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Role of Dynamic Capabilities in Firms' Competitiveness and Performance in the Telecommunication Sector in the United States

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College of Management and Human Potential

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John Kahi

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Walden University
2026

Abstract

Role of Dynamic Capabilities in Firms' Competitiveness and Performance in the
Telecommunication Sector in the United States

by

John Kahi

MBA (University of Roehampton), 2018

Research Project Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Business Administration

Walden University

March 2026

Abstract

Telecommunications firm leaders often struggle to integrate dynamic capabilities into their core business processes, resulting in reduced competitiveness. The purpose of this qualitative pragmatic inquiry was to explore how dynamic capabilities influence competitiveness and performance in U.S. telecommunications firms. Grounded in the dynamic capabilities view (DCV), the study addressed the overarching research question of how dynamic capabilities influence competitiveness and performance in telecommunications firms in the United States. Data were collected through semistructured interviews with six telecom and technology-sector leaders and analyzed using iterative coding and thematic analysis software. Four themes emerged: (a) continuous environment interpretation, (b) disciplined strategic commitment, (c) sustained organizational renewal, and (d) human sustainability capability. Findings suggest that competitiveness and performance are strengthened when sensing, seizing, and transforming operate as an integrated process supported by sustained human capacity. A key recommendation is for telecommunications leaders to strengthen real-time sensing capabilities by integrating customer analytics, frontline insights, and external market intelligence to identify emerging opportunities and convert them into a competitive advantage. The implications for positive social change include the potential for telecommunication leaders to implement sustainable capability practices that reduce employee burnout, and enhance organizational resilience, thereby improving service stability for communities.

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Dedication

I dedicate this doctoral study to my parents, Samson and Belisi, my daughter, Eleanor, and my brother Amusavi. Each of you inspired me in different ways—through your love, encouragement, sacrifice, and unwavering belief in what I could become. Your guidance shaped my values, strengthened my resilience, and gave me the courage to keep going even when the journey felt heavy.

Although you could not witness this moment, your presence has remained with me throughout every stage of this work. I carry your legacy with gratitude and honor, and I hope this achievement reflects the strength, hope, and purpose you planted in me.

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I also extend my heartfelt appreciation to my supervisory committee, Dr. Glenn and Dr. Faint, for their steady guidance, scholarly insight, and commitment to my growth as a researcher and practitioner. Your feedback, encouragement, and high standards strengthened both my thinking and this study, and your support made a meaningful difference in bringing this project to completion.

Finally, I am grateful to everyone who offered support, wisdom, and motivation along the way. This accomplishment reflects not only my effort but also the collective encouragement of those who believed in me and walked with me through this process.

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Section 1: Foundation of the Project

Background of the Problem

Rapid technological advancements, intense competition, regulatory pressures, and evolving consumer expectations characterize the telecommunications industry sector in the United States. In their dynamic business environment, telecommunications firms need to adapt to maintain their competitive edge and continually enhance performance (Teece et al., 1997). Despite significant investments in technology and infrastructure, many firms struggle to achieve a sustainable competitive advantage. The challenge of adapting to a rapidly changing business and economic environment underscores the importance of dynamic capabilities, such as the ability to integrate, build, and reconfigure internal and external competencies to respond to changing environments.

Existing research includes explorations of the concept of dynamic capabilities in various industries. There is a notable gap in understanding the specific impact of dynamic capabilities in the U.S. telecommunications industry. I filled this gap by exploring how dynamic capabilities influence sustained competitiveness and performance in telecommunication firms. By identifying and analyzing the key dynamic capabilities that drive innovation, operational efficiency, and market responsiveness, I provide actionable insights for telecommunications industry leaders.

The need for this research was particularly pressing given the fast-paced nature of technological change and the critical role of telecommunications in the broader economy. Telecommunication firms that effectively leverage dynamic capabilities can better navigate market disruptions, capitalize on new opportunities, and deliver a superior value

proposition to customers. This study not only contributes to academic knowledge but also addresses a practical business problem by offering strategies to enhance competitiveness and firm performance in a highly competitive industry.

By enhancing understanding of the role of dynamic capabilities, I sought to equip telecommunication firms' managers with the tools needed to thrive in an ever-evolving landscape. The dynamic business environments firms operate within, and the need for well-informed managers, set the stage for a detailed exploration of the mechanisms through which dynamic capabilities shape competitiveness and impact performance.

Business Problem Focus and Project Purpose

The business problem that I aimed to address was the lack of understanding by managers within the telecommunications sector of the role of dynamic capabilities in enhancing firms' competitiveness and performance. Despite significant investments in technology and infrastructure, many firms in this sector struggle to achieve a sustainable competitive advantage and operational efficiency. This knowledge gap hinders telecommunication firms' managers' ability to adapt effectively to rapid technological changes and evolving market demands. By investigating the specific dynamic capabilities that drive innovation, market responsiveness, and overall performance, I aimed to provide actionable insights that help telecommunication firms' managers to enhance their strategic management practices and achieve long-term success in a highly competitive industry.

The purpose of this qualitative pragmatic inquiry was to explore how dynamic capabilities (DCs) influenced competitiveness and performance, thereby enabling

sustained competitive advantage among certain telecommunication firms in the United States. Research on dynamic capabilities seeks to identify specific capabilities that contribute to competitive advantage and operational efficiency.

The target population was middle-level managers in U.S. telecommunications firms who had gained an understanding of strategic management and had over 5 years' experience in their roles. I applied purposive sampling to identify and select six participants who had implemented effective strategies that sustained their firms' competitiveness. I gained access to these participants through professional associations and social networks. For data collection, I used (a) semi-structured interviews, (b) publicly available company documents, (c) company websites, and (d) industry's knowledgeable/expert sources.

Conceptual Framework: Dynamic Capabilities al. (1997), which provides a theoretical lens for understanding how firms build, i

The study on how DCs shape and influence competitiveness and performance is grounded in the dynamic capabilities framework proposed by Teece et ntegrate, and reconfigure internal and external resources to sustain competitive advantage in rapidly changing environments. Dynamic capabilities refer to an organization's ability to adapt to market shifts, innovate, and strategically reposition itself by continuously developing new competencies.

The framework consists of three core components: (a) sensing, which involves identifying and interpreting opportunities and threats in the competitive landscape; (b) seizing, which refers to mobilizing resources and implementing strategies to capitalize on

opportunities; and (c) transforming, which entails continuously reconfiguring assets, structures, and capabilities to maintain long-term competitiveness. These capabilities enable firms to remain agile, innovative, and resilient in dynamic market conditions.

In this study, I applied the dynamic capabilities framework as the foundational guide for examining how firms leverage adaptability and strategic agility to enhance performance. By exploring how organizations develop and apply these capabilities, I seek to provide deeper insights into the relationship between dynamic capabilities and sustained firm competitiveness.

Research Question

How can managers of telecommunication firms successfully leverage their firms' dynamic capabilities to sustain a competitive advantage and improve performance?

Assumptions and Limitations

In studying how dynamic capabilities influence firm competitiveness and performance, I adopted a qualitative, pragmatic inquiry approach, assuming that reality is socially constructed and context-dependent. Firms operate in dynamic environments where strategic decisions, market positioning, and technological advancements are constantly evolving. Rather than viewing competitiveness as a fixed attribute, I assumed that firms actively shaped and redefined their competitive edge through adaptive capabilities. Understanding these processes required a holistic perspective that captured the complexity of organizational experiences, recognizing that firm performance emerged not from isolated variables but from the intricate interplay of strategic agility, innovation, and resource reconfiguration.

Given the fluid and evolving nature of business realities, I acknowledged that participants actively constructed meaning from their experiences, and their insights were essential to understanding how firms developed and sustained dynamic capabilities. Qualitative pragmatic inquiry had certain limitations, including researcher subjectivity, the time-intensive nature of data collection, and the challenge of generalizing findings beyond specific contexts. The study's reliability depended on participants' willingness and ability to provide truthful and reflective accounts of their strategic choices and operational challenges. While measurement tools in qualitative research are inherently interpretive, I remained committed to ensuring rigor and credibility through methodological transparency, reflexivity, and a deep engagement with the contextual realities shaping firms' performance.

While qualitative research provided rich, in-depth insights into complex phenomena, it came with inherent limitations that must be acknowledged. The interpretive nature of qualitative inquiry meant that the researcher played a central role in data collection and analysis, which could introduce bias. Personal perspectives and prior experiences inevitably shape interpretations, influencing how findings are framed. Qualitative studies are often highly context-specific, making it difficult to generalize results across broader populations or industries. In the study of dynamic capabilities and firm performance, each organization operated within a unique strategic and market environment, limiting the extent to which findings could be universally applied. While generalizability was constrained, the depth and contextual richness of qualitative research offered valuable theoretical and practical contributions.

Qualitative research required significant time and effort, particularly in data collection, transcription, and analysis. Given the evolving nature of business strategies and competitive environments, capturing firms' dynamic capabilities necessitates prolonged engagement and iterative exploration. Another challenge was the dependence on participants' honesty and recall, as self-reported experiences could be influenced by memory limitations or social desirability bias. Executives and managers may unintentionally present their firm's strategies in a more favorable light, affecting data reliability. The flexible and interpretive nature of qualitative studies makes exact replication difficult, as findings are shaped by the specific contexts in which they are generated. Despite these challenges, qualitative research remained invaluable for exploring the complexity of firm competitiveness and performance, provided that methodological rigor, reflexivity, and triangulation strategies were employed to enhance credibility.

In this study on how dynamic capabilities shape competitiveness. I focused on firms in the technology sector, excluding firms from other industries to maintain a manageable scope. The geographical focus was limited to companies operating in the United States of America, which may have limited the applicability of the findings to other regions. The study concentrated on specific dynamic capabilities strategies, excluding other potential factors that could influence firm performance.

Transition

In this section, I explored the foundational elements of the study, including the business problem background, the problem statement, and the purpose of investigating

how dynamic capabilities impact firm competitiveness and performance. I explored the qualitative research assumptions that underpin this study, emphasizing the subjective and context-dependent nature of organizational realities, the evolving and holistic nature of firm strategies, and the role of meaning-making in understanding competitive advantage.

I discussed key limitations of qualitative research, including researcher bias, limited generalizability, the time-intensive nature of data collection, reliance on participants' honesty, and challenges to replicability. Despite these constraints, qualitative pragmatic inquiry remains essential for capturing the complexity and fluidity of dynamic capabilities within firms.

Building on the above foundation, the next sections explored the professional and academic literature and the theoretical and conceptual frameworks that guide this study, enhancing a deeper understanding of dynamic capabilities and their link to firms' competitive advantage and performance. After the literature review and synthesis, the next section justifies studying DCs in telecommunication firms. After that, I outlined the research methodology, detailing the study's design, data collection methods, and analytical approach. Finally, in the conclusion section, I highlight key findings and their implications for both academic research and business practice.

Section 2: The Literature Review

A Review of Professional and Academic Literature

Most telecommunications firms operate within an increasingly volatile and competitive business environment, shaped by technological advancements, regulatory pressures, shifting consumer demands, and market disruptions. To sustain performance and maintain a competitive edge, businesses must exhibit agility and responsiveness, continuously adapting to changing external conditions. Traditional operational strategies often fall short in dynamic markets, necessitating the adoption of dynamic capabilities (DCs), which, according to Teece et al. (1997), refer to a firm's ability to sense, seize, and transform opportunities effectively in uncertain business environments.

Dynamic capabilities enable firms to anticipate changes, allocate resources efficiently, and innovate in response to external pressures, fostering resilience and long-term sustainability. The DCs are crucial in industries undergoing rapid transformation, where firms must strike a balance between efficiency and flexibility to remain competitive. In the telecommunications sector, characterized by fast-paced technological shifts, evolving regulatory frameworks, and intensifying competition, DCs serve as a fundamental driver of competitiveness. Telecom firms leverage data centers to optimize their network infrastructure, enhance customer engagement through digital platforms, and pioneer advancements in connectivity and data services, thereby ensuring continued market leadership. In the literature review that follows, I explored the theoretical foundations and empirical evidence supporting the role of DCs in shaping telecom firms' competitive strategies and performance outcomes.

This literature review is organized thematically to provide a structured analysis of how dynamic capabilities (DCs) influence competitiveness and performance within the telecommunications industry. It starts by exploring the theoretical foundations of DCs, followed by a critical discussion of key capability dimensions: sensing, seizing, resource orchestration, and transforming capabilities. Subsequent sections explore how these capabilities translate into competitive advantage and strategic positioning, particularly in the context of industry-specific challenges unique to the U.S. telecommunications sector. Ultimately, I exposed critical gaps in existing literature and justified the current study, thereby establishing the foundation for a developed conceptual framework, and conducted an empirical investigation.

Conceptual Framework

In this study, I adopted a dynamic capabilities framework to analyze how telecommunications firms enhanced their competitiveness and performance in rapidly evolving markets. Rooted in Teece's (2018) dynamic capabilities theory, this framework emphasizes a firm's ability to sense, seize, and transform market opportunities, thereby enabling strategic agility.

