how persistent intra-organisational misalignment may progressively constrain resource integration and weaken value-realisation capacity. Existing SDL and value research provides increasingly nuanced and processual accounts of value co-creation, value co-destruction, resource misintegration, diminution, and recovery. Value attenuation builds on rather than replaces these perspectives by addressing a more specific analytical problem: how structural, metric, and cultural-interpretive misalignments can accumulate across interconnected service exchanges while organisational activity continues. Attenuation therefore does not constitute an intermediate value state between co-creation and co-destruction, nor does it prescribe the value ultimately experienced by a beneficiary. Instead, it describes deterioration in the capacity through which actors integrate resources in ways that enable value realisation within particular exchanges and/or facilitate its realisation across interconnected exchanges. Furthermore, this also provides greater specificity to the relationship between resource integration and institutional coordination within organisations.

The third contribution concerns the socio-technical micro-foundations of institutional coherence and the contingent bridging functions that technological resources may perform within them. Manuscript 2 identifies *Shared Signals, Temporal Orchestration, Augmented Integration*, and *Informed Narratives* as recurrent socio-technical coherence practices through which actors respond to coordination frictions by adjusting informational, temporal, and interpretive conditions. These practices provide micro-foundational insight into how institutional coherence is enacted and recalibrated rather than treating coherence as an inherent or stable organisational property. In SDL terms, this connects actors' integration of resources with the institutional arrangements through which value co-creation is coordinated, while retaining the principle that value remains contextually and phenomenologically determined by beneficiaries.

Internal organisational actors may themselves be beneficiaries within particular service exchanges, while those exchanges may simultaneously condition resources and opportunities for value realisation elsewhere in the service system.

Within this broader socio-technical contribution, Manuscript 2 also specifies how AI-enabled systems may perform bridging operant functions in service coordination. Rather than treating AI as a homogeneous technological category or assuming that its capabilities directly produce value, Manuscript 2 conceptualises a bridging operant resource (BOR) according to the function a resource performs within a particular socio-technical configuration. AI-enabled systems may perform this bridging function when capabilities such as data aggregation, pattern recognition, anomaly detection, prioritisation, or recommendation help organisational actors connect fragmented informational, temporal, or interpretive conditions. This conceptualisation extends attention beyond prominent customer-facing and automation applications of AI by showing how AI-enabled resources may participate in intra-organisational resource integration and coordination.

Importantly, the bridging function is contingent rather than inherent to AI. Whether an AI-enabled system operates as a BOR depends on how its capabilities are configured, governed, interpreted, and incorporated into organisational practices. AI-generated outputs become organisationally consequential when actors integrate them with human expertise and other resources within situated coordination practices. Under supportive conditions, these resources may assist actors in recognising and responding to emerging misalignments; under fragmented institutional conditions, they may reproduce or intensify existing coordination problems. This contributes to service research by locating AI's role within socio-technical processes of resource integration rather than attributing independent agency or value-creating capacity to the technology itself.

Collectively, these contributions provide an integrated explanation of digital transformation that operates across interconnected analytical dimensions without collapsing them into a single causal sequence. Manuscript 1 explains how strategic responses to persistent paradoxical demands configure important conditions for digital change. Manuscript 2 explains how organisational misalignment may progressively constrain resource integration and how actors mobilise human, organisational, and technological resources in response. The thesis therefore contributes a processual account in which strategic positioning, organisational coordination, and

socio-technical resource integration continually interact as digital transformation unfolds. Its contribution is not to propose an alternative theory of value, but to provide greater specificity regarding the intra-organisational conditions and processes through which actors' capacity to realise or facilitate value across interconnected service exchanges may strengthen, weaken, or be recalibrated over time.

6.4. Practical Implications

This thesis translates the findings of the two empirical studies into practical ways for leaders and practitioners to diagnose and respond to digital transformation challenges. Rather than prescribing a universal sequence of implementation steps, the research provides concepts and patterns that can help practitioners recognise recurring organisational conditions, understand their implications for coordination, and intervene more deliberately as transformation unfolds.

The tradition–innovation typology developed in Manuscript 1 provides a way for leaders to evaluate how their organisation is positioned relative to established systems and digital change. Practitioners in regulated service sectors frequently face competing demands to maintain the reliability of long-established systems while responding to pressure for continued innovation. The typology reframes this tension as a set of identifiable strategic positions rather than a choice between preserving legacy arrangements and pursuing transformation. For organisations positioned more strongly toward tradition, digital initiatives may be layered onto inflexible core systems, innovation activities may become separated from established operations, and customer-facing changes may outpace adjustments to supporting processes. Organisations positioned more strongly toward innovation face different challenges, including legacy bottlenecks, governance and compliance pressures, and competing demands on staff responsible for maintaining service continuity while implementing change. The practical value of the typology therefore lies less in categorising organisations than in helping leaders recognise the tensions associated with their current position and identify appropriate DE mechanisms for managing them.

The concept of value attenuation provides a complementary diagnostic lens for identifying situations in which persistent organisational frictions may be progressively weakening value-realisation capacity. Digital transformation does not always fail through a visible breakdown. Initiatives may continue, systems may operate, and services may still be delivered while

structural, metric, and cultural-interpretive misalignments make resource integration increasingly difficult. In practice, these conditions may be visible through delayed decisions, duplicated effort or tooling, fragmented ownership, conflicting performance measures, recurring workarounds, or divergent interpretations of transformation priorities and customer centricity. Rather than treating such symptoms simply as implementation difficulties, leaders can use them as indicators that the conditions supporting coordinated resource integration require attention.

This perspective is particularly relevant to low-touch, process-intensive services such as insurance and banking, where external customers may interact directly with only a small part of an extended service process. Much of the resource integration supporting service provision occurs through interconnected internal exchanges involving multiple organisational actors. Persistent internal misalignment may therefore constrain value-realisation capacity without immediately producing a visible customer-facing failure. Monitoring internal coordination conditions alongside conventional customer and transformation performance measures may consequently provide earlier indications of emerging problems than relying solely on externally observable outcomes.

The socio-technical coherence practices identified in Manuscript 2 provide practical patterns through which organisations may respond to these conditions. Shared Signals can help establish sufficiently common informational reference points across functions; Temporal Orchestration can assist actors in coordinating interdependent activities occurring at different speeds or time horizons; Augmented Integration can support the combination of technological resources with human expertise and judgement; and Informed Narratives can help actors develop sufficiently shared interpretations of emerging conditions and priorities. These practices should not be treated as standardised interventions or as mechanisms that eliminate organisational misalignment. Rather, they provide adaptable patterns through which actors can continually surface, interpret, and respond to coordination frictions as organisational conditions change.

AI-enabled systems should similarly be evaluated not only according to their capacity to automate tasks or improve efficiency, but also according to the coordination functions they may perform. Capabilities such as aggregating dispersed information, detecting anomalies, identifying patterns, prioritising emerging issues, or generating recommendations may enable AI-supported systems to perform a bridging operant function where they help actors connect

otherwise fragmented informational, temporal, or interpretive conditions. The practical implication is not that organisations should deploy AI as a general solution to misalignment. Its contribution depends on the quality and accessibility of underlying data, governance arrangements, performance measures, human interpretation, and integration with surrounding work practices. Leaders should therefore consider not only what an AI-enabled system can technically perform, but how its outputs will be interpreted, integrated with other resources, and translated into coordinated action.

Finally, the findings suggest that internal alignment should be approached as an ongoing organisational accomplishment rather than a one-time transformation objective. Changes in technologies, organisational priorities, performance measures, regulatory demands, and actor interpretations continually alter the conditions under which resources are integrated. Organisations therefore need recurring opportunities to identify emerging frictions, reconsider assumptions, and recalibrate coordination practices. From this perspective, digital transformation involves more than implementing new technologies or achieving a temporary state of alignment. It also requires sustained organisational attention to recognising and responding to changing coordination conditions over time.

6.5. Limitations and Future Research

While Chapters 4 and 5 discuss limitations specific to each manuscript, several thesis-level limitations define the boundaries of the integrated explanation developed in this research and suggest directions for future research. These relate principally to the temporal design of the research, the empirical context and participant perspectives, the intra-organisational boundary of the analysis, and the evolving nature of AI-enabled coordination.

First, the cross-sectional qualitative design limits the extent to which the relationships integrated in Chapter 6 can be observed longitudinally. Manuscript 1 identifies strategic positions along the tradition–innovation continuum and associated DE mechanisms, while Manuscript 2 identifies processes through which persistent organisational misalignment may constrain resource integration and progressively weaken value-realisation capacity. The thesis integrates these findings at a conceptual level but does not establish a temporal or causal sequence between them. Future longitudinal research could follow organisations through extended periods of digital transformation to examine how strategic positioning changes over time, whether and

how these changes interact with emerging organisational misalignments, and how value-realisation capacity weakens, stabilises, or recovers as coordination conditions evolve. This research approach could also examine whether particular DE mechanisms have implications for the subsequent development or mitigation of organisational coordination frictions.

Second, the empirical context establishes important boundaries around the transferability of the findings. The research draws predominantly on experienced practitioners operating within service-intensive organisations in Aotearoa New Zealand and Australia, with regulated and process-intensive settings, particularly insurance, providing an important empirical context. These settings make tensions between stability and innovation, legacy infrastructure, regulation, cross-functional interdependence, and internal coordination particularly visible, but the findings should not be assumed to transfer unchanged to other institutional environments. Comparative research across countries, industries, organisational sizes, and regulatory regimes could examine whether the identified paradox positions, misalignment patterns, attenuation processes, and coherence practices manifest differently under alternative institutional conditions. The objective would be analytical extension and specification of boundary conditions rather than statistical replication.

Third, the research relies primarily on the accounts of senior practitioners involved in digital transformation. These participants provided valuable cross-functional perspectives because their roles often spanned strategy, technology, operations, and customer-facing functions, but their accounts necessarily reflect particular organisational positions and interpretations. Other actors may experience the same transformation processes differently. Future research could incorporate perspectives from frontline employees, middle managers, customers, external partners, regulators, and technology providers to examine how coordination conditions and value-realisation processes are understood across different positions within service systems. Such work would be particularly useful for examining how value realised or constrained within one service exchange relates to, but remains analytically distinct from, value experienced by beneficiaries in other interconnected exchanges.