Dynamic Capabilities

The dynamic capabilities framework, introduced by Teece et al. (1997), provides a foundational perspective on how firms build, integrate, and reconfigure resources to sustain competitiveness in rapidly evolving industries. Dynamic capabilities enable firms to sense opportunities, mobilize assets efficiently, and adapt to market disruptions by continuously developing their competencies. Studies show that firms possessing strong

dynamic capabilities outperform competitors in technology-driven industries, particularly in telecommunications (Helfat & Martin, 2022; Teece, 2021).

Findings from research indicate that resource orchestration, leadership decision-making, and organizational agility contribute significantly to firms' ability to execute dynamic strategies successfully (Bharadwaj et al., 2020; Kane et al., 2021). Despite extensive research on dynamic capabilities, empirical validation of their direct influence on firm performance remains insufficient, particularly in highly regulated sectors such as telecommunications. While previous studies have emphasized sensing and resource orchestration as strategic imperatives, few models exist to qualitatively assess the effectiveness of agility-driven adaptation in maintaining competitive positioning. The gap in the effectiveness of agility-driven adaptation presents an opportunity to refine understanding by integrating sensing, execution, and transformation into a unified framework. In view of the above-mentioned gaps, in this study, I developed an integrated model that connects sensing capabilities, resource orchestration, and agility to sustained competitiveness in U.S. telecommunications firms.

The DC's framework consists of three core components: sensing, which involves identifying and interpreting opportunities and threats in the competitive landscape. The second component is seizing, which refers to mobilizing resources and implementing strategies to capitalize on opportunities. The third component is transforming, which entails continuously reconfiguring assets, structures, and capabilities to maintain long-term competitiveness. These capabilities enable firms to remain agile, innovative, and resilient in dynamic market conditions.

In this study, the dynamic capabilities framework serves as a foundational guide for exploring how firms leverage adaptability and strategic agility to enhance performance. By exploring how organizations developed and applied these capabilities, I sought to provide a deeper understanding of the relationship between dynamic capabilities and sustained firm competitiveness.

Foundation of Dynamic Capabilities

In my literature review on dynamic capabilities (DCs), I focused on how firms can sustain their competitiveness and performance in the marketplace. Before Teece et al. (1997) introduced the concept of dynamic capabilities, firms responded to changes in their business environments through various strategic approaches. For instance, contingency theory suggested that there was no single best way to organize a company or make decisions, emphasizing the need for flexibility and adaptation to external changes (Donaldson, 2021; Thompson, 1994; van der Kolk & Schokker, 2023). Additionally, firms often employed strategies such as diversification, cost leadership, and differentiation to maintain competitiveness (Bateman & Zeithaml, 1993; Hill et al., 2021). Scenario planning was used to anticipate and prepare for potential future changes in the business environment (Courtney, Kirkland, & Viguerie, 1997; Daim & Jetter, 2018; Fujii, 2024; Swan et al., 2024)

Effectiveness of Pre-Dynamic Capabilities Approaches

The pre-dynamic capabilities approaches had varying degrees of success in competitive environments. Contingency theory was effective in environments where flexibility and adaptation were necessary. It allowed firms to tailor their strategies to

specific circumstances, thereby improving alignment with external conditions and performance. Contingency approaches often lacked a systematic approach to managing change, leading to inconsistent strategic direction (Prebreza & Ramosaj, 2021; Thompson, 1994).

Diversification, cost leadership, and differentiation as strategies provided firms with clear pathways to achieve competitive advantage. Diversification helped spread risk, cost leadership aimed at achieving the lowest operational costs, and differentiation focused on creating unique products or services. While effective, these pre-dynamic capabilities' strategies often required significant resources and could be challenging to sustain in rapidly changing environments (Bateman & Zeithaml, 1993; Collis & Anand, 2023; Juniarti et al., 2022). Scenario planning enabled firms to prepare for a range of plausible future environments, thereby enhancing strategic flexibility and resilience in the face of uncertainty. By fostering long-term thinking and identifying emerging threats and opportunities, it supported more informed decision-making. The effectiveness of scenario planning was often constrained by the quality and relevance of the scenarios developed, as well as by organizational inertia or limited capacity to implement changes swiftly (Courtney et al., 1997; Schoemaker, 1995; Varum & Melo, 2022; Wright, Bradfield, & Cairns, 2019). Despite their benefits, pre-dynamic capabilities approaches had notable shortcomings, particularly in their lack of agility. These traditional strategies often failed to provide the flexibility needed to respond to rapid, unpredictable changes in the business environment. The weakness in flexibility and adaptability was especially evident

in industries undergoing technological disruption or significant market shifts (Desalegn et al., 2024; Mankins, 2022; Reeves & Deimler, 2011; Swan et al., 2024).

The inability to adapt swiftly not only hinders businesses from capitalizing on emerging opportunities but also leaves them vulnerable to competitive pressures. Without agile frameworks, organizations struggled to realign their operations, rethink strategic priorities, and proactively address shifting consumer demands, which ultimately diminished their long-term viability. As a result, firms that relied solely on static capabilities faced growing inefficiencies, while those integrating dynamic capabilities demonstrated greater resilience and sustained competitiveness in volatile markets.

Another key shortcoming of traditional strategic approaches that impeded firms' competitiveness and greater resilience was their resource-intensive nature. Strategies such as diversification and differentiation required substantial financial investments, often creating barriers for smaller firms with limited capital. Anggara et al. (2025) highlight that firms with adequate resources for diversification and internationalization tend to achieve higher performance, particularly in competitive global markets. Smaller firms often struggle to secure the funding needed for international diversification, hindering their ability to expand and sustain growth. Without sufficient financial backing, these firms may face operational inefficiencies and reduced market competitiveness.

Another major challenge that impacted operational efficiency was the inconsistent implementation of strategic frameworks. While Contingency theory emphasizes flexibility, excessive emphasis on adaptability can sometimes lead to fragmented execution, making it difficult for firms to maintain a coherent long-term strategy. Nassou

and Bennani (2024) argued that aligning contingency-based strategies with performance measurement systems is necessary for organizational effectiveness and preventing strategic misalignment. Similarly, Mitchell (2024) found that public organizations often fail to apply contingent approaches effectively, resulting in a reduction of over 20% in implementation success rates. This lack of strategic consistency can lead to inefficiencies, weakened market positioning, and reduced organizational stability. While resource-intensive strategies and flexible approaches offer advantages, firms must carefully manage their implementation to maintain competitiveness and operational coherence.

Transition to Dynamic Capabilities

The limitations of the traditional pre-dynamic capabilities approaches highlighted the need for a more robust framework that could address the dynamic nature of modern business environments. This led to the development of the dynamic capabilities concept by Teece, Pisano, and Shuen (1997), which emphasized the importance of a firm's ability to integrate, build, and reconfigure internal and external competencies in response to rapidly changing environments (Teece, Pisano, & Shuen, 1997). Dynamic capabilities provide a more comprehensive approach by focusing on the processes that enable firms to sense opportunities and threats, seize opportunities, and maintain competitiveness through continuous renewal and transformation (Teece et al., 1997). This shift marked a significant evolution in strategic management, providing firms with a pathway to achieve a sustained competitive advantage in an increasingly volatile and complex world. The concept of dynamic capabilities has evolved significantly since its introduction by Teece, Pisano, and Shuen in 1997. Initially, the framework was organized around processes,

positions, and paths, emphasizing the importance of integrating, building, and reconfiguring internal and external competencies to address rapidly changing environments (Teece et al., 1997). Over time, the framework has evolved to encompass new dimensions and applications, reflecting the increasing complexity of business environments.

Evolutionary economics, particularly the work of Nelson and Winter (1982), significantly influenced the development of dynamic capabilities. Their concept of "routines" as the building blocks of organizational behavior provided a foundational understanding of how firms evolve and adapt over time. The adaptive and evolutionary perspective was crucial in shaping the dynamic capabilities framework, which extends the idea of routines by emphasizing the processes that enable firms to modify their resource base in response to environmental changes (Teece, 2021). The integration of dynamic capabilities into strategic management underscores the importance of continuous learning and adaptation, which are crucial for sustaining a competitive advantage in rapidly evolving environments (Arndt et al., 2022; Cavusgil & Deligonul, 2024; Samsudin & Ismail, 2019).

David Teece's Framework

David Teece's framework of dynamic capabilities is based on the idea that firms can sense opportunities and threats, seize opportunities, and transform their operations to maintain competitiveness. Teece identifies three main components of dynamic capabilities:

- Sensing. Identifying and assessing opportunities and threats in the environment.
- Seizing. Mobilizing resources to capture value from identified opportunities.
- Transforming. Continuously renewing and reconfiguring the firm's asset base to adapt to changing conditions.

Teece (2021) emphasized the strategic role of management in orchestrating DC's to achieve long-term competitive advantage. He highlighted the importance of managerial processes, organizational routines, and the firm's ability to learn and innovate. Teece emphasized the necessity for firms to develop a strong entrepreneurial orientation to effectively leverage the above capabilities in dynamic environments (Teece, 2021).

Eisenhardt and Martin's Framework

Kathleen Eisenhardt and Jeffrey Martin (2023) focused on specific, identifiable processes that constitute dynamic capabilities, such as product development, strategic decision-making, and alliances. They argued that dynamic capabilities are concrete processes that can be observed and measured. Eisenhardt and Martin (2023) distinguished between dynamic capabilities in moderately dynamic markets and those in high-velocity markets. In moderately dynamic markets, dynamic capabilities resemble traditional routines—detailed, analytic, and stable processes with predictable outcomes. In high-velocity markets, however, dynamic capabilities are simple, experiential, and fragile processes with unpredictable outcomes. This distinction underscored the adaptability and flexibility required for firms to thrive in different market conditions (Eisenhardt & Martin, 2023).

Winter's Framework

Sidney Winter (2022) added another dimension by defining dynamic capabilities as those that operate to extend, modify, or create ordinary capabilities. Winter emphasized that dynamic capabilities involved learned patterns of behavior that integrated resources and skills into productive performance. Winter also argued the importance of distinguishing between dynamic capabilities and ad hoc problem-solving, noting that the former requires systematic investments. At the same time, the latter can be more reactive and less structured (Winter, 2022).

Sensing, Seizing, and Transforming Capabilities

Today's business landscape is characterized by volatility, uncertainty, and rapid evolution. The ability of firms to remain competitive hinges not on static resources, but on their capacity to adapt strategically and continuously. The Sensing, Seizing, and Transforming framework, developed by Teece (2018), captures the essence of dynamic capabilities—defining how firms detect changes in their environment, mobilize resources to respond effectively, and reconfigure organizational assets for sustained advantage. This triadic model has become a foundational lens through which scholars and practitioners examine strategic agility and innovation. Its application is not merely sequential or mechanical; it reflects a complex, interdependent set of organizational behaviors and decisions shaped by industry context, technological turbulence, and internal competencies. As such, this section critically examines each dimension of the framework, not as abstract concepts, but as actionable, integrative capabilities that determine how firms navigate disruption, build resilience, and create long-term value.

Market Sensing and Customer Insights

Market sensing involves gathering and interpreting information about market trends and customers' needs to inform strategic decisions. In the telecommunications industry, this capability is important for understanding customer preferences and anticipating market shifts. Telecommunications firms leverage customer insights to enhance satisfaction and loyalty by tailoring their offerings to these evolving customer needs, but the challenge lies in analyzing vast amounts of data to generate actionable insights. Advanced analytics tools and AI-driven models help predict customer behavior and optimize service strategies, yet many companies struggle with integration and data processing inefficiencies (Neurond, 2024). Without robust analytics, misinterpretations can lead to ineffective strategies and missed opportunities, highlighting the need for continuous investment in sophisticated data frameworks (Flyaps, 2023).

Market sensing is essential for telecommunications firms to stay competitive by understanding and anticipating customer needs and market trends. According to Andersson et al. (2020), technology sourcing and knowledge transfer are vital for multinational enterprises (MNEs) to remain competitive. Day (2020) emphasized that market-driven organizations excel in sensing capabilities by continuously learning about their markets and integrating this knowledge into strategic decisions. Wu et al. (2023) argued the importance of a customer data-driven strategy in telecommunications, noting that integrating customer data into strategic planning enhances market sensing capabilities. Together, these studies emphasized the central role of market sensing in enabling firms to proactively address market changes and customer needs. Advanced data

analytics provide deeper insights into customer behavior, enabling precise targeting and personalized offerings. Reliance on data-driven strategies poses risks, including data privacy concerns and potential misinterpretation of data. By effectively utilizing market sensing capabilities, telecommunications firms can better navigate the dynamic business landscape and secure a competitive advantage. Building on the foundations of continuous learning, leveraging customer data, and involving customers in innovative approaches, it is equally important for firms to engage in technological foresight. This involves predicting future technological developments and their potential impact on the industry, enabling firms to stay ahead of technological trends and innovate proactively. By integrating technological foresight with market sensing, telecommunications firms can strategically position themselves to capitalize on emerging opportunities and mitigate potential risks.

Technological Foresight and Trend Monitoring

Technological foresight involves predicting future technological developments and their potential impact on the industry. Monitoring trends, such as the rise of AI and 5G, enables firms to position themselves strategically in the market. The rapid pace of technological change can make it challenging for firms to predict future trends and invest effectively. This uncertainty can lead to either missed opportunities or wasted resources on unfruitful ventures.