Fourth, the thesis deliberately foregrounds intra-organisational conditions. This focus enabled detailed examination of strategic tensions, organisational misalignment, resource integration, and socio-technical coordination, but service ecosystems extend beyond organisational boundaries. Customers, suppliers, technology providers, regulators,

intermediaries, and other actors participate in resource integration and value formation. Future research could therefore investigate how attenuation processes extend across organisational boundaries, whether coordination frictions propagate between interconnected actors, and how coherence practices operate within multi-actor service ecosystems. This would also provide an opportunity to examine more directly the relationship between changes in intra-organisational value-realisation capacity and the phenomenologically determined value experienced by different beneficiaries across the wider service system.

Fifth, AI represents a rapidly evolving element of the empirical and theoretical context. The interviews captured practitioners' experiences and expectations of AI-enabled coordination during a particular period of technological development, and the study examined AI primarily according to the coordination functions described by participants rather than systematically comparing specific architectures or forms of AI. The bridging operant resource concept should therefore be understood as a functional conceptualisation rather than a claim that AI constitutes a homogeneous category of resource. Future research could compare predictive, recommendation, generative, and increasingly agentic AI systems to examine whether and how different configurations perform bridging functions within organisational coordination. Particular attention could be given to how data quality, governance, explainability, autonomy, human oversight, and organisational performance logics influence whether AI-enabled systems mitigate or intensify coordination frictions.

Finally, the concepts developed in this thesis require further empirical examination and theoretical refinement. Value attenuation is developed abductively as a mid-range process concept from recurring practitioner accounts of accumulated organisational frictions and constrained resource integration; it was not directly observed longitudinally or operationalised as a measurable construct. Future studies could investigate its empirical indicators and boundary conditions, including whether patterns such as increasing decision-cycle times, repeated rework, cross-functional escalation, fragmented ownership, or conflicting performance measures provide useful indicators of weakening value-realisation capacity. Similarly, the four socio-technical coherence practices identified in Manuscript 2 warrant examination across different organisational contexts to determine how they are enacted, combined, and adapted and under what conditions they support the maintenance or recalibration of resource integration.

Together, these directions would enable future research to test, refine, and extend the thesis's central explanation across time, organisational levels, technological configurations, and service-system boundaries. In particular, longitudinal and multi-actor research could provide greater insight into how strategic positioning, organisational coordination, and socio-technical resource integration interact as digital transformation unfolds, while preserving the distinction between organisational conditions for value realisation and the value phenomenologically determined by beneficiaries within particular service exchanges.

6.6. Concluding Remarks

This research journey was motivated by over two decades of experience in commercial digital environments, where persistent patterns highlighted the absence of a holistic, strategic perspective. Organisations would invest heavily in digital transformation initiatives that appeared successful or well-executed on the surface yet failed to deliver the sustained organisational improvements and anticipated benefits promised. They struggled to translate visible changes into sustained operational improvements or into stable, coherent value over time. Systems were implemented, projects went live, and customer-facing changes were delivered, yet siloed teams, delayed decisions, conflicting metrics, legacy dependencies, and fragmented organisational arrangements continued to constrain what those initiatives could achieve. These conditions were often treated as the unavoidable friction of transformation rather than as phenomena requiring explanation.

Therefore, this thesis seeks to provide such an explanation. The findings show that digital transformation in service organisations cannot be understood through technological adoption alone. Manuscript 1 demonstrates how organisations navigate persistent tensions between established organisational foundations and digital innovation through different strategic positions and DE mechanisms. Manuscript 2 shows how persistent structural, metric, and cultural-interpretive misalignments can constrain resource integration and progressively weaken value-realisation capacity, while organisational actors respond through recurrent socio-technical coherence practices in which AI-enabled systems may perform contingent bridging operant functions.

Considered together, these findings shift attention toward the organisational conditions through which digital transformation unfolds. Strategic positioning, organisational coordination,

and socio-technical resource integration are not discrete stages of transformation, but interconnected dimensions that continually shape the conditions under which actors mobilise resources. Digital transformation therefore involves ongoing organisational work: navigating persistent tensions, recognising emerging misalignments, coordinating across organisational boundaries, and continually recalibrating how human, organisational, and technological resources are integrated.

The thesis also clarifies what this means for value in service organisations. Internal organisational actors may themselves realise value as beneficiaries within particular service exchanges, while those exchanges may simultaneously condition the resources and opportunities available for value realisation elsewhere in the service system. Internal and external value-realisation episodes are therefore analytically distinguishable but interconnected. The organisation does not determine the value ultimately experienced by a beneficiary; rather, its internal conditions shape actors' capacity to integrate resources in ways that enable value realisation within particular exchanges and facilitate its realisation across interconnected exchanges.

The broader contribution of this thesis is therefore to make these often less-visible internal conditions more explicit within explanations of digital transformation in service organisations. Value attenuation provides a way of recognising when persistent organisational misalignment is progressively weakening value-realisation capacity even while organisational activity continues. The tradition–innovation typology and DE mechanisms provide a way of understanding the strategic tensions within which transformation occurs. The socio-technical coherence practices and the concept of bridging operant functions help explain how actors may mobilise human and technological resources in response to evolving coordination conditions. None of these concepts provide a universal prescription for successful transformation on their own. Collectively, they provide a more granular language for understanding how apparently viable digital initiatives may strengthen or weaken organisational coordination, and why continual recalibration may be necessary as they become embedded in practice.

Ultimately, this thesis argues that understanding digital transformation requires looking beyond the technologies organisations adopt and the visible interfaces through which customers encounter them. Equally important are the organisational conditions through which actors interpret competing demands, integrate resources, and coordinate service work over time. By

making those conditions more visible, the thesis provides a foundation for further research into how service organisations can sustain value-realisation capacity while navigating continuing technological and organisational change.

Finally, the journey from commercial digital work to doctoral research was driven by a desire to understand and articulate something recognised intuitively in practice but difficult to name theoretically. This thesis represents an attempt to bridge that gap by taking the lessons that decades of commercial experience have revealed and translating them into a form useful both for scholarship and for practitioners still navigating these challenges every day.

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Appendices

Appendix 1: Artificial Intelligence Declaration

Specify the chapter number(s) in your research proposal/research component where AI was used.	
Chapter number(s):	Chapter's 1, 2, 3 & 6
Briefly explain why the AI tool was used (e.g., idea generation, summarization, data analysis, image creation, etc.).	
Purpose of AI Use:	While I have listed many AI tools, I have predominately used them in the following capacities: 1. The main use of the LLM's listed was to brainstorm ideas when writing Manuscript 2 and the thesis. For example, I would use ChatGPT to analyse my thesis chapter, section, or paragraph to highlight any errors with idea structure and articulation, review the content relative to the goal of the chapter, check for idea repetition, and check any obvious issues with the logic of my arguments. 2. I used AI tools for grammar, spelling, and to check for the appropriate use of specific words (Grammarly, Studiosity, Scribbr). Relative to the use of the LLM's above, I have been encouraged to utilise these tools from various AUT members for exactly the listed purposes. 3. I used multiple tools simultaneously analyse my arguments to see if they produced the same AI feedback. I used this to sense-check that what I was writing would be interpreted in the intended way. For instance, if I was unsure about how a section of the thesis was going to be perceived, I would then use the AI tools (ChatGPT, Deep Seek, Gemini, CoPilot, and Perplexity) side-by-side to analyse the writing draft section using the same prompt. 4. The AI tools were used to help organise and keep track of the articles for the literature review for the manuscript and for the thesis. As the thesis journey had begun before publicly accessible AI tools were available, I had amassed a large collection of possible review articles to then analyse and interpret. 5. I utilised AI (Scribbr) to keep a list of the references I used as the sheer number of edits to both the manuscripts and the thesis were becoming increasingly difficult to ensure each citation related to a listed resource.
Clearly state the AI tools used.	
AI Tool(s) Used:	1. Grammarly 2. Scribbr 3. ChatGPT 4. Perplexity 5. Deep Seek 6. Gemini 7. SciSummary 8. Studiosity 9. CoPilot
Exact prompts or queries entered into the AI tool. Include all relevant variations.	
Prompts Used:	See below
A summary or description of the AI-generated output. (Optional: attach output in an appendix.)	
Output Received:	See below
Describe how the AI output was used, edited, or transformed.	
Post-AI Processing Methods:	1. **Writing** I don't consider myself a natural writer so the real-time feedback that AI provides on my writing helped to ensure I was articulated my ideas well enough to be understood by the reader (human or other). For example, Grammarly provided AI generated recommendations for my sentence structure and the writing in

general. These recommendations were used to highlight errors in the perceived meaning but were incorporated at my discretion.
*Of note, there was no AI-generated text inserted directly into the thesis and any AI output was viewed as part of an ideation process.

2. **AI as an assistant**
   Regarding point 3 above, the post-prompt processing was related to whether the various LLM's used had similar output, which would then provide a confirmation of sorts that the issues outputted where not an AI hallucination and were of a significant enough level to warrant attention.

3. **Literature organisation**
   In reference to point 4 above, I used the literature review tools as a repository for the article which could then show the authors, journal, published date, and summaries in table form. This processing was used to ensure I didn't double up on some papers, could quickly see the list of articles by date, and use the summaries to determine if the article fit my research. Of note, these tools for this literature review purpose weren't available at the start of my PhD.

4. **References**
   Referring to point 5 above, the tool Scribbr was used to store all the article used and auto generated the DOI for each article. This tool enabled me to check if a reference was found using the search engine within. If it couldn't find the article or resource's DOI or other identification element, then I would review its use in the research. No AI-generated references were used without verifying their authenticity. Further, the process of collecting articles for the literature used in both manuscripts and the wider thesis began before LLM's like ChatGPT were available. All references listed have been read and kept for future reference. SciSummary was used as a central store of the articles and Scribbr was used as a tool to further validate any source used in the thesis.

5. **Data Analysis**
   The data analysis process did not have input from the AI tools listed above. The data was manually analysed using MS Excel and Otter's transcription functions. Otter is a transcription service that, after testing from previous interview recording, performed best when transcribing Kiwi accents. This was an issue when transcribing the previous recordings, so Otter was selected due to its superior transcribing facilities. Furthermore, Otter allowed to easily edit that transcriptions when listening to ensure any anomalies in what was transcribed were addressed. For example, the accent issue resulted in incorrectly transcribed text, and this had to be edited which was done manually (through the Otter interface) for each interview.

   Data Analysis notes:
   - The interpretation, idea development, and argument formation was my own work.
   - The forming of the thesis ideas and arguments began before publicly available LLM's were available for use.

Articulate the purpose for which the prompt was used (supported by examples) here:

The main purpose of AI use was as an assistant when writing the thesis. It was an efficient way to get real-time feedback for my writing as both my supervisors were away at various times during the writing process which began in earnest during the Christmas period 2025/2026.

Below are example prompts used in Perplexity and Deep Seek to analyse the initial drafts of the Limitations and Future Research section (The thesis draft was uploaded to provide context):

This is what I have for Limitations and Future Research so far:

My concerns are:
1. The discussion is fragmented and repetitive
2. The points aren't as clear as they could be
3. There may be cross-over with the Limitations and Future Research content in Chapters 4 & 5
4. Each limitation and associated future research direction is not well articulated enough

Perplexity Prompt

This is what I have for Limitations and Future Research so far:

My concerns are:
1. The discussion is fragmented and repetitive
2. The points aren't as clear as they could be
3. There may be cross-over with the Limitations and Future Research content in Chapter's 4 & 5
4. Each limitation and associated future research direction is not well articulated enough

"While the research makes significant contributions to the scholarship on DT, it was conducted in New Zealand which is a small market by global standards. Furthermore, the New Zealand markets' dominant business model is SME's so extrapolating the findings to larger global corporations may seem less applicable on the surface. However, the SME model coupled with a willingness and flexibility to engage with other businesses in a partnership ecosystem-type relationship arguably represents larger organisations. Future research could, therefore, look at DT from a large global market perspective by replicating the studies to ascertain if market size and the increased competition are significant factors.
One limitation noted by the participants of this research, along with casual conversations with practitioners, was the timeliness of published research relative to the speed of organisational and digital change. Practitioners lamented the relatively slow process that accompanies the publishing of research findings compared with the "fast paced" nature of digital change initiatives. By the time service-related research is published in reputable journals, the environment for which that research applies to has already moved on rendering the insights difficult to apply in a real-world scenario. Future research endeavours could address this gap by implementing more project-based methods that extract insights and draw conclusion in a real-time manner. Moreover, this limitation is related to a broader issue where academia and industry are disconnected under the business discipline compared to other areas. For example, the scientific community have strong connections between research and business often applying a project or case-study model to research outcomes. This is further highlighted in healthcare where real-time research is applied to current patients and hospitals.
While this research draws insights regarding the socio-technical dynamics with intra-organisational DT initiatives from a holistic viewpoint, factors relating to individual employees and team members' cultural make-up was not explored. This area was beyond the overarching scope of the topic, but it is nonetheless important. Cultural differences could exist at varying levels between how one individual interacts with various internal digital tools compared to other individuals within an organisation. This could impact the design and usability of the digital tools employed within an organisation from a day-to-day perspective. Future research could address this limitation through longitudinal studies that determined the variance with how certain cultures use the same digital tools. "

Deep Seek Prompt

This is what I have for Limitations and Future Research so far:

My concerns are:
1. The discussion is fragmented and repetitive
2. The points aren't as clear as they could be
3. There may be cross-over with the Limitations and Future Research content in Chapter's 4 & 5
4. Each limitation and associated future research direction is not well articulated enough

"While the research makes significant contributions to the scholarship on DT, it was conducted in New Zealand which is a small market by global standards. Furthermore, the New Zealand markets' dominant business model is SME's so extrapolating the findings to larger global corporations may seem less applicable on the surface. However, the SME model coupled with a willingness and flexibility to engage with other businesses in a partnership ecosystem-type relationship arguably represents larger organisations. Future research could, therefore, look at DT from a large global market perspective by replicating the studies to ascertain if market size and the increased competition are significant factors.
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Example Output - Perplexity:

Here are structured recommendations designed to help you improve clarity, cohesion, and articulation in your Limitations and Future Research section while maintaining your academic voice and intent:

---

1. Strengthen Structural Coherence

- *Use a clear pattern: Present each limitation immediately followed by its corresponding future research direction. This "paired structure" (Limitation → Future Research) prevents fragmentation and helps readers follow your argument logically.*
- *Apply signposting: Begin each subsection with a clear topic sentence (e.g., "A key contextual limitation concerns the research's setting within the New Zealand market…"). Conclude each with a transition line that signals the shift to the next limitation.*

- *Group related ideas: Avoid scattering discussions about the same limitation (e.g., market size, timeliness of research) across different paragraphs.*

2. Eliminate Repetition and Overlap

- *Cross-reference chapters: Identify duplication with content from earlier limitation discussions in Chapters 4 and 5. Condense or recontextualize duplicated points so this section synthesizes and generalizes previous findings rather than rehashing them.*
- *Remove redundant qualifiers: Phrases like "arguably represents larger organisations" can be condensed to maintain focus on the main point.*

3. Clarify the Limitation-Future Research Link

- *Explicitly connect the two: When discussing a limitation, conclude with a sentence that naturally transitions to how future studies could address it.*
  Example: "Given these constraints, future research could test whether..."
- *Use consistent phrasing: Repetition of structures such as "Future research could…" or "Subsequent studies might explore…" creates rhythm and clarity without sounding formulaic.*
- *Be specific: Indicate the type of study (e.g., comparative, longitudinal, case-based) and rationale for why it's appropriate.*

4. Improve Conceptual Focus

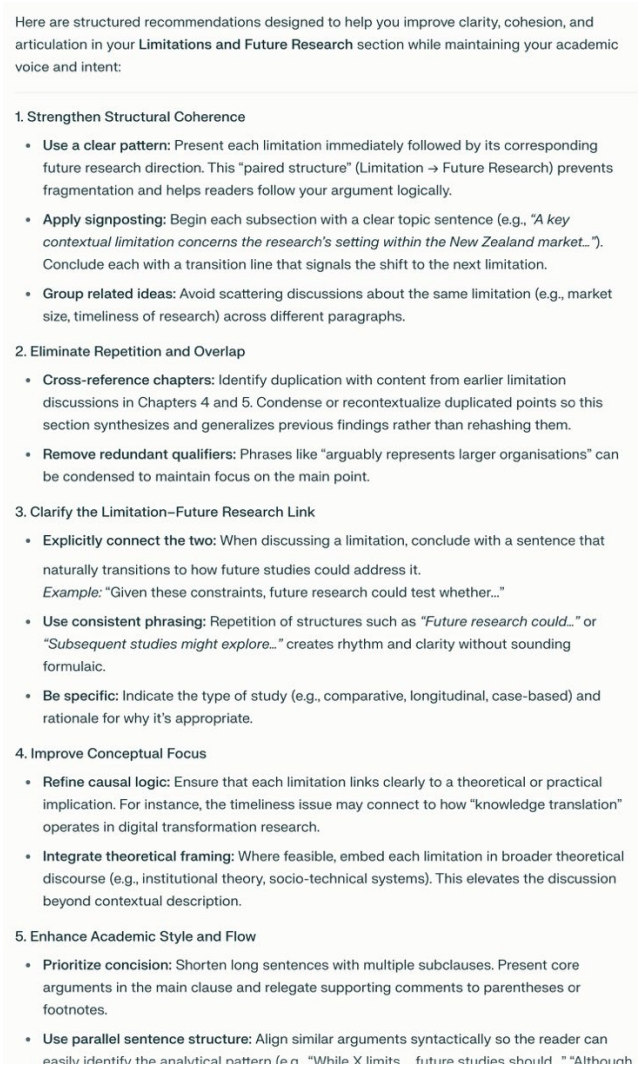
- *Refine causal logic: Ensure that each limitation links clearly to a theoretical or practical implication. For instance, the timeliness issue may connect to how "knowledge translation" operates in digital transformation research.*
- *Integrate theoretical framing: Where feasible, embed each limitation in broader theoretical discourse (e.g., institutional theory, socio-technical systems). This elevates the discussion beyond contextual description.*

5. Enhance Academic Style and Flow

- *Prioritize concision: Shorten long sentences with multiple subclauses. Present core arguments in the main clause and relegate supporting comments to parentheses or footnotes.*
- *Use parallel sentence structure: Align similar arguments syntactically so the reader can easily identify the analytical pattern (e.g., "While X limits..., future studies should..." "Although Y constrains..., researchers could...").*
- *Avoid conversational phrasing: Recast colloquial terms like "fast-paced" and "rendering the insights difficult to apply" into more formal equivalents such as "rapidly evolving" and "diminishing the practical applicability of findings."*

6. Integrate with Broader Thesis Context

- *Align scope: Verify that each limitation corresponds to the study's aims and methods, avoiding inclusion of peripheral issues.*
- *Position strategically: Conclude the section with a paragraph synthesizing how addressing these limitations could extend the study's core contributions—bridging to your final conclusion.*



Here are structured recommendations designed to help you improve clarity, cohesion, and articulation in your **Limitations and Future Research** section while maintaining your academic voice and intent:

1. Strengthen Structural Coherence

- **Use a clear pattern:** Present each limitation immediately followed by its corresponding future research direction. This "paired structure" (Limitation → Future Research) prevents fragmentation and helps readers follow your argument logically.
- **Apply signposting:** Begin each subsection with a clear topic sentence (e.g., *"A key contextual limitation concerns the research's setting within the New Zealand market..."*). Conclude each with a transition line that signals the shift to the next limitation.
- **Group related ideas:** Avoid scattering discussions about the same limitation (e.g., market size, timeliness of research) across different paragraphs.

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- **Cross-reference chapters:** Identify duplication with content from earlier limitation discussions in Chapters 4 and 5. Condense or recontextualize duplicated points so this section synthesizes and generalizes previous findings rather than rehashing them.
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- **Use parallel sentence structure:** Align similar arguments syntactically so the reader can easily identify the analytical pattern (e.g., "While X limits ... future studies should..." "Although

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Example Output - Deep Seek:

ANALYSIS OF THE DRAFT:
Fragmented and Repetitive: *The draft has three paragraphs, each discussing a different limitation and future research. However, the flow between them is weak, and there is some repetition in the way the limitations are presented (e.g., each paragraph starts with a limitation and then a future research direction). The structure could be more cohesive.*

Clarity: *The points are made, but the language could be more precise and academic. For example, the first paragraph uses "so extrapolating the findings ... may seem less applicable on the surface" which is tentative. The second paragraph uses casual language like "lamented" and "fast paced". The third paragraph uses "cultural make-up" which is vague.*

Cross-over with Chapters 4 & 5*: The user is concerned about duplication. In a thesis, the Limitations and Future Research in Chapter 6 should be overarching, while each individual chapter (especially for a thesis-by-publication) might have its own limitations. The user should ensure that the limitations in Chapter 6 are not just a repeat of those in Chapters 4 and 5 but are synthesized at a higher level.*

Articulation of Limitations and Future Research: *Each limitation is presented, but the connection to the future research is sometimes weak. For example, the first limitation about New Zealand's market size and SME dominance is followed by a future research suggestion that seems to contradict the limitation (saying*

that SMEs might represent larger organisations, then suggesting to study large global markets). The reasoning could be clearer.