Role of Technological Foresight

Technological foresight is an important aspect for telecommunications firms to stay ahead of technological trends and innovate proactively. Teece (2021) highlighted the

importance of a capability theory of the firm, which includes the ability to foresee and adapt to technological changes. Similarly, Zhang et al. (2022) emphasized the importance of tech trend analysis in the rollout of 5G, noting that firms must continuously monitor technological advancements to stay competitive. Lee and Trimi (2021) also discussed the role of innovation in creating a bright future, suggesting that firms need to adopt proactive approaches to predict and adapt to technological changes. The findings of the aforementioned studies emphasize the role of technological foresight in enabling firms to exploit new opportunities and effectively reinforce their market position. Considering future scenarios allows telecommunications firms to prepare for various potential outcomes, reducing the risks associated with rapid technological change. By strategically applying technological foresight, telecommunications firms can enhance their ability to innovate and remain competitive in a rapidly evolving industry. Effective technological forecasting and trend monitoring require a combination of continuous learning, proactive innovation, and strategic planning. Similarly, environmental monitoring is crucial for telecommunications firms to stay informed about external factors, including regulatory changes, economic shifts, and competitive dynamics. By integrating environmental monitoring with technological foresight, firms can develop a comprehensive strategy to navigate the industry's complexities.

Environmental Scanning and Competitive Intelligence

Environmental scanning is crucial for telecommunications firms to comprehend the competitive forces shaping industry dynamics and to devise strategies to mitigate threats and capitalize on opportunities. Porter (2020) revisited the concept of competitive

strategy, emphasizing the importance of understanding the competitive forces that shape industry dynamics. Similarly, Aguilar and Smith (2021) emphasized that environmental scanning is essential to gain a competitive edge, as it enables firms to anticipate and respond to external changes. Min and Kim (2022) discussed the role of big data analytics in enhancing competitive intelligence, arguing that leveraging big data allows firms to gain deeper insights into market trends, customer behavior, and competitor activities. Together, these studies emphasize the crucial role of environmental scanning in enabling firms to proactively address external challenges and maintain competitiveness. A structured approach to environmental scanning helps firms identify emerging trends and potential disruptions early, enabling timely strategic adjustments. The effectiveness of environmental scanning depends on the firm's ability to accurately process and interpret the collected data. Misinterpretation of data can lead to flawed strategic decisions, which can be detrimental to the firm's competitiveness. By effectively utilizing environmental scanning and competitive intelligence, telecommunications firms can enhance their ability to make informed strategic decisions and maintain a competitive edge in a rapidly evolving market.

Resource Orchestration and Allocation

In an increasingly complex and competitive business landscape, firms must effectively orchestrate and allocate resources to sustain innovation, operational efficiency, and strategic growth. Resource orchestration refers to how firms mobilize, structure, and deploy their financial, human, and technological assets to create value and maintain a competitive advantage (Sirmon et al., 2011; Moreira et al., 2024). Resource

allocation, on the other hand, focuses on optimizing the distribution of financial, human, and technological assets to ensure maximum efficiency, responsiveness, and adaptability in dynamic market conditions. Successful resource orchestration involves aligning capabilities with strategic objectives, balancing short-term operational needs with long-term sustainability, and leveraging cross-functional collaboration to enhance overall performance.

In the telecommunications industry, where rapid technological advancements and regulatory shifts create volatile environments, effective resource management enables firms to scale innovations, optimize infrastructure, enhance overall performance, and respond swiftly to market changes (*Moreira et al., 2024*). The following section explores how firms utilize resource orchestration and allocation to enhance agility, improve competitiveness, and drive sustained performance.

Innovation, Implementation, and Sensing

Innovation, implementation, and sensing are important processes through which firms operationalize dynamic capabilities. These processes enable organizations to identify opportunities in turbulent environments, implement strategic initiatives effectively, and scale innovation to sustain competitive advantage. As part of resource orchestration and allocation, these dynamic capabilities enable firms to realign and reconfigure their assets to meet changing environmental demands.

Westerman et al. (2021) conceptualized innovation not as a one-time act but as a transformational capability, driven by sensing digital shifts—defined as the ongoing adoption of emerging technologies and digital strategies that reshape business models and

operational efficiencies (McKinsey, 2024)—and embedding the capacity to proactively use these digital shifts in core business processes to foster continuous process improvement in their operations. Their work emphasized how digital leadership enables the identification of new opportunities and facilitates the successful implementation of change by operationalizing these opportunities into daily operations.

Similarly, Chesbrough (2023) advanced the concept of open innovation, arguing that firms increasingly rely on external sources, such as customers, suppliers, and partners, to co-create value, thereby extending their innovation boundaries and necessitating adaptive resource configurations. Keller and Meaney (2020) provided a practical lens, emphasizing the execution gap that often undermines innovation efforts. The above-cited authors stress that many firms fail to achieve transformational outcomes not because of poor ideas, but because of insufficient follow-through in implementation, indicating the centrality of effective resource deployment and orchestration.

Collectively, the three studies align with the dynamic capabilities framework, particularly Teece's (2007) triad of sensing, seizing, and transforming. Westerman et al. (2021) offered empirical support for the "sensing" capability, arguing that successful firms proactively scan the digital landscape to anticipate shifts. In similar fashion Chesbrough's (2023), advocated for open innovation, implying that dynamic sensing involves recognizing and leveraging knowledge beyond firm boundaries—a position that expands the original conceptualization of internal learning mechanisms. While both Westerman et al. (2021) and Chesbrough (2023) provided robust arguments for proactive

innovation, their perspectives may understate the organizational frictions that inhibit scaling.

Keller and Meaney (2020) addressed this gap by focusing on internal resistance, capability misalignment, and leadership failure during implementation. Their analysis aligns with dynamic capability literature, which cautions that merely possessing capabilities does not guarantee their effective use (Helfat & Peteraf, 2003). Firms must actively develop and apply these capabilities to adapt successfully to changing environments. This perspective is supported by Arndt et al. (2022), who argued for the necessity of structured processes and strategic adaptation, emphasizing that firms that fail to evolve risk stagnation and diminished market relevance. None of the three studies fully resolves the tension between exploitation of existing capabilities and exploration of new ones—a central paradox in dynamic capabilities theory (March 1991).

While Westerman et al. (2021) advocated agile scaling, they assumed a level of organizational flexibility that may not exist in legacy firms. Chesbrough's (2023) open innovation model, while promising, may also overestimate firms' absorptive capacity to integrate external knowledge effectively—an issue closely linked to the absorptive capacity literature (Cohen & Levinthal, 1990; Zahra & George, 2002). Understanding the dynamic interplay between innovation, sensing, and implementation deepens our understanding of how firms orchestrate and allocate resources to maintain strategic agility. The above mechanisms are not linear or discrete, but interdependent, requiring deliberate capability building and continuous alignment between strategic intent and operational execution. The next section will explore how firms structure these resource

decisions through formal and informal mechanisms of resource orchestration and allocation.

Resource Orchestration and Allocation

Resource orchestration and allocation refer to the processes through which firms structure, bundle, and leverage their tangible and intangible assets to respond to changing environmental conditions. As a dynamic capability, resource orchestration enables strategic flexibility by ensuring that resources are not only available but also effectively aligned and reconfigured to meet emerging challenges and opportunities. Sirmon et al. (2020) argued that resource orchestration is important for managing dynamic environments, particularly when competitive advantage depends on how, rather than what, resources are used. Their model emphasized three key actions: structuring, bundling, and leveraging resources to create and sustain value.

Peteraf and Barney (2021) similarly focused on dynamic resource allocation, emphasizing the need for organizations to continuously reassign resources to align with shifting priorities and market demands. Mahmood et al. (2022) linked resource alignment with strategic agility, positing that firms with high alignment across strategic goals, resource deployment, and leadership direction are better able to respond rapidly to change. The above-cited authors emphasized that rigid allocation processes can hinder responsiveness, especially in volatile sectors like telecommunications. Together, the studies' findings reinforce the dynamic capabilities perspective by highlighting that resource advantages are not static but must be actively managed.

Sirmon et al. (2020), building on earlier work (Sirmon, Hitt, & Ireland, 2007) provided empirical support for resource orchestration as a performance-enhancing capability. Their structured approach offered a comprehensive framework, yet its prescriptive nature may underplay the informal, emergent aspects of resource decisions, particularly in entrepreneurial or digital firms. Peteraf and Barney (2021) further developed this conversation by examining the micro-foundations of resource movement—how decisions are made, at what speed, and with what political and organizational frictions. Their dynamic resource allocation model bridges the strategic and operational levels, but it assumes transparency and managerial rationality that may not always be present in complex firms.

Mahmood et al. (2022) contributed to the literature by focusing on firm agility, adaptiveness, and resilience, but they may overstate the ease of aligning resources across silos and hierarchies. Alignment often requires trade-offs that reflect deeper power dynamics and capability tensions. For instance, firms may face internal resistance when reallocating resources away from historically dominant units even if such moves are strategically necessary. Understanding resource orchestration and allocation helps clarify how dynamic capabilities are enacted through real-time decisions. It also sets the stage for the next topic, as leadership is the engine that guides and legitimizes resource deployment in volatile environments.

Leadership in Strategic Decision-Making

Strategic leadership is a central enabler of dynamic capabilities, especially in environments characterized by complexity, ambiguity, and rapid change. Leaders play a

crucial role in identifying opportunities, devising strategic responses, and coordinating the allocation of organizational resources. Hitt et al. (2023) emphasized the importance of *strategic leadership* in dynamic environments, arguing that leaders must possess cognitive and social agility to interpret complex information and guide adaptive responses. The above authors identify vision creation, stakeholder engagement, and capability development as essential leadership tasks. Bass and Riggio (2022) revisited *transformational leadership* theory, highlighting how leaders who inspire, intellectually stimulate, and demonstrate individualized consideration can drive innovation and organizational learning.

The transformational leadership style aligns well with the demands of dynamic capabilities, which require a combination of adaptability and vision. Wamba et al. (2021) noted that, in the telecommunications industry, leadership influences digital transformation outcomes by shaping strategic priorities and allocating digital resources. Their findings highlighted that leadership is not only about direction, but also about enabling the organization to reconfigure itself in response to digital disruption. These studies converge on the view that leadership is not peripheral but central to the development of dynamic capabilities.

Hitt et al. (2023) brought much-needed specificity to the definition of strategic leadership in uncertain environments, grounding their insights in empirical research across high-velocity sectors. Their work assumed a level of leader autonomy that may be constrained in bureaucratic or regulated settings. Bass and Riggio's (2023) work remains foundational, but critiques of transformational leadership, such as its potential to devolve

into charisma without substance, remain relevant. Their framework does not always account for distributed leadership or emergent leadership behaviors, which are increasingly observed in agile or networked firms.

Wamba et al. (2021) provided valuable industry-specific insights on leadership, but their emphasis on digital transformation may obscure broader strategic leadership challenges, such as navigating trade-offs between short-term efficiency and long-term innovation. Strategic leadership underpins effective resource orchestration and the development of dynamic capabilities. Leaders shape not just vision and values, but also the strategic pathways through which resources are mobilized, and innovation is implemented.

This foundational role makes leadership a critical domain for further research into how firms adapt and thrive in complex, dynamic environments. While effective orchestration ensures the mobilization of current resources, sustained competitiveness requires organizations to continually reconfigure their capabilities in response to environmental turbulence. The necessity introduces the third core dimension of dynamic capabilities—transforming capabilities and organizational agility, which examines how firms adapt, evolve, and maintain resilience in rapidly shifting contexts.

Transforming Capabilities and Organizational Agility

Transforming capabilities represent the engine of organizational renewal, enabling firms to reconfigure assets, restructure processes, and realign knowledge systems in response to evolving technologies, market shifts, and external disruptions. Unlike one-time adjustments, these capabilities support continuous reinvention, allowing

firms to maintain strategic coherence while adapting to new realities. As such, transformation is not merely reactive but a proactive capability that underpins organizational agility, resilience, and sustained competitiveness in dynamic business environments.

Organizational Learning and Knowledge Management

Organizational learning and knowledge management serve as foundational mechanisms for capability transformation. The two – learning and management - enable firms to absorb, internalize, and adapt knowledge for continuous renewal and innovation. Nonaka and Toyama (2022) revisited the concepts of socialization, externalization, combination, and internalization. (SECI) model, emphasizing how knowledge creation facilitates continuous innovation. They argued that dynamic environments demand not just knowledge acquisition but a purposeful conversion of tacit knowledge into actionable organizational routines.

Grant (2021) framed dynamic knowledge integration as a strategic capability that enables firms to align their decision-making with rapidly changing knowledge flows. Grant's work reinforces the need for absorptive capacity and coordinated routines to synthesize external and internal knowledge and remain competitive. Wang et al. (2023) focused on coordination as instrumental in developing knowledge-sharing practices within telecommunication firms, identifying how digital tools, cultural enablers, and cross-functional integration drive innovation outcomes. The authors emphasized that knowledge fragmentation impedes transformation, particularly in firms with legacy

systems or rigid silos. Collectively, these perspectives affirm that learning and knowledge integration are not passive but deliberate organizational efforts.

Nonaka and Toyama (2022) highlighted the philosophical underpinnings of learning, but their approach may underplay the structural inhibitors that modern firms face. Grant (2021) introduced a more practical, system-level view of how firms strategically integrate and deploy diverse knowledge assets. Wang et al. (2023) contributed empirical clarity by identifying operational challenges, though their findings may be context-bound to the telecom sector. While all three studies emphasize the significance of knowledge in transformation, they collectively suggest that learning must be embedded within agile structures and a culture of readiness to produce strategic value.