RECOMMENDATIONS TO IMPROVE YOUR WRITING

1. Restructure from List to Thematic Narrative

Problem: *Your current approach lists limitations separately, creating fragmentation.*

Solution: *Group related limitations into 2-3 thematic categories with clear headings. For example:*

- *"Contextual and Geographic Boundaries"*
- *"Methodological and Temporal Constraints"*
- *"Level of Analysis Limitations"*

Why this works: *Creates logical flow, reduces repetition, and demonstrates higher-order synthesis skills expected in a PhD.*

2. Strengthen Academic Tone and Confidence

Problem: *Language like "may seem less applicable on the surface" and "arguably represents" weakens your authority.*

Solution: *Use definitive academic language that frames limitations as inherent boundaries rather than weaknesses.*

Replace: "may seem less applicable"

With: "establishes a boundary condition for transferability"

Replace: "arguably represents"

With: "provides an analogue for" or "serves as a proxy for"

3. Clarify the "So What?" for Each Point

Problem: *Your limitations state facts but don't explicitly articulate their implications.*

Solution: *For each limitation, add one sentence that answers: "What is the consequence of this for interpreting my findings?"*

Your current: "conducted in New Zealand which is a small market"

Add: *"This contextual specificity means the findings offer analytical rather than statistical generalizability, requiring adaptation for different market environments."*

4. Establish Clear Hierarchy Between Chapters

Problem: *Potential duplication between thesis and manuscript limitations.*

Solution: *Define distinct roles:*

- *Chapters 4 & 5: Manuscript-specific limitations (e.g., sample characteristics specific to that study)*
- *Chapter 6: Thesis-wide, synthesized limitations (e.g., overarching methodological choices, theoretical scope)*

Action: Review your manuscripts and move any narrow limitations there, keeping only cross-cutting themes in Chapter 6.

5. Tighten the Limitation → Future Research Connection

Problem: *The connection between limitation and future direction needs stronger articulation.*

Solution: *Use a clear "Therefore" or "Consequently" bridge that shows direct logical progression.*

Current structure: *Limitation → Explanation → Future research*

Improved structure: *Limitation → Implication for knowledge → Therefore, future research should...*

Example template:

"While this research [FINDING], it cannot address [LIMITATION]. This creates a gap in understanding [SPECIFIC KNOWLEDGE GAP]. Therefore, future research should [SPECIFIC METHOD] to investigate [PRECISE QUESTION]."

6. Elevate Practitioner Concerns to Scholarly Discourse

Problem: *The "timeliness" issue is framed as practitioner complaint rather than methodological challenge.*

Solution: *Reframe as a scholarly problem of "temporal alignment in digital transformation research."*

Instead of: "Practitioners lamented the relatively slow process..."

Try: *"The methodological tempo of traditional qualitative research creates a misalignment with the velocity*

of digital change, presenting challenges for real-time knowledge application."

7. Precision in Terminology
Problem: *"Cultural make-up" and "SME model" are imprecise.*
Solution: *Use established academic terms:*

- *"Cultural make-up" → "individual-level cultural dimensions" or "micro-cultural differences"*
- *"SME model" → "SME-dominated business ecosystem characteristics"*

8. Create Parallel Structure for Readability
Problem: *Each paragraph has different internal structure.*
Solution: *Use consistent pattern:*

1. *State limitation clearly*
2. *Explain its source/nature*
3. *Articulate its consequence*
4. *Propose specific future research*

Visual cue: Consider using the same syntactic structure to begin each limitation paragraph (e.g., "First,..." "Second,..." "Third,...").

9. Balance Specificity with Synthesis
Problem: *Some points are too specific (NZ market size), others too vague (cultural factors).*
Solution: *For each limitation, ask:*

- *Is this specific enough to be meaningful?*
- *Is it broad enough to represent a thesis-level concern?*

Test: *If it applies only to one manuscript, move it there. If it applies to the entire research program, keep it here but elevate to conceptual level.*

10. Strengthen the Narrative Arc
Problem: *The section reads as separate observations.*
Solution: *Create introduction and conclusion paragraphs that frame limitations as:*

- *Introduction: "These boundaries clarify the scope and application of our findings..."*
- *Conclusion: "Addressing these limitations would advance a more robust, multi-dimensional understanding..."*

Implementation Checklist:

- *Group limitations into 2-3 thematic categories with clear headings*
- *Replace tentative language with confident academic framing*
- *Add explicit "implication" statement after each limitation*
- *Ensure Chapter 6 limitations are thesis-level, not manuscript-specific*
- *Create tight logical bridges between limitations and future directions*
- *Reframe practitioner concerns as scholarly challenges*
- *Use precise, discipline-appropriate terminology*
- *Apply parallel structure for readability*
- *Balance specificity with appropriate level of generalization*
- *Create narrative flow with introduction and conclusion*

Quick Self-Assessment Questions for Each Point:

1. *Have I stated what the limitation IS, not just described it?*
2. *Have I explained WHY this matters for interpreting my findings?*
3. *Does my future research suggestion directly address THIS specific limitation?*
4. *Is this a thesis-level concern or manuscript-specific?*
5. *Would a scholar in my field recognize this as a legitimate limitation?*

By implementing these recommendations, you'll transform your section from a list of observations into a coherent scholarly argument that demonstrates reflexivity, rigor, and forward-thinking—key markers of doctoral-level writing.

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By implementing these recommendations, you'll transform your section from a list of observations into a coherent scholarly argument that demonstrates reflexivity, rigor, and forward-thinking—key markers of doctoral-level writing.

STUDENT DECLARATION

By signing you are confirming that the AI use stated in the table(s) above are accurate and follow AUT's recommended guidelines detailed in the AI Hub and Postgraduate Handbook.

Student Name: Chris Myhre **Signature:**  **Date:** 07/02/2026

Appendix 2: Secondary Data

Table VII: Overview of secondary data sources

Source Type	Count	Year Range
Industry Conference	1	2024 & 2025
Industry Data Report	2	2022 - 2025
Industry News Article	1	2024
Industry Publication	4	2022 - 2023
Industry Report	9	2022 - 2024
Industry Web Article	8	2019 - 2024
Informal Conversation	2	2023 - 2024
Leadership Forum Report	1	2024
Magazine	1	2024
Industry Media Release	2	2019 - 2023
News Article	1	2024

Appendix 3: Information Sheet for Participant

Participant Information Sheet

Date Information Sheet Produced: 17 June 2024

Project Title

Understanding the Factors/Components for Success of Digital Transformation Initiatives from a Multi-dimensional Perspective

An Invitation

My name is Chris Myhre, and I am a PhD student researcher from the Marketing Department at AUT University in Auckland. I am researching Outcomes and Value Generation of Digital Transformation Initiatives, and I would like to extend an invitation to you to participate. The data collected during this research will be used to analyse themes and patterns within the responses of all participants. The information gathered is confidential so no identifying information will be publicly available in the research. Your participation is completely **voluntary**, and you can choose not to participate at any time during your involvement.

What is the purpose of this research?

Digital Transformation is a growing topic in academia and industry alike but there is still much to learn about the perspectives of those involved. In particular, the users of the digital tools that accompany digital transformation projects need more research attention to ascertain their perspectives which in turn can inform the strategic decisions of the business. Furthermore, the advancement of AI and other disruptive and transformative technologies underlines the need to a) revisit past research about digital transformation and assess its relevance and b) gain the perspectives of the stakeholders involved as digital use is a now ubiquitous phenomenon that has permeated all aspects of society bringing with it nuanced differences between individuals regarding how digital is used, perceived, understood, and valued. This research is tasked with finding new knowledge on the topic of digital transformation, gaining insights into the perspectives of the users and practitioners, and understanding the factors of a success-failure spectrum. The hope is to provide a holistic view of digital transformation to better inform those involved in the practical application of digital transformation initiatives as well as provide more up-to-date, informed insights for both academia and industry.

How was I identified and why am I being invited to participate in this research?

You have been contacted by your colleague/friend/peer who thought you might be interested in this research due to your expertise and experience in the field of Digital Transformation. Your colleague/peer thought your inclusion in this research would be both beneficial and interesting. This research aims to interview participants in different roles to gather various perspectives on the digital transformation process and it is to this point that I would like to request your voluntary consent to participate in the study. The selection criteria for this research includes being a participant with direct involvement in the digital transformation process. Based on this information, I would like to request your voluntary consent to participate in this research.

How do I agree to participate in this research?

You can agree to take part in this research by emailing me at chris.myhre@aut.ac.nz and attaching the signed Consent Form for your participation to signify that you agree to take part. I will also have copies of the Consent Form that will be physically available for you to complete before the actual interviews.

Your **participation** in this research is **voluntary** (it is your choice) and whether you choose to participate will neither advantage nor disadvantage you. **You can withdraw from the study at any time**. If you choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used. However, once the findings have been produced, removal of your data may not be possible.

What will happen in this research?

The research's data collection method is an informal interview about your experience and knowledge regarding Digital Transformation. The interview will be conducted online via Teams and will last approximately 60-90 minutes. The session will be audio-recorded, and notes will also be taken. The questions and discussions during the interview will relate to the participant's existing knowledge, practices, and experiences regarding Digital Transformation Initiatives. All information provided by the participants will be kept confidential, and no identifiable information will be used in the final reporting to ensure confidentiality and the participants will not be identified in any findings or discussions that may be included in research outcomes.

The interviews will take place during work hours at a date and time that suits you and while Teams is the identified technology to use, other method methods can be accommodated including Zoom, Google Chat, or face-to-face at a convenient venue. Offsite interviews will still be recorded for transcription purposes as per an online format.

Participation in the research is **voluntary**, and the participants may withdraw at any time without any effect on their rights. All interviews conducted for this research will be used for academic purposes only. Follow-up interviews may be requested to clarify some points made in the interview or to gain further information regarding salient points of interest, but these are voluntary as per the original agreement.

What are the discomforts and risks?

There is a very minimal chance of any discomfort. For the interview, please be assured that the questions are non-invasive as this research does not seek a level of detail that may identify a participant or create any discomfort. The interview schedule and place will be adjusted based on your availability and convenience and the interview guide (example questions) can be provided at any time before the interview takes place.

How will these discomforts and risks be alleviated?

Participation is voluntary and if for any reason you feel uncomfortable, you can refrain from answering certain questions or even withdraw from participating in this research at any time before the completion of the interview without any consequences. Participation is voluntary and if for any reason you feel uncomfortable with the interview process, you can discontinue/withdraw from the research project at any time before the study's completion without any consequences.

What are the benefits?

Digital Transformation is a complex area and one that is in a state of change. The processes involved along with the technologies used are evolving. As a participant in research, you will be part of a growing research area that can benefit you and your colleagues by providing data and insight about how to better conduct digital transformation initiatives. This may invoke your thoughts on where improvements could be made to the strategies employed and the practices and tasks involved in your role. For the wider community, this study will provide both academics and practitioners with beneficial information regarding the topic of digital transformation and what barriers or drivers exist currently. This research will also allow me as the primary researcher, to share and publish the results of this study on various academic platforms to spark future research projects and continue to advance digital transformation outcomes for the better.

How will my privacy be protected?

Participation in this study is voluntary, and the identity of all participants remaining confidential and will not be disclosed to anyone except the primary researcher and the project supervisor. To ensure that privacy and confidentiality are respected, all participants' names will be changed to pseudonyms, and their contact information will not be disclosed in the final report. Any data extracted from the interviews will be used for academic purposes only, and all reports or published findings will not contain any identifying information.

All data and the consent forms will be stored in a password-protected digital area at AUT University with access granted only to the primary researcher. These files will also be continually protected after the project is completed to further ensure confidentiality and privacy are respected.

All participants will not be identified in any of the findings or discussions that may be part of the research outcomes, such as conference papers and journal articles. If quotes are used in any of the findings, only pseudonyms will be used in the final report.

What are the costs of participating in this research?

There are no costs to you other than your time to participate in the study which is, as mentioned above, will be 60-90 minutes for the interview. If any follow-up interviews are requested, these will be an additional <30 minutes depending on your availability and are only if they are needed to clarify some discussion points.

What opportunity do I have to consider this invitation?

You can take your time to decide if you wish to participate in this research. However, it would be appreciated for you to respond within two weeks from the date the email requesting participation is sent.

Will I receive feedback on the results of this research?

On the Consent Form, you may tick the box showing your interest in receiving feedback on a summary of the results of this research. A resulting synopsis will be emailed to you once the research is complete.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Primary Researcher, Chris Myhre, chris.myhre@aut.ac.nz, +64 21 425 901

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, *ethics@aut.ac.nz*, (+649) 921 9999 ext. 8860 or 8316

Whom do I contact for further information about this research?

Please keep this Information Sheet and a copy of the Consent Form for your future reference. You are also able to contact the research team as follows:

Researcher Contact Details:

Chris Myhre, chris.myhre@aut.ac.nz , +64 21 425 901

Approved by the Auckland University of Technology Ethics Committee on *17 June 2024*, AUTEC Reference number *24/40*.

Appendix 4: Participant Consent Form

Figure XII: Participant consent form example



Consent Form

Project title: Understanding the Factors/Components for the Success of Digital Transformation Initiatives from a Multi-dimensional Perspective

Project Supervisor: *Dr Crystal Yap*

Researcher: *Chris Myhre*

- I have read and understood the information provided about this research project in the Information Sheet dated 17 June 2024.
- I understand that the research will require 60-90 minutes of my time for the conducting of the interview.
- I have had an opportunity to ask questions and to have them answered.
- I understand that notes will be taken during the interview and that it will also be audio-taped and transcribed.
- I understand that if I withdraw from the study I will then be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used.
- I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- I agree to take part in this research.
- I wish to receive a summary of the research findings (please tick one): Yes ○ No ○

Participant's Consent:

Signature: .....

Name: .....

Date: .....

Participant's Contact Details:

Phone: .....

Email: .....

Physical Address: .....

Approved by the Auckland University of Technology Ethics Committee 17 June 2024 AUTEC Reference number 24/40
Note: The Participant should retain a copy of this form.

Appendix 5: Interview Guide

Project title: Understanding the Factors/Components for the Success of Change Initiatives from a Multi-dimensional Perspective

1. Can you describe your **role & responsibilities** within your current organisation and your previous roles of relevance?
2. How would you **define digital transformation** in the context of your organisation?
    a. Has you definition or understanding changed over time?
3. What are your perspectives on the **key drivers** of digital transformation you've been involved with?
    a. What are some of the **differences/similarities** between projects?
    b. What are the **primary challenges**?
4. How do you perceive the **role of digital transformation** in achieving organisational **objectives**? i.e. How aligned are the objectives to the outcomes and process of digital transformation?
    a. Can you describe situations where digital transformation has been affected, or influenced, by those objectives?
5. What are some examples that illustrate **challenges** have you encountered with some digital initiatives?
    a. Are legacy systems a factor? How?
6. Can you describe some example scenarios that highlight interesting/poignant **success factors**?
    a. How is success/productivity measured?
7. How are **decisions made** within your organisation regarding digital transformation initiatives?
    a. What criteria guide these decisions?
    b. Are they long- or short-term orientated?
    c. Are they Macro/Holistic strategic initiatives then broken up or micro and assigned?
8. What **change management** strategies or approaches have been significant from your perspective?
9. How do you address **change** during the implementation of digital transformation projects?
    a. How do you address factors concerning employee **buy-in/engagement**?
    b. What **change strategies** are employed during the various stages?
10. Can you discuss the role **data** and **analytics** play in digital transformation initiatives?
11. To what extent does your organisation rely on **data-driven decision-making** in the context of digital transformation?
12. How is the **end-user experience** (UX) considered in digital transformation projects? i.e., How does the end-user factor in the…
    a. Strategy/Planning stage
    b. Implementation phase
    c. In the review of the initiative

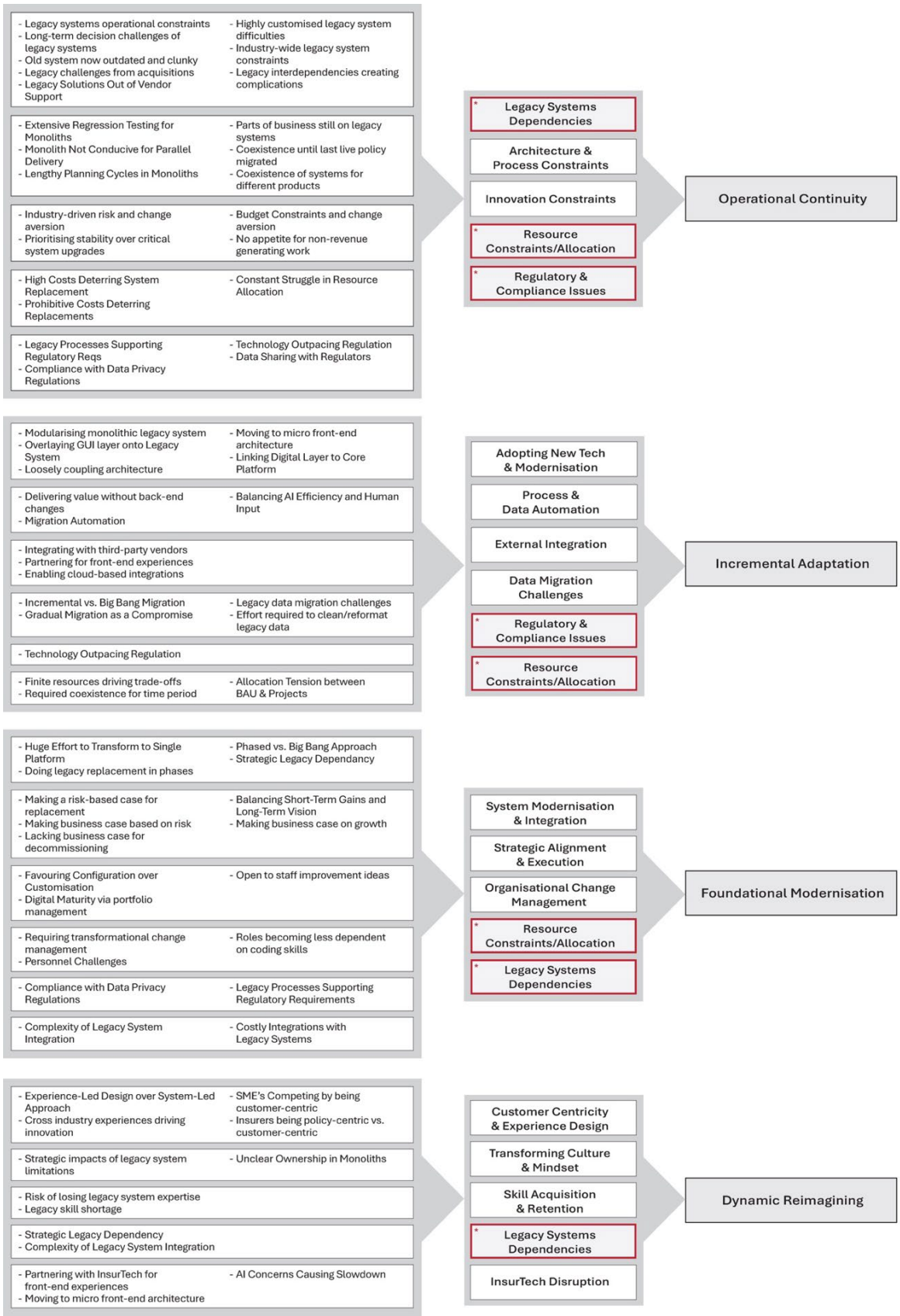
Supplementary questions

13. How do you see the **future** of digital transformation evolving in your industry?

    a. How is your organisation preparing?
    b. What changes/innovations/evolution do you see as being important in the coming years?
14. How does your organisation encourage **innovation and ideas**, especially concerning digital technologies?
15. What are the **core technologies** and/or **platforms** that enable your organisation's digital transformation?
16. What is the spread of resource allocation for customer facing digital initiatives vs internal user tool dev/use?
17. Does regulation play role in your org/industry?