Structural Flexibility and Change Management

To support capability transformation, management must cultivate corporate cultures that provide structural flexibility, build readiness for change, and continuously encourage it. These enablers ensure that reconfiguration efforts are not stalled by rigidity, resistance, or inertia, typical impediments to constructive corporate growth. Kotter (2020) revisited his change leadership model for turbulent times, emphasizing urgency, coalition-building, and iterative wins as mechanisms for embedding transformation into the organizational fabric. Kotter's (2020) framework provided a timeless roadmap, that has been updated for environments where uncertainty is constant.

Armenakis and Harris (2021) focused on organizational readiness, arguing that change initiatives succeed only when employees perceive them as both necessary and achievable. Their model introduced diagnostic tools for assessing attitudes, beliefs, and

institutional barriers to change. In a similar vein, Graetz et al. (2023) examined structural agility in strategic renewal processes, identifying organizational designs, such as modular teams and distributed leadership, as key enablers of ongoing adaptation.

The research by Graetz et al. (2023) emphasized the balance between formal structures and emergent, flexible workflows. The studies' contributions converge on the idea that transformation requires intentional architecture and mindset shifts. Kotter (2020) provided a visionary perspective, but his prescriptive model may underestimate the political and cultural dynamics at play in large organizations. Armenakis and Harris (2021) added depth by focusing on psychological and cultural dimensions, offering practical insight into resistance management. Graetz et al. (2023) introduced a modern, design-thinking lens that accounts for the complexity and speed of the digital era. Together, literature suggests a multidimensional view of change, where structure, leadership, and culture should be aligned to create sustainable transformational pathways.

Digital Transformation and Agile Frameworks

Digital transformation and agile frameworks represent the operational face of capability transformation, enabling firms to respond rapidly to disruptions through modular technologies, decentralized decision-making, and iterative development. Sambamurthy et al. (2022) examined how IT-enabled agility fosters real-time responsiveness, customer-centric innovation, and cross-functional collaboration. Their study highlighted how firms can leverage digital platforms to sense and respond to market changes dynamically, adaptively, and agilely.

Chen et al. (2021) explored the role of agile business models and digital ecosystems, arguing that agility is both a mindset and a structural requirement. The authors demonstrated that digital-native firms are structurally better equipped to reconfigure value chains than traditional incumbents. González and Melo (2023) assessed agile methods in telecom transformations, finding that iterative sprints, cross-functional squads, and continuous delivery pipelines improve responsiveness and strategic alignment, provided cultural inertia and resistance to change are addressed. These sources present digital transformation not as a one-off project but as a continuous capability.

Sambamurthy et al. (2022) also effectively demonstrated how IT infrastructure enables transformation but may understate the human capital required. Chen et al. (2021) offered a forward-looking view of business models, yet their emphasis on digital-native firms might underplay the barriers faced by legacy organizations. González and Melo (2023) bridged this gap by examining how agile principles are applied within traditional sectors, revealing both the promise and pitfalls. Digital agility is portrayed as both an enabler and a challenge, requiring not just new technologies but also fundamental shifts in corporate structure, personnel skills, and corporate culture. The literature suggests that transformation is a continuous, adaptive process in which businesses must align people, processes, and technology to remain competitive. Rather than a straightforward path, it requires ongoing adjustments and strategic coordination to ensure a sustained competitive advantage (Cuesta Partners, 2025; Mankins & Litre, 2024; Tarnovskaya, 2023).

Competitive Advantage and Strategic Positioning

Dynamic capabilities (DCs) are crucial to how firms in the rapidly evolving telecommunications sector achieve and sustain a competitive advantage. In an environment characterized by rapid technological disruption, regulatory pressures, shifting consumer expectations, and intense market competition, DCs enable firms to differentiate strategically, create superior customer value, and respond adaptively to emerging challenges. By continuously aligning internal competencies with external opportunities, firms can craft positioning strategies that are not only distinctive but also resilient and sustainability-oriented. The next section explores how dynamic capabilities contribute to long-term market leadership by shaping branding, innovation, service excellence, and strategic alignment within the telecom industry.

Strategic Differentiation and Branding

DCs foster strategic differentiation by enabling telecom firms to continually evolve their branding in response to market and technological changes. Keller (2020) highlighted that brands in digital environments should dynamically adjust their narratives to remain relevant. Rindova and Kotha (2021) argued that successful branding itself constitutes a dynamic organizational capability, while Homburg et al. (2023) complemented these perspectives by showing that firms engaging in continuous brand evolution are better able to stand out in saturated markets. While Keller (2020) emphasized responsiveness to digital consumer expectations, Rindova and Kotha (2021) further advanced the discussion by positioning brand-building as an organizational learning process, essential for competitive renewal.

Homburg et al. (2023) provided empirical support by demonstrating that firms employing dynamic branding strategies outperform peers relying on static differentiation tactics. The three studies do not adequately address the challenges telecom firms face in aligning brand agility with internal operational systems, particularly in legacy organizations burdened with bureaucratic inertia. The failure to effectively align brand agility with operational systems limits a complete understanding of how dynamic branding capabilities are practically cultivated and sustained. While dynamic branding is crucial for strategic differentiation, it must be integrated with broader organizational agility, a theme that also extends into customer value creation strategies.

Customer Value Creation

DCs enhance firms' ability to create and co-create superior customer value, positioning them for sustained competitive success. Ulaga and Eggert (2022) emphasized the importance of dynamic sensing and relational capabilities for anticipating customer needs in telecom services, while Payne and Frow (2020) asserted that strategic customer relationship management (CRM) systems enable real-time co-creation of value. Consistent with customer-centric practices, Lusch and Nambisan (2021) proposed that dynamic ecosystem orchestration around customer needs is critical for competitive resilience. Although all three sources affirm the centrality of dynamic customer engagement, their focal points diverge: Ulaga and Eggert (2022) emphasized operational capabilities, Payne and Frow (2020) highlighted technological enablers, and Lusch and Nambisan (2021) broadened the view to inter-organizational networks. A limitation shared across the studies is the under-exploration of internal structural barriers, such as

data silos and cultural resistance, that can hinder the creation of dynamic customer value, particularly in large incumbent telecom firms.

While the ecosystem view (Lusch & Nambisan, 2021) is conceptually rich, empirical models detailing effective orchestration mechanisms remain scarce. Building dynamic customer value-creation mechanisms requires not only external market engagement but also substantial internal capability development, paralleling the need for long-term strategic sustainability initiatives.

Sustainability and Long-Term Market Positioning

Sustainability-oriented data centers are increasingly important for achieving a lasting competitive advantage and favorable strategic positioning in the telecom sector. Hart and Milstein (2020) argued that embedding sustainability into core innovation capabilities strengthens long-term competitiveness. Nidumolu et al. (2021) demonstrated that green innovation in telecom firms' operations can proactively create new competitive spaces. Yang et al. (2023) found that firms integrating sustainability initiatives into their strategic frameworks enhance brand loyalty and market differentiation.

While all three studies support the strategic value of sustainability, their emphasis differs: Hart and Milstein (2020) advocated for a broad integration of sustainability into innovation systems, whereas Nidumolu et al. (2021) offered specific operational strategies for telecom, and Yang et al. (2023) focused on measurable market outcomes. The three studies largely overlooked the short-term financial trade-offs and organizational resistance telecom firms face when embedding sustainability initiatives—a critical omission given investor pressures for quick returns.

Longitudinal studies capturing the evolution of sustainability as a dynamic capability over successive innovation cycles are notably absent. While sustainability-driven capabilities are essential for strategic positioning, firms must simultaneously address internal structural challenges to fully leverage these advantages, connecting back to broader dynamic capability frameworks.

Industry-Specific Challenges in U.S. Telecommunications

The U.S. telecommunications industry operates in a complex, highly regulated landscape that significantly influences the development and deployment of dynamic capabilities (DCs). Distinct challenges, such as stringent regulatory frameworks, capital-intensive infrastructure requirements, and rapidly evolving consumer expectations, shape how firms adapt and compete. These factors not only constrain strategic flexibility but also demand heightened organizational agility, innovation, and resourcefulness. As a result, the ability to cultivate and leverage DCs becomes critical to maintaining competitiveness, enhancing performance, and ensuring long-term resilience in an increasingly digital and customer-centric market.

Regulatory and Policy Constraints

Regulatory frameworks in the U.S. telecommunications sector presented a dual reality: they act as both safeguards of market fairness and, at times, barriers to innovation and expansion. Lee et al. (2021) argued that stringent policies designed to prevent monopolistic behavior can inadvertently stifle technological progress and limit firms' ability to respond to disruptive innovations. Overly prescriptive regulations may slow the adoption of emerging technologies, restricting firms' ability to experiment with new

service models or infrastructure advancements. Similarly, Faulhaber (2020) emphasized that restrictive market-entry policies disproportionately disadvantage smaller firms, thereby limiting competitive dynamism and reinforcing the dominance of established players. These limitations create significant financial and strategic hurdles for new entrants seeking to establish a foothold in the industry.

Conversely, Wallsten (2023) presented a more optimistic perspective, asserting that well-designed regulatory policies can stimulate investment by providing market clarity and stability. For instance, frameworks that encourage infrastructure development through targeted incentives can help firms allocate resources efficiently and advance next-generation connectivity. The FCC (2021) highlighted broadband expansion initiatives as a regulatory-driven success, demonstrating how structured policy efforts can accelerate deployment in underserved regions. The agency also notes inefficiencies arising from bureaucratic rigidity, which can delay project execution and inflate costs.

The debate over telecommunications regulation illustrates the challenge of balancing oversight with market flexibility. While strict policies may hinder adaptability, they also ensure consumer protection, enforce competitive equity, and establish long-term industry stability. As firms navigate this complex landscape, effective regulatory adjustments—such as flexible licensing, streamlined approval processes, and strategic investment incentives—can mitigate barriers while fostering innovation. These regulatory pressures are crucial for enabling firms to invest confidently in next-generation infrastructure, ensuring long-term competitiveness in an evolving digital economy.

Infrastructure and Capital Intensity

Infrastructure expansion requires substantial financial investment, which significantly affects a firm's ability to compete in the telecommunications industry. While large firms often benefit from economies of scale, smaller firms struggle with financial constraints, affecting their ability to expand and maintain service quality. Kim and Yoo (2022) argued that firms investing heavily in infrastructure tend to provide superior service quality, suggesting that capital-intensive strategies can enhance competitiveness. Weller (2022) warned that fiber network expansion imposes substantial financial burdens, particularly for new entrants, who may lack the resources to compete with established providers. Global benchmarking by the European Commission (2020) reveals significant disparities in investment trends, with regions with robust capital support experiencing faster infrastructure growth than those with limited funding.

Similarly, ITU (2021) proposed cost-effective deployment approaches but acknowledges that high upfront costs hinder scalability, reducing market accessibility for emerging firms. Investment in infrastructure serves as both a competitive advantage and a barrier to industry expansion. Established firms with greater financial flexibility can leverage their resources to maintain technological superiority and reinforce their market position. In contrast, smaller firms face challenges in securing capital, leading to market consolidation that restricts competition.

While cost-effective strategies, such as shared infrastructure models, offer potential solutions, they require supportive regulatory frameworks and industry collaboration. Without addressing financial disparities, firms lacking investment

capabilities may struggle to sustain long-term growth, thereby limiting the diversity of service providers and affecting overall industry resilience. High infrastructure costs not only impact firms' operational strategies but also directly influence consumer pricing and service expectations, thereby increasing churn risks. As providers adjust costs to accommodate capital investments, affordability concerns may prompt consumers to seek alternatives, reshaping competitive dynamics within the sector.

Consumer Expectations and Churn Risk

Telecom firms must manage evolving consumer demands and retention challenges. Oliver (2020) found that satisfaction is tied to service reliability, while Gomez and Vargas (2022) proposed using predictive analytics to mitigate churn. Chatterjee et al. (2023) emphasized the importance of personalized engagement, arguing that experience-based retention enhances loyalty. Accenture (2022) warns that digital transformation is necessary, but failing to meet expectations leads to competitive disadvantages. Firms must continually innovate to retain customers, striking a balance between technological advancements, affordability, and service quality. Consumer dynamics shape industry competitiveness, reinforcing the need for agile strategy adaptation.

The U.S. telecommunications industry faces a dynamic interplay of regulatory constraints, capital-intensive infrastructure investments, and evolving consumer expectations. While policy restrictions shape market dynamics, firms must navigate financial challenges and align their capabilities with shifting consumer preferences. The sector's competitive landscape is increasingly shaped by firms that successfully balance

regulatory compliance, investment efficiency, and consumer-centric strategies, reinforcing the critical role of dynamic capabilities in sustaining industry performance.

Conclusion of the Literature Review

In the literature review, I explored the role of dynamic capabilities (DCs) in shaping the competitiveness and performance of telecommunications firms, focusing on five thematic dimensions: sensing capabilities, resource orchestration, organizational agility, strategic positioning, and industry-specific challenges. The synthesis revealed a consistent consensus on the strategic importance of DCs in enabling firms to navigate technological disruptions, regulatory complexities, and evolving market demands. Literature remains fragmented and lacks an integrated framework that connects these capabilities to firms' competitiveness and performance in a cohesive, empirical manner.