Appendix 6: Manuscript 1 Coding Structure

Figure XIII: Coding structure of the emergent patterns*



Source: Author's own

Table VIII: Illustrative empirical evidence informing the descriptive typology

Descriptive position	Illustrative observation	Organising Theme	Analytical Interpretation
Operational Continuity	Participants described maintaining stable legacy systems and prioritising operational reliability over system replacement (e.g., P21, P2).	Legacy Systems Dependencies; Resource Constraints/Allocation	Established systems and operational priorities reinforce continuity-oriented responses to digital transformation.
Incremental Adaptation	Participants described introducing API layers, modular interfaces, and selected digital capabilities while retaining existing core systems (e.g., P19, P2).	Adopting New Tech & Modernisation; Process & Data Automation	Targeted digital initiatives enable substantial change within selected functions or service interfaces while retaining established core systems and limiting the wider organisational scope of transformation.
Foundational Modernisation	Participants discussed phased replacement, system integration, and broader modernisation programmes (e.g., P11, P19).	System Modernisation & Integration; Strategic Alignment & Execution	Comprehensive modernisation can be pursued through planned, incremental changes to core organisational capabilities.
Dynamic Reimagining	Participants discussed experience-led design, customer-centricity, and challenging system-led approaches to transformation (e.g., P6, P15).	Customer Centricity & Experience Design; Transforming Culture & Mindset	These accounts inform an aspirational strategic orientation towards comprehensive, transformative change

*Note:
The coding structure illustrates the analytical progression from empirical observations to the organising themes informing the descriptive typology. Initial coding remained close to participants' accounts of legacy systems, organisational priorities, digital initiatives, and transformation challenges. Through iterative comparison, related observations were grouped into broader themes reflecting recurring organisational responses to digital transformation. These themes were subsequently interpreted through the dimensions of transformation *Scope* and *Focus* to develop the four descriptive typology positions. This process was abductive rather than strictly linear as emerging interpretations were repeatedly compared with the empirical material and relevant theoretical concepts, allowing the typology to be refined as the analysis continued and progressed. The illustrative evidence above demonstrates selected links between participant accounts, organising themes, and typological interpretations. It is not intended to represent the complete dataset or imply that every participant's experience fitted exclusively within one thematic position.

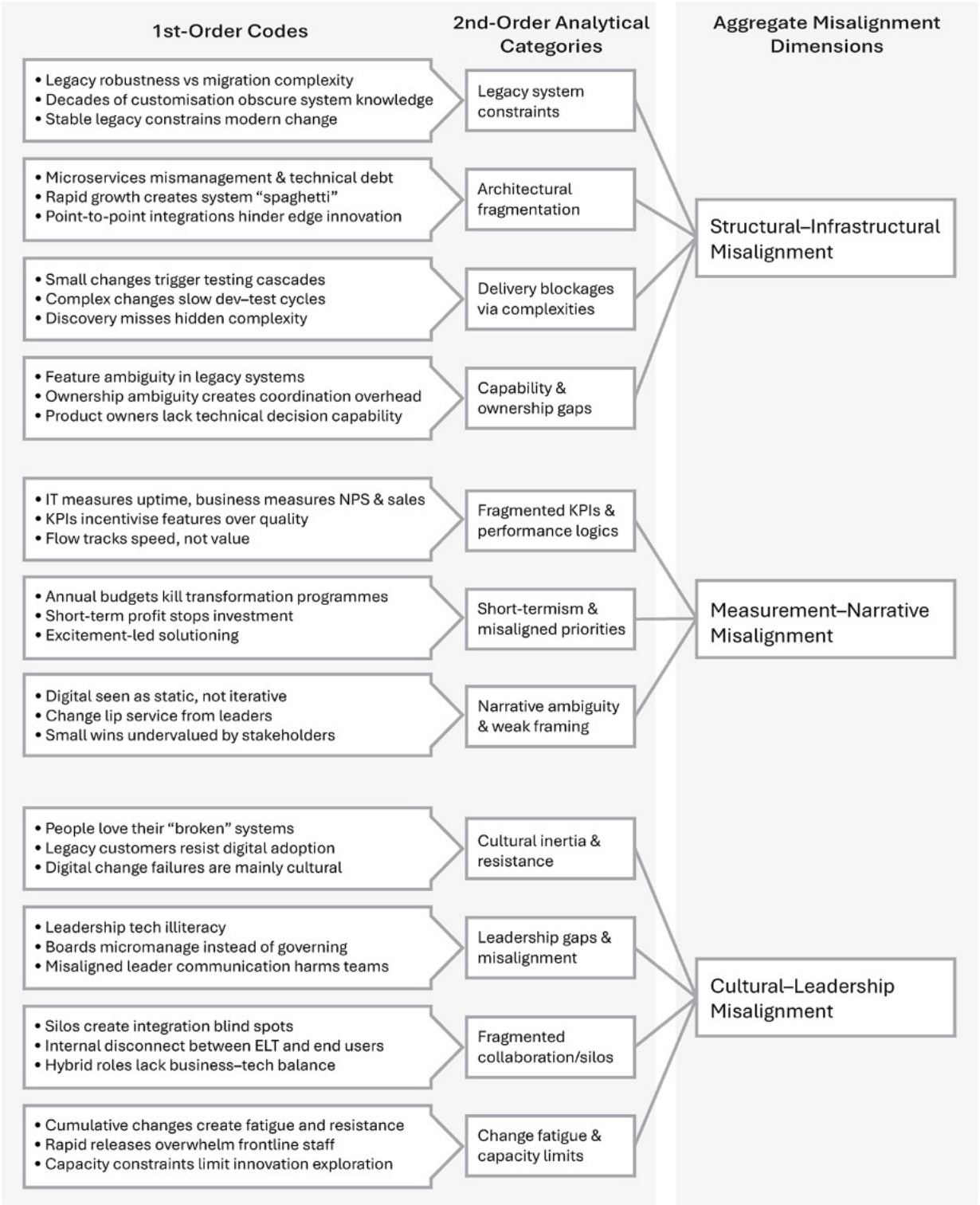
Appendix 7: Manuscript 1 Core concepts

Table IX: Core concept definitions and key sources

Concept	Definition (as used in Manuscript 1)	Key Source
Paradox	Persistent contradictions that are interdependent and recur over time within organisations, requiring both/and rather than either/or responses.	Smith & Lewis (2011); Schad et al. (2016)
Dynamic equilibrium	An ongoing organisational process of managing and recalibrating opposing tensions (e.g., stability vs. innovation) as a second-order capability that fosters resilience and long-term performance.	Smith & Lewis (2011); Jarzabkowski et al. (2013); Do et al. (2022)
Ambidexterity	The ability of organisations to balance or alternate between exploration (innovation) and exploitation (efficiency) through leadership and digital strategy to navigate change.	AlNuaimi et al. (2022); Lavie et al. (2009); Sok & O'Cass (2015)
Digital transformation	A holistic, paradoxical process that reconfigures structures and capabilities to enhance recovery capacity, often at the risk of immediate change resistance vulnerabilities.	Chi et al. (2025); Vial (2019); Chaudhary et al. (2022)
Organisational Resilience	A dynamic capacity developed through the synergy of organisational learning, resource-based management, and adaptive digital agility.	Do et al. (2022); Khurana et al. (2022)
Intra-organisational tensions	Internal conflicts arising within firms (e.g., cultural, structural, metric-based) during transformation, often stemming from the "tradition–innovation" paradox.	Gregory et al. (2015); Berger-Remy et al. (2021)

Appendix 8: Manuscript 2 Coding Structure

Figure XIV: Development of misalignment dimensions and their relationship to value attenuation



Source: Author's own

Appendix 9: Manuscript 2-Overview of Selected Empirical Studies

Table X: Overview of selected empirical studies

Reference	Focus	Methods	Key Insights
Alexander & Vallström (2023)	Examines VCD within service research. Identifies conceptual issues with how VCD is defined, understood, and applied. Proposes solutions for better theoretical development.	Conceptual review + examines theoretical underpinnings, identify inconsistencies. Draws on evolution of SDL.	VCD is variably defined and often misunderstood, leading to conceptual fragmentation; Identification of logical flaws in current VCD conceptualisations, Research should shift from viewing VCD as purely normative to using mid-range theories that capture both positive and negative value outcomes along a continuum.
Barrett et al. (2015)	Examining how digital tech transforms service innovation across multiple dimensions, emphasising SDL, practice-based approaches, digital artifacts, and innovations in emerging economies.	Literature review across Information Systems and Marketing disciplines	SDL reconceptualising service as resource integration and VCC in ecosystems; digital technologies serving as both enablers and coordinators of value creation across distributed actor networks.
Brodie, Lobler, & Ferher (2019)	Tracing SDL's evolution to guide VCC research	Conceptual synthesis and agenda-setting review of SDL development	Positions SDL as a metatheory; highlights VCC foundations; identifies future research opportunities around innovation, ecosystems, and digital contexts
Echeverri & Skålén (2021)	Uses SDL to conceptualise VCD as a process of resource misuse or misintegration within or between service systems	Integrative literature review	Interactive Value Formation (IVF) emerges as a neutral, reciprocal continuum where VCC & VCD dynamically interplay within value-creation spaces. Suggests future empirical studies on how resource integration occurs.
Vink et al., (2020)	Reframes service design to an institutional, multi-actor process informed by SDL; Explains why service design often fails to scale or sustain change.	Conceptual/theoretical synthesis. Develops four propositions and a multilevel process model. Uses healthcare for illustration.	Value outcomes are emergent and unpredictable; Institutional arrangements are the core design materials; Provides a multi-level model showing micro/meso/macro dynamics
Heracleous & Werres (2016)	Analysing strategic misalignments and their role in corporate failure	An applied case study approach	Argues corporate failures are often due to strategic misalignments (like silos and disconnected hierarchies). Aligns to value friction and intra-organisational misalignment.
Huang & Rust (2018)	A theory on AI job replacement that specifies four intelligences required for service tasks	Conceptual and literature review	Examining how AI affects marketing practice, comparing automation with augmentation strategies. They '…address the way firms should decide between humans and machines'
Kaartemo & Helkkula (2024)	How humans and AI interact as entangled resources in VCC across service ecosystems	Literature review via a theory adaptation approach	Humans and AI are entangled value-cocreating resources in inherently socio-technical service ecosystems; Dissolution of the operant/operand divide