Key gaps identified include the limited empirical validation of how sensing capabilities translate into performance gains, insufficient integration between resource orchestration and agility frameworks, and a lack of clarity on how firms balance regulatory compliance with adaptive strategies. Studies underrepresent the dynamic interplay among leadership styles, digital transformation, and resource alignment, which are critical to sustaining competitive advantage in capital-intensive, fast-evolving telecom environments.

The above-mentioned gaps justify a comprehensive investigation into how managers in U.S. telecommunications firms leverage dynamic capabilities to drive sustained strategic outcomes. By developing and empirically testing an integrated model that links sensing, orchestration, and agility, the current study aims to illuminate how

DCs contribute to adaptive strategy formulation and execution. This sets the stage to answer the central research question: How do telecommunications firms' managers leverage dynamic capabilities for sustained competitive advantage and enhanced performance?

The insights gained will not only enrich theoretical discourse on dynamic capabilities in regulated, high-tech industries but also offer practical guidance for telecom leaders seeking to align innovation with resilience and responsiveness in a digitally volatile environment.

Transition

The preceding literature review critically examined the role of dynamic capabilities (DCs) in the telecommunications industry, exploring central themes including sensing capabilities, resource orchestration, organizational agility, strategic positioning, and industry-specific constraints. This analysis uncovered key areas of consensus and divergence, as well as significant gaps in empirical evidence, particularly regarding how DCs are operationalized to drive competitiveness and performance. By synthesizing insights across these thematic areas, the review established a clear rationale for this study and laid the groundwork for a conceptual framework that aims to bridge the gap between theoretical understanding and practical application. Building on this foundation, the next section outlines the research methodology for empirically investigating how managers in U.S. telecommunications firms leverage DCs to achieve sustained competitive advantage.

Section 3: Research Project Methodology

In this section, I present the methodological framework guiding this study, encompassing research ethics, project scope, target population, sampling strategies, participant selection, data collection procedures, interview design, and data organization techniques. By integrating interviews, document analysis, and a range of flexible data collection tools, the pragmatic inquiry approach strikes a balance between theoretical rigor and real-world relevance. This dual emphasis ensures that the study's conclusions are not only empirically grounded but also practically meaningful, bridging key gaps in the literature and supporting strategic decision-making within the U.S. telecommunications sector.

Project Ethics

In my role as a researcher, I was the primary instrument for data collection and interpretation, a core feature of qualitative pragmatic inquiry that allows for context-sensitive understanding and reflexive engagement with participants (Abbas et al., 2022; Miller & Kim, 2023). I was responsible for recruiting potential participants from U.S.-based telecommunications firms, facilitating data collection, conducting semi-structured interviews, and ensuring the ethical handling and secure storage of collected data. This hands-on approach enabled adaptive engagement with participants while maintaining the methodological integrity of the study (Tracy, 2020).

I did not hold any personal or professional affiliations with the participating organizations or their personnel. This absence of prior relationships reduced potential bias and supported the credibility and trustworthiness of the findings. I engaged in

continuous reflexivity throughout the research process to identify and mitigate any assumptions or perspectives that could shape the data collection or interpretation process (Tracy, 2020; Yin, 2018).

My ethical responsibilities were guided by the *Belmont Report* (U.S. Department of Health and Human Services [HHS], 1979), which emphasized the principles of respect for persons, beneficence, and justice. Participants were treated as autonomous individuals with the right to informed decision-making, protection from harm, and equitable treatment.

In conducting this research on the role of dynamic capabilities in shaping a firm's competitiveness and performance, ethical considerations were paramount. As such, informed consent was obtained from all participants prior to data collection. Participants were provided with a comprehensive informed consent form that outlined the purpose of the study, the nature of their involvement, the voluntary nature of participation, confidentiality measures, and their right to withdraw at any point without any consequences.

The consent process included:

1. A plain-language explanation of the study's objectives and procedures
2. Assurances of anonymity and confidentiality
3. Details on data storage, usage, and disposal
4. A description of any potential risks or benefits

Clear contact information for the researcher and supervisory body was provided for any queries or concerns by participants. They were required to sign and date the form

before participating. A copy of the signed form was provided to each participant for their records. In line with best practices for participant autonomy and institutional ethics, individuals were informed that they may discontinue participation at any time during the study, and any data collected before their withdrawal would be deleted upon request (Clark-Kazak, 2021; Tolich & Tumilty, 2023). No financial or material incentives were offered, as participation was entirely voluntary and motivated by a shared interest in contributing to scholarly understanding of strategic management and organizational competitiveness.

Confidentiality and data protection were upheld through secure, layered protocols. Personally identifiable information and organizational names were masked using pseudonyms. Digital interview recordings and transcripts were stored on encrypted, password-protected drives. Any physical materials (e.g., signed consent forms) were kept in a locked file cabinet, accessible only to me. These recordings and transcripts will be retained for 5 years and then securely destroyed in accordance with Walden University and Institutional Review Board (IRB) guidelines, as well as prevailing ethical standards in qualitative research (Catania et al., 2023; Stokes & Wallwork, 2021).

I complied fully with Walden University's Institutional Review Board (IRB) requirements. The final doctoral manuscript included the official IRB approval number after authorization. All ethical procedures, including the consent process, withdrawal rights, and data management protocols, were transparently documented in the final manuscript and reflected in the appendices and Table of Contents. Through these strategies, the study will be aligned with institutional expectations and broader ethical

standards for rigorous, responsible qualitative inquiry (American Psychological Association (APA), 2020; Tracy, 2020).

Nature of the Project

I was the primary data collection instrument in this qualitative, pragmatic inquiry, directly engaged with participants and immersed in the research context. I employed a qualitative research methodology to investigate how dynamic capabilities shape competitiveness and performance in U.S. telecommunications firms. Qualitative research was appropriate for exploring complex, context-dependent organizational processes that cannot be effectively examined through numerical data alone (Chetty & Stangl, 2021; Jensen, 2022).

Qualitative research is used to gain rich, interpretive insights into managerial behaviors, strategic decision-making, and firm adaptation by uncovering the meanings and experiences that shape management's organizational responses in dynamic contexts (Gaya & Smith, 2021; MacIntosh et al., 2022). Recent scholarship affirms the value of qualitative inquiry in management research, particularly when examining the evolution of capabilities in dynamic environments (Vega et al., 2023).

Aligned with the qualitative approach, I adopted a pragmatic inquiry design, which emphasized practical problem-solving and flexible engagement with real-world contexts. Researchers use pragmatism to tailor their methods to the research question, striking a balance between conceptual rigor and practical relevance (Feilzer & Haverkamp, 2021; Miles & Ringhofer, 2023). This approach is particularly appropriate for studies examining innovation, strategic agility, and resource orchestration in volatile

industries (Mackenzie & Knipe, 2021). Pragmatic inquiry also fosters methodological integration and stakeholder relevance, key priorities in contemporary organizational research (Tashakkori & Teddlie, 2020). Through this lens, I generated actionable insights that advanced theoretical understanding and management practice.

Population, Sampling, and Participants

The target population for this study included mid- to senior-level managers employed in U.S.-based telecommunications firms, who were actively engaged in strategic planning, innovation leadership, and resource orchestration. Participants were eligible if they: (a) held at least a bachelor's degree in a relevant discipline and (b) possessed a minimum of 5 years of experience in roles that involved deploying dynamic capabilities to drive organizational performance and competitiveness. This eligibility profile aligned with recent qualitative research indicating the importance of selecting experienced, decision-making professionals to ensure data credibility and relevance when investigating complex strategic phenomena (Olivares & Cameron, 2023). This eligibility criterion ensured that participants possessed sufficient contextual and operational insights to make meaningful contributions to the research objectives (Ritchie et al., 2021).

A purposive sampling strategy was employed to select participants who offered rich, relevant, and diverse perspectives on the development and application of dynamic capabilities in rapidly evolving telecommunications environments (Gibbs & Sullivan, 2023; Etikan & Bala, 2021). The sample size was six participants, which is consistent with qualitative research standards that prioritize depth of understanding over generalizability (Low & Johnson, 2022). This size also supports achieving data

saturation, defined as the point at which no new themes emerge from the interviews (Varpio et al., 2023).

Access to participants was facilitated through professional networks, LinkedIn, and telecommunications industry associations. I initiated contact using a pre-approved recruitment email and ensured participants met the study's eligibility criteria before approving their participation (Yin, Huang, & Zhang, 2021). To establish a working relationship with participants, I adopted an open and respectful communication style, clearly explaining the study's purpose, voluntary nature, confidentiality procedures, and participant rights during the consent process. These sampling steps enhanced participants' trust and promoted a transparent, ethically sound research environment (Gibbs & Sullivan, 2023).

The characteristics of the selected participants—such as their roles in innovation, strategic agility, and resource orchestration—aligned directly with the purpose of this study. Participants were recruited from mid-sized to large telecommunications firms across various service categories (e.g., wireless, broadband, cable, and data). These recruiting strategies ensured a varied yet focused dataset. This deliberate selection of participants who met my inclusion criteria enhanced the transferability and contextual richness of the study's findings (Ritchie et al., 2021; Tracy, 2020).

Data Collection Activities

As the researcher in this qualitative pragmatic inquiry, I served as the primary data collection instrument, responsible for designing, conducting, and interpreting all data gathering activities. This role aligned with the interpretivist paradigm underlying

qualitative research, in which the researcher's insights, interactions, and reflexivity are critical for deriving meaning from participants' experiences (Patton, 2015). This qualitative, pragmatic inquiry employed a multi-method data collection approach, centered on semi-structured interviews, observations, and document analysis, to explore how dynamic capabilities influence the competitiveness and performance of U.S. telecommunications firms. As the primary data collection instrument, I conducted and interpreted the interviews directly, ensuring consistency and contextual sensitivity throughout the process (Abbas et al., 2022).

Rationale for the Interview Protocol

An interview protocol (Appendix B) provided a structured yet flexible framework for conducting qualitative interviews. It ensured consistency in data collection across participants while allowing space for rich, individualized narratives to emerge (Castillo-Montoya, 2016). The interview questions were designed using a deductive approach, grounded in the theoretical propositions of the Dynamic Capabilities Framework (DCF) (Schilke & Helfat, 2025; Teece, 2007). This reasoning process enabled direct alignment between each question and the framework's core domains—sensing, seizing, and transforming—ensuring that the data collected was specifically relevant to the study's objectives. By pre-identifying key constructs from the literature, this deductive design enhanced analytic focus and theoretical coherence during both data collection and interpretation (Braun & Clarke, 2022; Miles & Ringhofer, 2023). The protocol served as a procedural guide and a documentation tool, enhancing the transparency and dependability of the study. For this research, the protocol is explicitly aligned with the

Dynamic Capabilities Framework, ensuring theoretical coherence and facilitating the in-depth exploration of strategic sensing, seizing, and transforming processes within telecommunications firms.

Use of the Interview Protocol

I employed a semi-structured interview protocol to guide all interviews. This format balanced predetermined and open-ended questions, with the flexibility to explore follow-up topics based on participants' responses. As the primary data collection instrument, I was responsible for administering the protocol consistently across participants, ensuring that each interview was conducted ethically, respectfully, and with fidelity to the research objectives.

Each interview session began with a brief orientation to the study's purpose, a review of informed consent, and reassurance regarding confidentiality and participant rights. I then proceeded through the core set of key questions—structured into thematic categories reflecting dynamic capability domains—and used probing follow-ups as needed to capture detailed insights.

The interview protocol includes:

1. A scripted introduction and ethical reminders
2. A warm-up question to build rapport
3. Core thematic questions (e.g., on leadership, innovation, resource orchestration)

Space for Spontaneous Probes

A closing prompt was offered to participants with the chance to add anything not yet discussed. A condensed version of the interview protocol appears in Appendix B of this project document, with the full protocol and question map available upon request or IRB submission.

Interview Process

Below is a step-by-step outline of the interview process:

Participant invitation and scheduling: Eligible participants will be contacted via email and provided with a study overview, consent form, and scheduling options.

Pre-Inter View Briefing

At the start of each session, I:

1. Confirmed informed consent (verbal or signed)
2. Explained the purpose of the study and the use of recordings
3. Reassured confidentiality and voluntary participation

Interview Execution

4. The interview followed the semi-structured protocol.
5. Audio and video recordings captured using encrypted tools.
6. Field notes and reflexive comments were logged during and immediately after each session.

Postinterview Wrap-Up

- Participants were thanked and offered a transcript summary for member checking.

- Digital files were uploaded to a secure, two-factor authenticated cloud storage location.

Transcription and Review

- Each session was transcribed verbatim.
- Transcripts reviewed against the original audio for accuracy.
- Participants were invited to confirm or clarify their responses through a short follow-up email exchange.

These steps ensured that data was collected ethically, methodically, and in alignment with the study's theoretical focus on dynamic capabilities

To ensure methodological rigor, I adhered to a standardized interview protocol (see Appendix B) that was uniformly applied to all participants. This protocol was designed to enhance consistency, limit researcher bias, and bolster the credibility and dependability of the study. It comprises carefully scripted opening statements, a logically ordered set of questions and prompts, and concluding remarks—all of which were implemented consistently throughout the data collection process (Ruslin et al., 2023). To reinforce the trustworthiness of the findings, each interview was audio-recorded with participant consent, and follow-up communications were conducted to verify that my interpretations accurately reflect the participants' intended meanings. Additional strategies, such as data triangulation—comparing responses across participants—and reflexive journaling, were employed. These interviewing and transcribing methods, including member checking, verbatim transcription, triangulation, and ongoing

reflexivity, are widely endorsed in the qualitative research community for enhancing the validity and reliability of findings (Coleman & Dip, 2021).

Interview Questions

1. How do you define dynamic capabilities within your firm, and what key strategies or processes are in place to nurture these capabilities?
2. In what ways does leadership influence strategic decision-making processes, particularly in times of rapid technological or market change?
3. Can you provide examples where effective resource orchestration or allocation has improved your firm's competitive positioning?
4. How does your organization ensure agility and flexibility in transforming capabilities to adapt to industry disruptions?
5. What methods or practices does your firm employ to foster innovation and continuous improvement among your teams?
6. Could you share a specific challenge or success story that highlights the integration of dynamic capabilities and strategic leadership within your organization?
7. How does your organization monitor performance related to dynamic capabilities, and what measures are used to evaluate competitiveness and strategic positioning?

In developing the above sample of interview questions for this qualitative pragmatic inquiry (see Appendix B), I have followed the guidelines outlined in the DBA Checklist provided by Walden's Office of Research and Doctoral Services (ORDS). The

interview questions were deductively derived from the DC's framework and designed as semi-structured, open-ended prompts that align closely with the central research objective, i.e., to explore how mid- to senior-level managers in U.S. telecommunications firms experience, implement, and lead through dynamic capabilities such as sensing, seizing, transforming, innovation, strategic decision-making, and resource orchestration in volatile technological environments. Semi-structured interviews balance focused inquiry with the flexibility to explore emerging themes, a key strength of qualitative designs grounded in pragmatic inquiry (MacIntosh et al., 2022; Miles & Ringhofer, 2023).

Each interview question was intentionally framed to elicit rich, nuanced narratives that revealed both individual managerial experiences and the broader organizational contexts shaping firm agility and competitiveness. Questions were deductively derived from the DCF to deeply probe into themes such as sensing market shifts, leading transformation efforts, and deploying strategic resources. This approach ensured alignment between the data and the research questions, problem statement, and theoretical constructs outlined in the literature (Gaya & Smith, 2021).

Interview prompts were iteratively refined to maintain conceptual relevance, logical flow, and linguistic clarity. As recommended in recent qualitative research, interview questions are viewed not as fixed but as adaptable tools that evolve in response to new insights gained during data collection (Levitt et al., 2021). The structure of the interview protocol (see Appendix B) allowed for probing and clarification, enhancing the trustworthiness and depth of the responses.

To support the study's methodological rigor and trustworthiness, the interview data were triangulated with document analysis, ensuring analytic depth and internal validity. Ethical procedures were observed throughout, including clear communication of participants' rights, confidentiality protections, and the voluntary nature of participation, consistent with IRB policies and qualitative research ethics (Clark-Kazak, 2021).

Data Organization and Analysis Techniques

In this qualitative study, I adopted a rigorous and transparent approach to data organization and analysis, grounded in the Dynamic Capabilities Framework (DCF). The goal was to uncover how organizations develop, adapt, and reconfigure capabilities in response to changing environments (Schilke et al., 2025; Teece, 202).

Data Tracking and Organization Systems

To ensure transparency and auditability, a multi-pronged system was used to document and manage data:

1. **Research Logs:** Chronologically recorded procedural decisions, methodological shifts, and evolving research questions (Paulus & Lester, 2022).
2. **Reflective Journals:** Captured the researcher's positionality, interpretive insights, and reflexive observations throughout the study (Nowell & Albrecht, 2023).
3. **Cataloging and Labeling:** All interview transcripts, analytic memos, and supporting documents were systematically labeled using a digital file

management system with consistent naming conventions and metadata tagging (Leung, 2023).

These tools supported a clear audit trail and enhanced the confirmability of findings.

Data Analysis Process

The analysis followed a logical, sequential, and iterative process, beginning with open coding and progressing through theme development and interpretation. The following methods were employed:

1. Thematic Analysis (Braun & Clarke, 2022): Used to identify and interpret patterns across the dataset that reflect how dynamic capabilities are enacted in organizational contexts.
2. Template Analysis (King et al., 2015): Combines a priori codes derived from the DCF (e.g., sensing, seizing, transforming) with inductively generated themes.
3. Constant Comparative Analysis: Enabled iterative comparison of new data with emerging categories to refine themes and ensure analytical rigor (Nowell & Albrecht, 2023).

This hybrid approach supported both deductive and inductive reasoning - two complementary modes of inquiry that were essential for exploring the nuanced, context-specific nature of dynamic capabilities. Deductive reasoning begins with general theories or frameworks and applies them to specific cases, while inductive reasoning builds broader insights by analyzing patterns and themes emerging from specific observations.

By integrating both approaches, the study is better equipped to examine dynamic capabilities in a way that is theoretically grounded and empirically responsive (Schilke & Helfat, 2025).

Coding Tools and Visualization

To enhance analytical depth and transparency:

1. NVivo and MAXQDA were used for systematic coding, data retrieval, and visualization.
2. Mind-mapping tools (e.g., XMind, NVivo visualizers) helped illustrate relationships between codes, subthemes, and higher-order constructs.
3. Query functions were used to explore co-occurrence patterns and thematic saturation across cases.

These tools supported the development of a robust thematic structure grounded in the DCF's core dimensions: sensing, seizing, and transforming (Leemann & Kanbach, 2021; Teece, 2007;).

Literature Integration and Theoretical Anchoring

Emerging themes were mapped directly onto the Dynamic Capabilities Framework, thereby aligning with recent empirical studies and theoretical advancements (Cavusgil & Deligonul, 2024). This ensured that findings are grounded in participant data and situated within the broader strategic management literature. Recent peer-reviewed studies published since the proposal phase were integrated to maintain relevance and theoretical currency (Schilke et al., 2025).

Data Security and Retention

All raw data, including audio files, transcripts, and analytic documents, were securely stored for a minimum of five (5) years, in accordance with Walden University's IRB protocols. A cloud-based storage system (e.g., Dropbox Business) with two-factor authentication was used to ensure data confidentiality and integrity. This protocol will be disclosed in the participant permission form (Appendix A). transcripts, document files, and analytic memos. These tools will help ensure transparency, auditability, and consistency in data handling and interpretation (Fletcher et a, 2021)

Data Tracking and Reflexivity. Data from semi-structured interviews and document analysis were cataloged and securely stored in labeled digital folders. A research log and reflexive journal were maintained throughout the study to record methodological decisions, emergent insights, and strategies for managing researcher bias. These tools contributed to analytic rigor and allowed for reflective alignment with the pragmatic inquiry approach (Levitt et al., 2021).

Data Analysis Approach. The primary method of data analysis was thematic analysis following Braun and Clarke's (2006) six-phase model, which is well-suited for identifying patterns within qualitative data. Thematic analysis is a particularly effective method in studies using pragmatic inquiry, as it accommodates flexibility while enabling rich theoretical and applied interpretation (Nowell et al., 2023). In addition, narrative analysis was applied to contextualize key managerial experiences and organizational stories, enabling a more profound understanding of how leaders make sense of strategic change (MacIntosh et al., 2022).

Sequential Coding and Analysis Procedures

The analysis began with open coding, during which raw textual data were broken down into meaningful units and assigned initial codes using NVivo software. These codes were then organized using axial coding to identify relationships across categories, enabling the development of broader conceptual themes. Finally, selective coding was applied to consolidate core themes that directly responded to the research questions. This layered and iterative process ensured analytic depth and methodological alignment (Zangirolami-Raimundo et al., 2023). NVivo 14 supported coding, mind-mapping, and thematic organization.

Thematic Focus and Literature Integration

Themes identified through analysis were examined in relation to the study's conceptual framework (deductive), existing literature, and recent scholarly publications that emerged (inductive) during the writing process. This iterative comparison strengthens the interpretive validity of findings and contributes to theory elaboration within the dynamic capabilities perspective (Abbas & Isa, 2022). Themes will be correlated with constructs such as sensing, seizing, transforming, and competitive advantage, ensuring alignment with both literature and participant insight.

Secure Data Storage

All raw data—including interview recordings, transcripts, analytic memos, and reflective notes—are stored on a secure, password-protected external hard drive and encrypted cloud storage. These materials will be retained for a minimum of 5 years, by

Walden University's IRB policy and ethical research standards, after which they will be permanently destroyed (Catania et al., 2023).

Reliability and Validity

In qualitative research, the concepts of reliability and validity are reframed through the lens of trustworthiness, a framework introduced by Lincoln and Guba (1985) and widely adopted in contemporary qualitative inquiry (Ahmed, 2024). Trustworthiness is established through four interrelated criteria: dependability, credibility, transferability, and confirmability. A fifth concept, data saturation, ensures the completeness of data collection. These criteria are not statistically measurable but are achieved through rigorous, transparent, and reflexive research practices (McLeod, 2024; Noble & Smith, 2025).

Dependability (Qualitative Reliability)

Dependability refers to the stability and consistency of research findings over time and across conditions. It ensures that the research process is logical, traceable, and well-documented so that others can understand how conclusions were reached (McLeod, 2024).

To establish dependability, I:

1. Maintained a detailed audit trail documenting all methodological decisions, coding frameworks, and data transformations (Mpofu, 2025).
2. Conducted a pilot test of the interview protocol with non-participant professionals to refine clarity and sequencing (Ahmed, 2025).

3. Used member checking to validate interpretations with participants, ensuring that findings reflect their intended meanings (Noble & Smith, 2025).

Credibility (Qualitative Validity)

Credibility refers to the truthfulness and believability of findings from the participants' perspective. It is the qualitative equivalent of internal validity in quantitative research and ensures that the study accurately reflects participants' lived experiences (Chitac, 2022).

To enhance credibility, I:

1. Conducted member checking by sharing summaries of findings with participants for validation (Rahimi & Khatooni, 2024).
2. Applied methodological triangulation by integrating interviews, analytic memos, and reflexive journaling (Mpofu, 2025).
3. Engaged in peer debriefing with academic colleagues to challenge assumptions and interpretations (Noble & Smith, 2025).

Transferability

Transferability refers to the extent to which findings can be applied to other contexts or populations. Unlike generalizability in quantitative research, transferability depends on the reader's ability to determine relevance based on the richness of contextual detail provided (Stalmeijer et al., 2024).

To support transferability, I:

1. Provided thick descriptions of participant demographics, organizational settings, and contextual factors (Brown et al., 2025).

2. Use purposeful sampling to capture a range of perspectives relevant to the research questions (Stalmeijer et al., 2024).

Confirmability

Confirmability ensures that findings are shaped by participants' narratives rather than researcher bias. It emphasizes transparency and neutrality in the research process (McLeod, 2024).

To establish confirmability, I:

1. Maintained a reflexive journal to document personal assumptions and analytic decisions (Noble & Smith, 2025).
2. Verified transcripts against original audio recordings for accuracy (Ahmed, 2025).
3. Conducted peer audits to review the logic and coherence of the analysis (Mpofu, 2025).

Data Saturation

Data saturation is reached when no new themes or insights emerge from additional data collection. It indicates that the dataset is sufficiently rich and comprehensive (Rahimi & Khatooni, 2024).

To ensure saturation, I:

- Monitored emerging themes during data collection and analysis.
- Applied the information power principle, which considers the richness and relevance of data rather than a fixed sample size (Ahmed, 2025).

In conclusion, this section defined and operationalized the core trustworthiness criteria in qualitative research: dependability, credibility, transferability, confirmability, and data saturation. Strategies such as audit trails, triangulation, member checking, reflexivity, and thick description were employed to ensure methodological rigor.

Transition and Summary

In this study, I employed a qualitative, pragmatic inquiry design to investigate how dynamic capabilities influence competitiveness and performance within U.S. telecommunications firms. Section 3 detailed the research methodology, including the purposeful selection of participants, data collection through semi-structured interviews and document analysis, and a structured, iterative process for thematic analysis. To ensure trustworthiness, I incorporated strategies to enhance dependability, credibility, transferability, confirmability, and data saturation, strengthening the methodological integrity and analytical rigor of the research.

In the next section, I transition from methodological planning to empirical execution. Section 4 will present and interpret the research findings, demonstrating how the identified themes align with the conceptual framework and broader literature, and offering evidence-based insights relevant to strategic leadership, innovation, and organizational agility in dynamic environments.

Section 4: Findings and Conclusions

Presentation of Findings

The purpose of this qualitative pragmatic inquiry was to explore how dynamic capabilities influence competitiveness and performance in U.S. telecommunications firms. The primary research question for this study was: How do dynamic capabilities influence competitiveness and performance in telecommunications firms in the United States? The analysis of interview data from six senior leaders yielded four interrelated themes reflecting how dynamic capabilities are enacted in practice. Following the approval from IRB for procedural modification, I formally examined human sustainability as an emergent capability grounded in participant data.

The findings revealed that participants consistently described competitiveness as emerging from a process-oriented interaction of sensing, seizing, and transforming capabilities, supported by an emergent fourth capability: human sustainability capability. Together, these capabilities enable organizations to respond to technological disruption, sustain performance, and maintain customer and workforce stability in highly competitive environments.