Kindström & Kowalkowski (2014)	Business-model capabilities enabling servitisation; actor resources for co-created service value	Abductive approach across several projects; interviews and focus groups on product-centric firms	Specific resources/capabilities underpin business-model elements; elements are interdependent as changes ripple across the model. Business models help visualise necessary organisational changes and surface service opportunities
Kurtmollaiev et al. (2018)	The process of adopting service design by a large service organisation	An inductive interpretive and case study approach	Links organisational transformation to service design and institutional logics. Provides a framework for discussing how internal changes impact service delivery.
Laud et al. (2019)	Identifies resource misintegration manifestations; dynamic framework linking coping to value outcomes	Systematic, iterative literature review	Ten resource-mis integration manifestations act as early warnings for VCD; affected actors use proactive/reactive coping and support resources to prevent VCD or restore well-being; formalises VCD as interactional decline in well-being
Nadkarni & Prügl (2020)	Maps digital transformation around technology and actor dimensions to integrate management perspectives	Systematic review of 58 digital transformation papers plus 28 disruption and 32 corporate entrepreneurship papers;	Nine core themes; under-researched areas include pace, culture/work environment, and middle management's role
Nambisan et al., 2017	Argues digitization disrupts existing innovation management theory. Digital innovation challenges assumptions	A conceptual / theoretical paper; a synthesis of IS and innovation management literature	Innovation becomes fluid and unbounded through dynamic problem-solution pairing; supports internal coordination perspectives and the role of digital tools (AI) as actors shaping organisational processes.
Leonardi, (2011)	How human and material agencies become interwoven (*imbricated*) when organisations change routines or technologies	Ethnography at a major automotive firm; 58 interviews; 134 observations	Introduces imbrication as the mechanism of socio-material change; shows how perceived affordances lead to routine change and perceived constraints lead to technology change
Paul et al. (2024)	Consumer technologies reconfigure service ecosystems under SDL, enabling VCC and corporate digital responsibility	Editorial perspective and multidisciplinary narrative	digital transformation across IoT, social/mobile, AI and immersive tech reshape consumer-firm interactions and VCC in service ecosystems. Synthesises impacts and offers domain-specific research agendas on roles, importance and multifaceted effects for consumers and organisations
Payne et al. (2021)	Reviewing digital servitisation, SDL, and AI/disruptive innovation	Conceptual paper	Provides a specific digital servitisation VCC framework for AI services in financial service ecosystems. Contextualises AI's role in insurance/banking context.
Plé & Cáceres (2010)	Critiques the etymological and conceptual bias within value and VCC research	A conceptual paper; literature synthesis and illustrative anecdotal example	Value outcomes are not purely positive; VCC and VCD can coexist within the same interaction. Highlights need to view value as a continuum. Emphasises multi-actor ecosystems create conditions where value weakened.

Pop et al., (2018)	Typology of institutions (micro, meso, macro) that enable or constrain customer centricity and VCC in service ecosystems	A conceptual paper using 2 case studies	Develops 9 institution types that structure how actors collaborate and co-create value; clarifies how institutions enable/constrain VCC; Focused on Axiom 5
Rahwan et al., (2019)	How AI systems act as agents within socio-technical ecosystems, influencing interaction patterns, coordination, and collective intelligence	Interdisciplinary conceptual synthesis paper	AI functions as *augmented collective intelligence*, connecting distributed actors through shared signals and algorithmic coordination; requires human oversight to ensure coherent interpretation and aligned action.
Kolbjørnsrud et al., (2024)	How AI reshapes coordination, decision-making, and work structures	Conceptual, theory-building paper synthesising empirical cases and organisational theory	AI reshapes organisational work by enabling predictive, data-driven decision-making and cross-functional visibility; benefits materialise only when embedded within coordinated structures, routines, and human–AI complementarity
Rust (2019)	How AI will reshape the discipline and practice of marketing	Conceptual article synthesising marketing, service, & AI research	Positions AI as a transformative force altering how value is delivered and coordinated; AI transforms marketing by shifting decision-making toward predictive, automated coordination while increasing the need for human–AI complementarity
Spee & Jarzabkowski (2017)	Explores how organisational actors achieve agreement on strategic change	Longitudinal ethnographic case study of a UK university's strategic planning process	Managers must facilitate negotiated coherence rather than impose shared meaning; ambiguity can be enabling and constraining; Three meaning-making mechanisms: expanding, combining, reframing
Vargo & Lusch (2016)	Updating and extending SDL theory by adding institutions and institutional arrangements to better explain coordination and cooperation in VCC processes	Literature review across multiple disciplines	Introduces fifth axiom arguing institutions essential coordination practices in service ecosystems, enabling actors to engage complex VCC processes while transcending traditional firm-customer dyadic view toward broader multi-actor systems perspective.
Vargo, Wieland, & Akaka (2015)	Institutions shape innovation in service ecosystems, enabling VCC and markets	Conceptual synthesis integrating institutional theory with SDL to frame innovation systemically	Innovation is institutionalisation within ecosystems: technology as useful knowledge/value propositions; markets and technologies co-evolve via combinatorial resource evolution; institutions enable/constraint VCC and are maintained, disrupted, changed by actors
Vial (2019)	Defining what digital transformation is, identifying drivers and mechanisms; how tech reshapes organisations	Systematic literature review of 282 peer-reviewed articles	Foundational paper for understanding digital transformation and AI's increasing role as an operant resource, reinforcing its active, knowledge-based function.
Wilden et al., (2017)	How SDL has evolved over time; How SDL's conceptual themes have changed	A literature review using a mixed bibliometric approach	SDL's interdisciplinary heritage and potential to act as a bridge; resources less central in recent SDL work; highlight several areas SDL research is

			underdeveloped; notes under-theorised micro-foundations
Wirtz et al., (2023)	How digital service technologies (AI, service robots, SSTs) interact with three strategic pathways for achieving Cost-Effective Service Excellence	Conceptual article integrating CESE literature, resource-based theory, and service systems thinking	Digital service technologies enhance productivity when organisational structures standardised and coordinated; without alignment, AI and automation amplify friction, variability, and inconsistent service outcomes.

Appendix 10: Analytical Theme from Empirical Data Development

Table XI: Example progression of thematic analysis

Interview Excerpt	First-order Interpretation	Analytical Code
"Marketing had one view, ops another, tech another. Once we got common dashboards, we finally had the same conversation."	Different teams rely on separate data sources, creating interpretive misalignment that hinders coordination.	Fragmented reporting structures
"When everyone is looking at the same data, the arguments disappear. We stop debating whose numbers are right."	Shared data reduces disagreement and enables faster alignment across teams.	Shared data reference points
"If we don't align the rhythm between teams, everything backs up. The planning cycles have to match."	Misaligned work cycles create bottlenecks across interdependent teams.	Workflow cadence misalignment
"Once we had a consistent release cycle, people could actually plan…the noise dropped right away."	Standardised delivery rhythms improve coordination and reduce operational friction.	Release cycle stabilisation
"AI helps us spot patterns much earlier. It shows where things are going wrong before they become major problems."	AI enables early detection of emerging coordination issues that would otherwise remain unnoticed.	AI signal detection
"AI shows us where to look. It doesn't decide for us, but it helps us prioritise."	AI augments human judgement by directing attention and supporting decision prioritisation.	AI-human complementarity
"If people don't understand why the change matters, they resist it. The story ties the work together."	Lack of shared understanding leads to resistance and fragmented execution.	Narrative misalignment
"We use the data to anchor the story; otherwise, people fill the gaps with their own assumptions."	Data-backed communication helps align understanding and reduce interpretive divergence.	Data-grounded storytelling
"Legacy systems make everything slower. You can't connect things properly, so teams work around the system rather than through it."	Legacy infrastructure constrains integration and forces inefficient workarounds across systems.	Legacy integration constraints

Appendix 11: Aggregation of Analytical Themes

Table XII: Progression from analytical codes to coherence practices[1]

Analytical Code[2] (from Appendix 10)	**Theme**	**Aggregate Coordination Pattern**	**Coherence Practice**
Fragmented reporting structures	Data visibility & coordination	Lack of shared reference points for decision-making	Shared Signals
Shared data reference points	Data visibility & coordination	Establishing common informational grounding across teams	Shared Signals
Workflow cadence misalignment	Ways of working & adoption	Desynchronised interdependent activities across teams	Temporal Orchestration
Release cycle stabilisation	Ways of working & adoption	Alignment of planning and execution rhythms	Temporal Orchestration
AI signal detection	AI-enabled coordination	Early identification of emerging coordination issues	Augmented Integration
AI-human complementarity	AI-enabled coordination	Joint interpretation and prioritisation of signals	Augmented Integration
Narrative misalignment	Organisational communication	Divergent interpretations of priorities and change	Informed Narratives
Data-grounded storytelling	Organisational communication	Alignment of meaning through shared interpretive frames	Informed Narratives
Legacy integration constraints	Legacy constraints & modernisation	Structural barriers constraining coordination flow	(*Contextual input to misalignment conditions*)

[1] Appendices 10 and 11 are separate to maintain transparency across abstraction stages. Appendix 10 shows the progression from interview excerpts to first-order interpretations, while Appendix 11 shows how the codes aggregate into coordination patterns and coherence practices.

[2] The Analytical Codes are retained from Appendix 10 to preserve traceability from empirical interpretation to theoretical abstraction.

Appendix 12: Ethics Approval

Figure XV: Ethics approval letter

18 June 2024

Crystal Yap
Faculty of Business Economics and Law

Dear Crystal

Re Ethics Application: **24/40 Understanding the Recipes for Success of Digital Transformation Initiatives from a Multi-dimensional Perspective**

Thank you for your responses to AUTEC's conditions.

Your ethics application has been approved for three years until 17 June 2027.

Non-Standard Conditions of Approval

1. Please amend the Information Sheet (Participant) to remove that their peer/colleague is involved in the research, as they may not be.

Non-standard conditions do not need to be submitted to or reviewed by AUTEC unless requested but must be completed before commencing your study.

Standard Conditions of Approval

1. The research is to be undertaken in accordance with the Auckland University of Technology Code of Conduct for Research and as approved by AUTEC.
2. All public facing documents must have the AUTEC approval number and be of a high standard of spelling and grammar. Dates on the Information Sheet(s) and Consent Form(s) must be consistent.
3. Any amendments to the project must be approved by AUTEC prior to being implemented.
4. A progress report is due annually on the anniversary of the approval date.
5. A final report is due at the expiration of the approval period, or, upon completion of project.
6. Any serious or adverse events must be reported to AUTEC, this includes unforeseen issues that might affect continued ethical acceptability of the project.
7. AUTEC grants ethical approval only. You are responsible for obtaining management permission for access from any institution or organisation at which your research is being conducted and you need to meet all ethical, legal, public health, and locality obligations or requirements for the jurisdictions in which the research is being undertaken.

The application number and title need to be referenced on all correspondence related to this project.