Overview of Data Collection and Analysis

Data was collected through confidential, IRB-approved interviews with telecom leaders occupying strategic, operational, and advisory roles. All interviews were conducted virtually, audio recorded with participant consent, transcribed verbatim, and member-checked to enhance credibility and accuracy. To protect confidentiality, all

participants were assigned pseudonyms, and organizational identifiers were removed or generalized to preserve anonymity.

In the data analysis process, I followed a structured qualitative approach aligned with Walden DBA standards. Initial open coding was conducted to identify meaningful data units. These codes were subsequently grouped through axial coding into higher-order categories aligned with the dynamic capabilities view (DCV), including sensing, seizing, transforming, and resource orchestration. Cross-case analysis was then employed to identify recurring patterns and relationships across participants.

In addition to the established DCV dimensions, data analysis revealed an emergent theme, human sustainability capability, which reflects leadership practices focused on burnout prevention, emotional readiness, workload management, and the long-term preservation of human capacity. While this theme is presented as a finding, its theoretical positioning as an extension of the dynamic capabilities framework is addressed in its correlation to the literature and DCV's framework.

Organization of the Chapter

Chapter 4 is organized around the major themes that emerged from data analysis. Each theme is presented with supporting quotations from participants to illustrate how leaders experience and enact dynamic capabilities in practice. The chapter begins with findings related to sensing and responding to environmental change, followed by leadership-driven seizing and strategic decision-making, resource orchestration and transformation, organizational agility and learning, and concludes with the emergent theme of human sustainability as a contributor to sustained competitiveness.

Participant and Organizational Context

Participants included six leaders and senior practitioners with direct responsibility for strategic decision-making, operational execution, or organizational leadership within telecommunications and related communications sectors. To protect confidentiality, participants were assigned pseudonyms: Alex, Blair, Casey, Drew, Erol, and Fran. Organizational identifiers were removed or generalized (e.g., Tier-1 U.S. telecom operator, global services provider). Participants collectively represented experience across wireless, fiber, enterprise connectivity, public-sector networks, and technology-enabled communications services.

Participant Key

The participants were labeled as follows:

- P1 = Alex
- P2 = Blair
- P3 = Casey
- P4 = Drew
- P5 = Errol
- P6 = Fran

Table 1

Cross-Case Theme Frequency Matrix (N = 6)

Theme (Capability)	P1	P2	P3	P4	P5	P6	Total Frequency
Theme 1: Sensing Capability	3	3	3	4	3	3	19
Theme 2: Seizing Capability	3	3	3	4	3	3	19
Theme 3: Transforming Capability	3	3	3	4	3	3	19
Theme 4: Human Sustainability Capability	2	3	3	3	2	4	17

Note. Values represent the frequency of coded references to each theme

by participant across the interview dataset (N = 6). P1 = Alex; P2 = Blair; P3 = Casey; P4 = Drew; P5 = Errol; P6 = Fran. Totals reflect the sum of references across participants.

Theme 1: Sensing Capability (Identifying and Interpreting Change)

Participants described sensing capability as the organization’s continuous ability to identify, interpret, and prioritize emerging technological, market, and customer shifts. Leaders emphasized that sensing was not limited to periodic strategic reviews; rather, it was an ongoing organizational activity supported by formal intelligence systems, customer analytics, frontline feedback, and external networks. As Fran explained, sensing requires leaders to “put [their] hand on the pulse to know what is changing in the environment,” because “if you don’t change, [change] will be forced on you.”

Alex described sensing as supported by dedicated corporate strategy functions that monitor industry developments and collaborate with economists and external experts. Drew highlighted the importance of interpreting market signals through collaboration with technology partners, analyst communities, and industry standards bodies, noting that intelligence was intentionally filtered and distributed across levels. Drew explained that market intelligence was shared through “weekly reports restricted to only 200–300

people,” while broader trend information was made available through internal platforms such as SharePoint and “Insightful,” which served as a “digital library where managers and team leaders source intelligence to share with their teams.” Casey emphasized the role of customer behavior data, pricing signals, and frontline observations in detecting early demand shifts, particularly amid evolving 5G usage patterns. Errol clarified that sensing relied on “competitive analysis, industry analyst insights, market signals, and customer analytics,” while also emphasizing that frontline teams often identified shifts in customer needs early: “teams often see shifts in customer needs before they show up in reports.”

Across participants, sensing was characterized as both data-enabled and socially distributed, requiring the integration of insights across organizational levels and boundary-spanning relationships. Participants consistently described sensing as foundational, shaping how leaders framed threats and opportunities before strategic decisions were made. This process orientation was captured by Fran’s observation that leaders must understand “what changes are going on in the market so they can react as quickly as possible,” because “those who are making changes are going to be sustainable and those who are rigid are going to die.”

Correlation to the Literature

The participant accounts align with recent dynamic capabilities scholarship, which emphasizes that sensing in turbulent, digitally intensive environments is increasingly real-time, data-enabled, and socially distributed, rather than confined to a centralized strategy unit (Teece, 2022; Wilden et al., 2023). Contemporary research further suggests that sensing quality depends on the organization’s ability to integrate

signals across boundary-spanning networks—such as partners, analysts, and ecosystems—while also capturing insights from internal edge actors like frontline teams who experience shifting customer needs first (Helfat & Raubitschek, 2023; Wilden et al., 2023).

In this study, participants' emphasis on surfacing frontline insights before formal reporting supports recent views that sensing is strengthened when firms combine structured intelligence routines with decentralized knowledge flows and rapid feedback loops.

Correlation to the Conceptual Framework (Dynamic Capabilities View)

Within the dynamic capabilities View (DCV), sensing refers to the firm's ability to scan, interpret, and shape understanding of opportunities and threats in the external environment. The participant evidence supports this conceptual framing by showing that sensing was enacted through both formal intelligence mechanisms (Alex) and distributed channels such as customer analytics and frontline feedback (Casey, Errol), as well as boundary-spanning partnerships (Drew). In this study, sensing capability served as the upstream foundation, enabling subsequent strategic commitment and resource reconfiguration, reinforcing DCV's proposition that competitive performance begins with the organization's capacity to accurately and continuously interpret environmental change (Teece, 2022).

Theme 2: Seizing Capability (Strategic Commitment and Decision-Making)

Participants described seizing capability as the organization's ability to commit resources and make strategic decisions based on sensed opportunities and threats. Leaders

consistently emphasized that seizing was not a purely analytical routine; rather, it involved executive judgment, prioritization, and coordinated commitment under conditions of uncertainty. Drew explained that leadership decision-making often required “making judgment calls about market execution with imperfect data,” particularly when technology and customer expectations shifted rapidly (Drew).

Several participants emphasized that seizing depended on strategic prioritization criteria that guided resource allocation toward high-impact initiatives. Errol described prioritization as anchored in “customer demand, revenue impact, scalability, and alignment with long-term strategy,” noting that “anything that improves customer experience or supports growth tends to move to the top” (Errol). Fran described a similar logic, explaining that leaders prioritize initiatives based on whether they “add value to the company or...take away value,” and whether they improve the customer experience—in Fran’s case, whether the initiative makes “consumers...happier” and strengthens outcomes for “our business partners” (Fran).

Participants also stressed that seizing often required cross-functional alignment and senior leadership sponsorship, particularly when initiatives involved large investments or enterprise-level risk. Drew described how major strategic commitments required agreement across multiple stakeholders, noting that “even single transactions can involve tens of millions or hundreds of millions of dollars,” requiring “agreement from multiple stakeholders” (Drew). Drew further illustrated seizing capability through the launch of the “Firms’ guarantee,” describing it as “a huge industry investment” and a

strategic commitment that required alignment among the CEO, CMO, COO, and other C-suite leaders (Drew).

Across cases, seizing capability was characterized by timely commitment, coordinated governance, and leadership willingness to act despite imperfect information. Participants portrayed effective seizing as the mechanism through which sensed opportunities were translated into actionable strategic direction, ensuring the organization moved beyond awareness into decisive resource mobilization.

Correlation to Literature

The findings are consistent with research showing that dynamic capabilities are not purely analytic routines; they depend on managerial cognition, judgment, and coordinated commitment to mobilizing resources toward selected opportunities (Helfat & Raubitschek, 2023; Hodgkinson & Healey, 2022;). Recent scholarship further suggests that seizing capability is strengthened when leadership teams establish shared interpretive frames that support decision speed and quality, particularly in complex environments requiring coordination across multiple organizational units (Teece, 2022; Wilden et al., 2023).

In addition, recent evidence emphasizes that cross-functional alignment is often essential to execute high-stakes strategic commitments, particularly when initiatives require large investments and enterprise-wide adoption. This aligns with Drew's description of major initiatives requiring C-suite agreement and governance structures to support coordinated execution.

Correlation to the Conceptual Framework (Dynamic Capabilities View)

Within DCV, seizing refers to the organization's ability to select strategic options and commit resources to capture value from sensed opportunities. The participant data support this conceptual framing by showing that seizing involved prioritization criteria (Errol), leadership judgment under uncertainty (Drew, Blair), and coordinated commitment across enterprise stakeholders for major initiatives (Drew). In this study, seizing capability served as the bridge between sensing and execution, translating interpreted signals into strategic action, consistent with DCV's emphasis that competitiveness depends not only on recognizing opportunities but also on mobilizing organizational commitment to act on them (Teece, 2022).

Theme 3: Transforming Capability (Resource Reconfiguration and Execution)

Participants described transforming capability as the organization's ability to reconfigure resources, systems, and operating structures to implement strategic decisions and sustain competitive performance. Leaders emphasized that transformation was not a single event but an iterative process involving redesigning processes, developing capabilities, and aligning operations to support execution. Errol described transformation as updating "training, tools, and messaging" when customer demand shifted toward newer offerings, resulting in "faster adoption and better customer conversations" (Errol).

Participants highlighted that transformation often required coordinated changes across frontline systems and internal support functions to reduce friction and enable speed. Drew emphasized that agility depended on partnerships with technology companies that brought new ideas and invested time on-site, noting that "off-the-shelf

solutions rarely work” at enterprise scale and customization was often required to execute transformation effectively (Drew). Drew also described large-scale transformation through service integration, explaining that a firm moved “from zero convergence to over 40% convergence,” meaning “over 40% of customers now have two products” over a seven-year period (Drew). This example illustrated how transformation could unfold through sustained reconfiguration over time rather than through episodic “big bang” change.

Fran described transformation through internal restructuring and resource redesign, explaining that as the organization pursued a larger strategic vision, “the model has to change,” and leadership sometimes had to “reinvent the organization itself—the operational structure, the marketing, the partnerships, the programming” to align execution with long-term goals (Fran). Fran also noted that transformation may require shifts in workforce configuration, stating that “the people who got you to a smaller vision...cannot be the people who will lead you to a [much bigger] vision,” emphasizing the strategic role of talent alignment during transformation cycles (Fran).

Across cases, transforming capability was consistently linked to execution discipline, cross-functional collaboration, and continuous reconfiguration of operating practices. Participants portrayed transforming as the capability through which strategy became operational reality—translating commitments into sustained competitive outcomes.

Correlation to Literature

The participant accounts align with contemporary dynamic capabilities scholarship, describing transformation as continuous renewal rather than a discrete change event. Recent literature emphasizes that in digitally intensive and turbulent environments, transforming capability involves repeatedly realigning operating models, routines, and resource bundles to sustain competitiveness as technologies and customer expectations evolve (Karimi & Walter, 2021; Teece, 2022). Consistent with this view, Casey's and Errol's examples reflect iterative reconfiguration cycles in frontline execution, while Drew's example illustrates longer-term integration and renewal through convergence.

Recent research also suggests that transformation in modern firms is increasingly shaped by digital dynamics, in which organizations must continually update capabilities, processes, and customer-facing systems to remain competitive amid persistent disruption (Helfat & Raubitschek, 2023; Teece, 2022). These findings support the interpretation that telecom competitiveness is sustained through repeated reconfiguration cycles rather than episodic "big bang" transformation initiatives.

Correlation to the Conceptual Framework (Dynamic Capabilities View)

Within Teece's (2022) Dynamic Capabilities View (DCV), transforming capability refers to the organization's capacity to renew and reconfigure resources to maintain alignment with environmental demands and strategic direction. The participant data support this conceptual framing by demonstrating that transformation occurred through both rapid operational execution (Casey, Errol) and longer-cycle

structural integration (Drew). In this study, transforming capability functioned as the mechanism through which sensed opportunities and strategic commitments were operationalized into sustained competitive performance, reinforcing the DCV proposition that resource reconfiguration is central to long-term competitiveness in dynamic environments (Teece, 2022).

Theme 4: Human Sustainability Capability (Sustaining Performance Through Human Capacity)

An emergent theme across participants was human sustainability capability, defined as the organization's ability to preserve employee capacity, resilience, and engagement under prolonged competitive pressure. Leaders consistently described human sustainability as a foundational enabler of sensing, seizing, and transforming activities, particularly in high-intensity environments where sustained change created risk of burnout and degraded decision quality. Errol explained that leaders protected team capacity by “managing workloads, setting clear priorities, and adjusting expectations during periods of change,” emphasizing “realistic goal setting” and “open communication” to monitor and address burnout (Errol).