All forms are available online http://www.aut.ac.nz/research/researchethics

For any enquiries, please contact ethics@aut.ac.nz
(This is a computer-generated letter for which no signature is required)

The AUTEC Secretariat
Auckland University of Technology Ethics Committee

Appendix 13: Transcription Confidentiality Agreement

Figure XVI: Transcription confidentiality agreement form



Confidentiality Agreement for Transcribing Interview

Project title: *Understanding the Factors/Components for the Success of Digital Transformation Initiatives from a Multi-dimensional Perspective*

Project Supervisor*: Dr Crystal Yap*

Researcher: *Chris Myhre*

- ○ I understand that all the material I will be asked to transcribe is confidential.
- ○ I understand that the contents of the tapes or recordings can only be discussed with the researchers.
- ○ I will not keep any copies of the transcripts nor allow third parties access to them.

Transcriber's Consent:

Signature: .....

Name: Chris Myhre .....

Date: 17/06/2024 .....

Project Supervisor's Contact Details:

Phone: +64 9 921 9999 ext. 5800 .....

Email: crystal.yap@aut.ac.nz .....

Physical Address: Crystal Yap .....

Approved by the Auckland University of Technology Ethics Committee on 17 June 2024 AUTEC Reference number 24/40

Note: The Transcriber should retain a copy of this form.

Appendix 14: Staff Access Permission

Figure XVII: Permission to access employees



Permission for researchers to access organisation staff.

***Project title**:* Understanding the Factors/Components for Success of Digital Transformation Initiatives from a Multi-dimensional Perspective.

***Project Supervisor**: Dr Crystal Yap*

***Researcher**: Chris Myhre*

- ○ I have read and understood the information provided about this research project in the Information Sheet dated 17 June 2024.
- ○ I give permission for the researcher to undertake research within _____
- ○ I give permission for the researcher to access the staff of _____

Name: .....

Position (e.g., CEO): .....

Date: .....

Signature: .....

Contact Details:

Phone: .....

Email: .....

Physical Address: .....

Approved by the Auckland University of Technology Ethics Committee on 17 June 2024 AUTEC Reference number 24/40

Appendix 15: Employee Permission

Figure XVIII: Employee permission form



Permission for researchers to access organisation and associated employees

Project title: Understanding the Factors/Components for Success of Digital Transformation Initiatives from a Multi-dimensional Perspective

Project Supervisor: *Dr Crystal Yap*

Researcher: *Chris Myhre*

- ○ I have read and understood the information provided about this research project in the Information Sheet dated 17 June 2024.
- ○ I give permission for the researcher to undertake research within _____
- ○ I give permission for the researcher to access the employees of _____

Authorising Representative

Signature: .....

Name: .....

Date: .....

Authorising Representative's Contact Details (if appropriate):

Phone: .....

Email: .....

Physical Address: .....

Approved by the Auckland University of Technology Ethics Committee on 17 June 2024 AUTEC Reference number 24/40

Note: The head of the organisation (or associated representative) should retain a copy of this form.

Appendix 16: Information Sheet for Employee Access

Participant Information Sheet

This is an information sheet for the person who is granting permission to access the organisation's staff for research.

Date Information Sheet Produced: 17 June 2024

Project Title

Understanding the Factors/Components for Success of Digital Transformation Initiatives from a Multi-dimensional Perspective

An Invitation

Thank you for considering granting permission to access your organisation's employees for this research on digital transformation. My name is Chris Myhre, and I am a PhD student researcher from the Marketing Department at AUT University in Auckland. I am researching Outcomes and Value Generation of Digital Transformation Initiatives, and I would like to extend an invitation to you to participate. The data collected during this research will be used to analyse themes and patterns within the responses of all participants. The information gathered is confidential so no identifying information will be publicly available in the research. The participation on the organisation's members is completely voluntary, and each respondent can choose not to participate at any time during your involvement.

What is the purpose of this research?

Digital Transformation is a growing topic in academia and industry alike but there is still much to learn about the perspectives of those involved. In particular, the users of the digital tools that accompany digital transformation projects need more research attention to ascertain their perspectives which in turn can inform the strategic decisions of the business. Furthermore, the advancement of AI and other disruptive and transformative technologies underlines the need to a) revisit past research about digital transformation and assess its relevance and b) gain the perspectives of the stakeholders involved as digital use is a now ubiquitous phenomenon that has permeated all aspects of society bringing with it nuanced differences between individuals regarding how digital is used, perceived, understood, and valued. This research is tasked with finding new knowledge on the topic of digital transformation, gaining insights into the perspectives of the users and practitioners, and understanding the factors of a success-failure spectrum. The hope is to provide a holistic view of digital transformation to better inform those involved in the practical application of digital transformation initiatives as well as provide more up-to-date, informed insights for both academia and industry.

How was I identified and why am I being contacted regarding participation in this research?

Thank you for considering giving your permission to access your organisation's employees for this research. Your colleague/peer contacted you and provided my details for you to consider your organisations members in this research. You were contacted by someone with knowledge of this research either through their participation or a general awareness of the topic.

Your organisation was identified as a company that may have employees who can add value to this research on digital transformation. Your company is an organisation that has conducted various digital transformation projects, and you were identified by your peer/colleague as a potential person to provide access to the organisation's staff for participation in this research. I would like to request your consent to provide permission to access your organisations' members for this research. Specifically, I am requesting permission to interview members of the organisation for their perspectives on digital transformation initiatives and their opinions on the components of success.

The research is tasked with finding people who have been directly involved in digital transformation projects or initiatives in any capacity to provide unique perspectives on the digital transformation process. Involvement in digital transformation projects or initiatives refers to planning, managing, implementing, or any daily use of digital tools associated with digital transformation projects.

How do I agree to participate in this research?

To grant permission for this research, please confirm your agreement via email and send me the signed *permission to access* form at chris.myhre@aut.ac.nz. Please note that granting permission to access your organisation's staff for this research is voluntary.

What will happen in this research?

The available interview schedule will be emailed to the participants so that they can select a date and time that suits them. The interview will be conducted online via Microsoft Teams and will last approximately 60-90 minutes. The session will be audio-recorded, and notes will also be taken. The questions and discussions during the interview will relate to the participant's existing knowledge, practices, and experiences regarding digital transformation in their current and past roles. All information provided by the participants will be kept confidential, and pseudonyms will be used, and no contact information will not be disclosed in final reporting. The participants will not be identified in any findings or discussions that may be included in research outcomes such as conference papers and journal articles.

The interviews will take place during work hours and, if possible, I would like to recruit 4-5 employees. The process of inviting staff members to participate in the research, seeking their voluntary consent to participate, scheduling an interview, and conducting the interview will be the same as what you have been informed in this information sheet. Participation in the research is voluntary, and the participants may withdraw at any time without any effect on their rights. All interviews conducted for this research will be used for academic purposes only.

What are the discomforts and risks?

There is a very minimal chance of any discomfort. For the interviews, please be assured that the questions are non-invasive as this research does not seek a level of detail that may identify a participant or create any discomfort. The interview schedule and place will be adjusted based on the participant's availability and convenience and the interview guide (example questions) can be provided to each person at any time before the interview takes place.

How will these discomforts and risks be alleviated?

Participation is voluntary and if for any reason the participant feels uncomfortable, they can refrain from answering certain questions or even withdraw from participating in this research at any time before the completion of the interview without any consequences. Participation is voluntary and if for any reason they feel uncomfortable with the interview process, they can discontinue/withdraw from the research project at any time before the study's completion without any consequences.

What are the benefits?

Digital Transformation is a complex area and one that is in a state of change. The processes involved along with the technologies used are evolving. Each participant will be part of a growing research area that can benefit them and their respective organisations by providing data and insight about how to better conduct digital transformation initiatives. This may invoke thoughts on where improvements could be made to the strategies employed and the practices and tasks involved in each role. For the wider community, this study will provide both academics and practitioners with beneficial information regarding the topic of digital transformation and what barriers or drivers exist currently. This research will also allow me as the primary researcher, to share and publish the results of this study on various academic platforms to spark future research projects and continue to advance digital transformation outcomes for the better.

How will privacy be protected?

Participation in this study is voluntary, and the identity of all participants remain confidential and will not be disclosed to anyone except the primary researcher and the project supervisor. To ensure that privacy and confidentiality are respected, all participants' names and their contact information will not be disclosed in the final report. Any data extracted from the interviews will be used for academic purposes only, and all reports or published findings will not contain any identifying information.

All data and the consent forms will be stored in a password-protected digital area at AUT University with access granted only to the primary researcher. These files will also be continually protected after the project is completed to further ensure confidentiality and privacy are respected.

All participants will not be identified in any of the findings or discussions that may be part of the research outcomes, such as conference papers and journal articles. If quotes are used in any of the findings, only pseudonyms will be used, and no contact information will not be disclosed in final reporting.

The organisation name or identifying information will be kept out of the published report and will only be available to the primary researcher to separate individuals by company name to ensure ease of categorisation. If, at any stage, your organisation would prefer to have no identifying information in the confidential data then this information can be removed whenever you wish. However, if the organisation would like to have their contribution acknowledged then there is an opportunity to be specifically mentioned in the research prior to submission of the articles to the academic journals at any stage. Furthermore, if this desire to be acknowledged changes, then any identifying information for the organisation can be removed before submission of the article(s) has completed.

What are the costs of participating in this research?

There are no costs to your organisation other than the time for the organisations' employees to participate in the study which, as mentioned above, will be 60-90 minutes for the interview. There will also be no costs for participation to each individual company employee involved in the research. If any follow-up interviews are requested, these will be an additional <30 minutes depending on the availability of the participant from your organisation and are only if they are needed to clarify some discussion points. You will be informed if any follow up interviews are needed from the participants from your organisation.

What opportunity do I have to consider this invitation?

You can take your time to decide if you wish to grant permission to access your organisation's employees for this research. However, it would be appreciated for you to respond within two weeks from the date the email requesting participation is sent. .

Will I receive feedback on the results of this research?

On the Permission to Access form, you may tick the box showing your interest in receiving feedback on a summary of the results of this research. A result synopsis will be emailed to you once the research is complete.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Primary Researcher, Chris Myhre, chris.myhre@aut.ac.nz, +64 21 425 901

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, *ethics@aut.ac.nz*, (+649) 921 9999 ext. 8860 or 8316

Whom do I contact for further information about this research?

Please keep this Information Sheet and a copy of the Permission to Access Form for your future reference. You are also able to contact the research team as follows:

Researcher Contact Details:

Chris Myhre, chris.myhre@aut.ac.nz , +64 21 425 901

Approved by the Auckland University of Technology Ethics Committee on *17 June 2024*, AUTEC Reference number *24/40*.