Participants described human sustainability as supported by continuous learning, leadership support, and workload design practices that sustained performance over time. Drew highlighted the role of automation in reducing operational strain, noting that automation was implemented “to reduce human intervention and prevent employee burnout” (Drew). Drew also emphasized the importance of monitoring performance and pressures frequently, describing evaluation rhythms that occurred “daily, weekly,

monthly, and quarterly,” with partner reviews every six months contributing to planning and sustainability of execution capacity (Drew).

Fran offered a candid account of the human sustainability challenge from a leadership perspective, describing how high execution intensity and misaligned values can strain teams. Fran noted that leaders often assume others will match their drive, but “most people are not as you are,” and sustaining performance requires selecting and supporting people who can remain committed under pressure (Fran). Fran further reflected that leadership can be “lonely at the top,” emphasizing the need for leaders to surround themselves with peers who have successfully navigated high-pressure demands to preserve endurance and decision quality (Fran).

Across cases, participants did not describe human sustainability as a standalone HR initiative; instead, they positioned it as a strategic capability that enabled the endurance of dynamic capabilities over time. Leaders framed human sustainability as upstream and enabling—protecting cognitive bandwidth, emotional readiness, and execution energy so that sensing remains accurate, seizing remains decisive, and transforming remains sustainable under continuous disruption.

Correlation to Literature

The participant evidence aligns with emerging scholarship emphasizing that sustained competitiveness increasingly depends on organizations’ ability to maintain human capacity and resilience under conditions of chronic disruption and high velocity (Pfeffer, 2023; Teece, 2022). Recent work suggests that employee well-being, burnout mitigation, and sustainable workload design are not only ethical

considerations but also strategic factors influencing execution reliability and long-term performance (Björkman et al., 2022; Pfeffer, 2023).

In dynamic environments, scholars have increasingly highlighted the “human foundations” of strategic renewal, including leadership practices that preserve cognitive bandwidth, emotional readiness, and learning capacity—conditions necessary for organizations to repeatedly adapt over time (Helfat & Raubitschek, 2023; Hodgkinson & Healey, 2022). These perspectives support the study’s interpretation that human sustainability functions upstream of performance outcomes by sustaining the human systems required for dynamic capabilities to operate continuously.

Correlation to the Conceptual Framework (Dynamic Capabilities View)

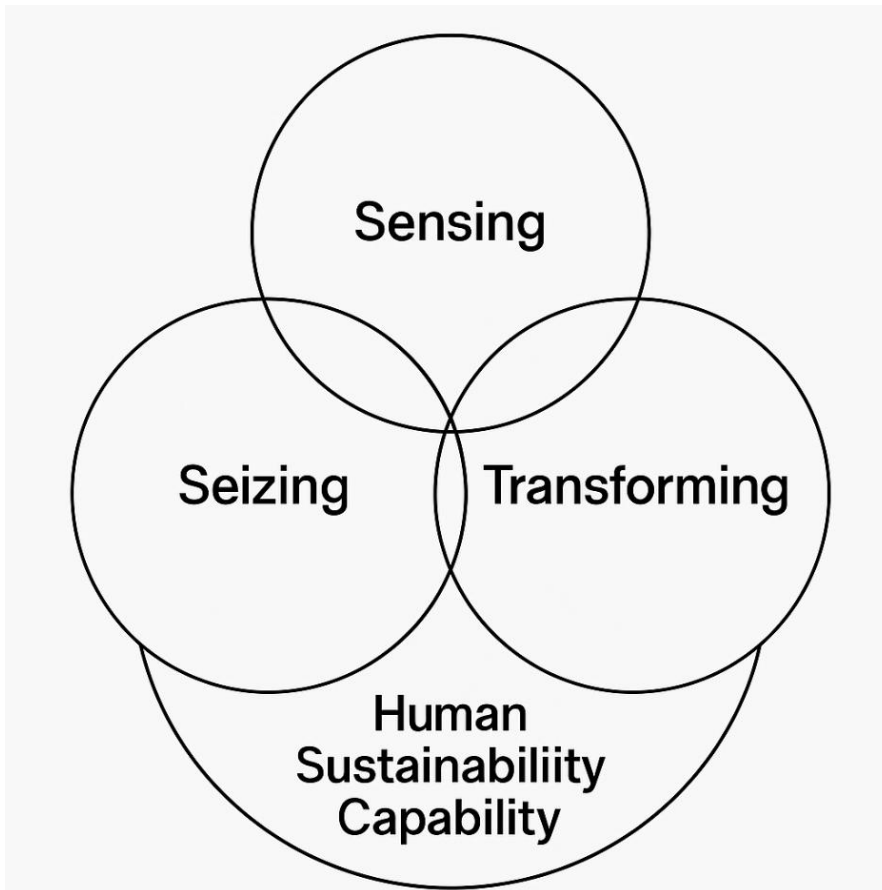
The traditional DCV framework emphasizes sensing, seizing, and transforming as core processes of strategic adaptation. The findings from participant data suggest that human sustainability capability operates as an enabling layer that supports the repeated functioning of these processes over time. In this study, leaders described human sustainability practices as preserving workforce attention, decision quality, and execution endurance—conditions necessary for sensing accuracy, seizing opportunities, and achieving transformational reliability. Therefore, while human sustainability was not positioned as a replacement for DCV, the findings provide empirical support for extending DCV by recognizing that sustained human capacity is a strategic organizational capability required to maintain the effectiveness of dynamic capabilities in volatile, technology-intensive environments (Teece, 2022).

Integration of Dynamic Capabilities and Human Sustainability

To illustrate how these themes interact as a dynamic process, Figure 1 presents the extended dynamic capabilities framework emerging from the findings. As shown in Figure 1, human sustainability capability underpins and enables the traditional dynamic capabilities of sensing, seizing, and transforming, supporting their endurance and effectiveness in volatile environments.

Figure 1

Dynamic Capabilities Framework with Human Sustainability



Cross-Case Synthesis

Across all participants, dynamic capabilities were described as an interconnected process rather than isolated functions. Sensing enabled informed awareness of change, seizing translated insight into strategic commitment, transforming operationalized strategy through resource reconfiguration, and human sustainability sustained these capabilities over time. Despite differences in organizational scale and structure, participants consistently linked these capabilities to competitiveness, customer retention, and performance outcomes.

Practical Recommendations for Business Leaders

Institutionalizing Real-Time Sensing Beyond Strategy Teams

Leaders should formalize sensing systems that integrate customer analytics, competitive intelligence, analyst reports, and frontline feedback loops. Participants emphasized that frontline teams often detect demand shifts before formal reporting cycles, suggesting that sensing improves when organizations treat customer-facing roles as strategic sensors rather than downstream executors.

Strengthening Seizing Through Disciplined Prioritization And Governance

Participants described seizing as requiring commitment under uncertainty, guided by criteria such as customer demand, revenue impact, scalability, and long-term strategic fit. Leaders should operate these criteria through governance routines that align cross-functional stakeholders, accelerate commitment, and maintain decision quality.

Treat Transformation as Repeated Reconfiguration, Not Episodic Change

Leaders should design transformation capability around iterative updates to tools, training, messaging, and operating interfaces. Participants described transformation as ongoing execution cycles (e.g., supporting new offerings, enabling convergence, simplifying processes), suggesting that telecom competitiveness is sustained through repeated reconfiguration rather than one-time programs.

Build Human Sustainability Capability as an Execution Enabler

Leaders should proactively protect team capacity by managing workload intensity, clarifying priorities, setting realistic expectations during change, and investing in continuous learning. Participants also described the value of automation, empowerment, and communication practices that reduce burnout risk and preserve resilience. Human sustainability should be embedded into execution design (how work is structured), not treated as an add-on.

Link Capability Performance To Customers and Operational Outcomes

Leaders should track metrics that reflect both market competitiveness and execution health (e.g., churn, adoption rates, customer satisfaction, efficiency, and operational stability). Participants emphasized frequent performance monitoring through dashboards and structured reviews, reinforcing that dynamic capabilities require measurement discipline to remain effective.

Implications for Social Change

The findings have implications for social change by highlighting leadership practices that can reduce burnout, preserve well-being, and sustain workforce resilience

in a high-pressure industry. Telecommunications organizations shape how individuals and communities access connectivity, employment, and digital services. When leaders sustain human capacity through workload design, training investment, and supportive communication practices, organizations can create healthier work environments while maintaining performance under disruption.

At the organizational level, human sustainability practices can reduce turnover, strengthen engagement, and support long-term skill development. At the community level, resilient telecom operations contribute to more stable service delivery, improved customer experience, and stronger digital access, particularly important as connectivity increasingly underpins education, health services, and economic participation. By positioning human sustainability as a capability that supports execution endurance, this study suggests that competitiveness and employee well-being are not competing priorities, but mutually reinforcing outcomes when managed strategically.

Recommendations for Further Research

Future research could extend this study in several ways. First, researchers may examine human sustainability capability across other high-intensity industries (e.g., healthcare, logistics, financial services) to determine whether the capability functions similarly under sustained disruption. Second, future studies could explore how leadership styles and governance structures shape the development of human sustainability capability, including how organizations institutionalize workload design, emotional readiness, and learning systems. Third, longitudinal research could assess whether human sustainability capability predicts sustained performance outcomes over time, particularly

during multi-year transformation cycles. Finally, quantitative or mixed-methods research could test the extended framework to evaluate the strength of relationships among sensing, seizing, transforming, human sustainability, and performance outcomes.

Conclusion

The purpose of this qualitative pragmatic inquiry was to explore how dynamic capabilities influence competitiveness and performance in U.S. telecommunications firms. Analysis of interview data from six leaders revealed four interrelated themes presented as a process-oriented sequence: sensing capability, seizing capability, transforming capability, and an emergent human sustainability capability. Participants consistently described competitiveness as resulting from continuous sensing of market shifts, timely strategic commitment, repeated resource reconfiguration, and deliberate protection of human capacity to sustain execution under prolonged disruption.

The findings confirm the relevance of the dynamic capabilities view while extending it by demonstrating that human sustainability functions as a foundational capability that enables the continuous operation of sensing, seizing, and transforming in high-intensity environments. This study provides practical guidance for telecom leaders seeking to sustain competitiveness and performance while navigating rapid technological change and increasing customer expectations.

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Appendix A: Interview Questions

Emerging Trends and Sensing Capabilities:

Primary Question: "Can you describe how your organization identifies and responds to emerging technological and market trends in the telecommunications industry?"

Follow-up 1: "What specific tools or processes does your firm use to monitor these emerging trends?"

Follow-up 2: "How do you ensure that insights gained from these trends are effectively communicated and integrated across your organization?"

Defining and Developing Dynamic Capabilities:

Primary Question: "How do you define dynamic capabilities within your firm, and what key strategies or processes are in place to nurture these capabilities?"

Follow-up 1: "Can you provide an example of a recent initiative that perfectly illustrates your approach to developing dynamic capabilities?"

Follow-up 2: "What role do cross-functional teams or collaborations play in enhancing these capabilities within your organization?"

Leadership and Strategic Decision-Making:

Primary Question: "In what ways does leadership influence strategic decision-making processes, particularly in times of rapid technological or market change?"

Follow-up 1: "How do leaders balance short-term operational demands with long-term strategic planning during periods of change?"

Follow-up 2: "Could you share a specific instance where leadership decisively impacted the strategic direction of your organization?"

Resource Orchestration and Allocation:

Primary Question: "Can you provide examples where effective resource orchestration or allocation has improved your firm's competitive positioning?"

Follow-up 1: "What criteria do you use to determine which initiatives receive priority in resource allocation?"

Follow-up 2: "How do you evaluate the impact of these resource allocation strategies on overall competitive advantage?"

Organizational Agility and Capability Transformation:

Primary Question: "How does your organization ensure agility and flexibility in transforming capabilities to adapt to industry disruptions?"

Follow-up 1: "What internal mechanisms or processes have proven most effective in promoting agility within your organization?"

Follow-up 2: "Could you describe a situation when rapid capability transformation was essential, and what the outcomes were?"

Innovation and Continuous Improvement:

Primary Question: "What methods or practices does your firm employ to foster innovation and continuous improvement among your teams?"

Follow-up 1: "How do you capture employee feedback, and what role does it play in driving innovation?"

Follow-up 2: "Can you recall a specific instance where these practices led to significant operational or strategic improvements?"

Challenges and Success Stories:

Primary Question: "Could you share a specific challenge or success story that highlights the integration of dynamic capabilities and strategic leadership within your organization?"

Follow-up 1: "What were the key factors that contributed to the success or presented hurdles during this experience?"

Follow-up 2: "Reflecting on that situation, what lessons were learned that have since influenced your strategic approach?"

Performance Monitoring and Competitive Outcomes:

Primary Question: "How does your organization monitor performance related to dynamic capabilities, and what measures are used to evaluate competitiveness and strategic positioning?"

Follow-up 1: "How frequently are performance evaluations conducted, and who is primarily responsible for this process?"

Follow-up 2: "What challenges have you faced in aligning performance measures with the continuous evolution of dynamic capabilities?"

(These follow-up questions are designed to encourage participants to provide deeper insights and nuanced examples that will enrich the qualitative data and strengthen the overall analysis of dynamic capabilities and strategic leadership within the telecommunications industry).