



Strategic Leadership, Digital Transformation, and Employee Engagement toward Service Innovation; A conceptual framework

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<i>Article history:</i> <i>Received: Nov 2025</i> <i>Revised: Nov 2025</i> <i>Accepted: Dec 2025</i> <i>Available online: Dec 2025</i>	Abstract This conceptual paper explores the integrated influence of strategic leadership, digital transformation, and employee engagement on service innovation within the telecommunications sector, emphasizing their collective role in achieving sustainable organizational growth. Guided by transformational leadership and dynamic capabilities theories, the framework proposes that strategic leadership shapes vision and culture, digital transformation provides the technological foundation for agility and efficiency, and employee engagement serves as the mediating force that translates leadership intent and digital initiatives into innovative service outcomes. Together, these elements form a dynamic system in which leadership inspires, technology enables, and engagement drives continuous innovation and competitiveness. The paper highlights that successful service innovation requires not only investment in digital tools but also the empowerment and motivation of employees to co-create value in a rapidly evolving environment. The proposed model contributes theoretically by integrating leadership, technology, and human engagement perspectives, and practically by offering actionable insights for telecom executives, policymakers, and HR managers to align strategic leadership and digital transformation with engagement-driven innovation in alignment with Vision 2030’s objectives for digital excellence and sustainable development.
Keywords: Strategic Leadership, Digital Transformation, Employee Engagement, Service Innovation.	

1.Introduction

In the rapidly evolving digital economy, organizations across sectors are compelled to transform their operational and strategic structures to sustain competitiveness and foster innovation. Digital transformation (DT) has become an indispensable driver of service innovation (SI), allowing firms to leverage data, automation, and connectivity to deliver superior value propositions. The increasing dependence on emerging technologies such as artificial intelligence, the Internet of Things (IoT), and big data has created new opportunities and challenges for organizations striving to innovate their service offerings (Bhatti et al., 2021; Bendary & Rajadurai, 2024). However, the realization of digital transformation outcomes depends not only on the adoption of technologies but also on the strategic leadership (SL) that guides these transformations and the engagement of employees who operationalize them (Weber et al., 2022; Sandhu & Al Naqbi, 2023). Strategic leadership plays a crucial role in establishing a vision, aligning resources, and fostering an organizational culture that embraces innovation and change. In digitally dynamic industries such as telecommunications, strategic leaders are responsible for creating synergy between technology adoption and human capital

development to drive innovation outcomes (Cortes & Herrmann, 2021; Pasaribu et al., 2021). Leadership vision and agility are fundamental for organizations aiming to integrate technology with strategic goals, ensuring that digital transformation initiatives contribute meaningfully to service innovation (Alakaş, 2024). Furthermore, effective leaders cultivate environments that empower employees to engage actively in innovative practices, aligning individual creativity with collective organizational objectives (Niță & Guțu, 2023).

Employee engagement (EE) represents a vital human factor that bridges leadership intent and innovation performance. Engaged employees are more motivated, committed, and capable of translating technological potential into innovative solutions and services (Tian & Zhang, 2020; Aldabbas et al., 2023). Recent research highlights that digital engagement and psychological empowerment in the workplace significantly enhance creativity, collaboration, and service innovation outcomes (Gül, 2025; Marampa et al., 2025). The mediating role of engagement between leadership and innovation has gained scholarly attention, suggesting that when employees are empowered and inspired, they act as catalysts for innovation, contributing directly to improved service delivery (Lv et al., 2022; Almazrouei & Hilmi, 2024). Thus, employee engagement is positioned as a central mechanism linking strategic leadership and digital transformation to service innovation. Service innovation, as an organizational outcome, reflects a company's ability to develop new or improved services that meet evolving customer needs and generate competitive advantage. Within the context of Saudi Arabia's Vision 2030, service innovation is viewed as a national priority, particularly within digital-driven industries such as telecommunications (Bendary & Rajadurai, 2024; Alayed, 2023). Saudi firms are expected to harness digital transformation strategies to enhance service efficiency, customer experience, and sustainability, reinforcing the significance of leadership and employee engagement in realizing these goals (Hernik et al., 2025; Shehadeh et al., 2023). In this regard, organizations such as Zain Saudi Arabia exemplify the integration of leadership, technology, and human resource engagement to achieve digital service excellence.

This conceptual paper proposes an integrative framework linking strategic leadership and digital transformation to service innovation, with employee engagement as a mediating variable. Drawing on theories of transformational and digital leadership, dynamic capabilities, and innovation management, this study contributes to the growing body of literature on digital service innovation pathways (Soto Setzke et al., 2023; Cahyadi & Magda, 2021). The framework aims to provide theoretical and practical insights into how leaders can strategically align digital transformation initiatives with human engagement to stimulate continuous innovation. In doing so, the study supports the realization of Vision 2030 objectives by emphasizing the human-technology interplay that drives organizational innovation and sustainable competitive advantage in the Saudi telecommunications sector.

2. Theoretical Foundations

The theoretical foundations of this study are grounded in leadership, innovation, and digital transformation literature, drawing from transformational leadership theory, dynamic capabilities theory, and innovation management perspectives. These theories collectively explain how strategic leadership (SL) and digital transformation (DT) interact to enhance employee engagement (EE) and drive service innovation (SI). Transformational and strategic leadership theories emphasize leaders' roles in inspiring change, cultivating innovation, and developing human capital to achieve organizational goals (Cortes &

Herrmann, 2021; Sandhu & Al Naqbi, 2023). The dynamic capabilities perspective complements this by focusing on how organizations adapt, integrate, and reconfigure internal and external competencies in response to technological changes (Fan et al., 2022; Soto Setzke et al., 2023). Within this framework, digital transformation functions as both an enabler and a catalyst for service innovation, while employee engagement serves as the critical human mechanism that translates leadership strategies into innovative outcomes.

2.1 Strategic Leadership and Digital Transformation

Strategic leadership refers to the capacity of leaders to set a long-term vision, mobilize resources, and guide organizations toward innovation and transformation. In a digital context, strategic leadership ensures that digital initiatives are aligned with organizational strategy and that technological investments contribute to sustained competitive advantage (Pasaribu et al., 2021; Cortes & Herrmann, 2021). Leaders in digitally transforming organizations play a vital role in articulating a clear vision for technological adoption, promoting innovation, and empowering employees to embrace change (Weber et al., 2022). Research underscores that leadership effectiveness in digital transformation depends on fostering a culture of adaptability and technological learning (Cahyadi & Magda, 2021). Strategic leaders must integrate digital strategy with organizational culture, enabling the workforce to utilize emerging technologies such as AI, cloud computing, and analytics effectively (Bhatti et al., 2021). Studies also reveal that digital transformational leadership enhances organizational agility and facilitates rapid decision-making in turbulent environments (Alakaş, 2024; Montasser et al., 2023). Furthermore, in contexts like Saudi Arabia's Vision 2030, strategic leadership is instrumental in steering organizations toward modernization, ensuring that digital transformation initiatives align with national innovation goals (Bendary & Rajadurai, 2024; Alayed, 2023). Leaders who demonstrate digital literacy and visionary thinking empower employees to adopt technology with confidence and creativity. This alignment of digital leadership with strategic direction not only improves operational efficiency but also strengthens innovation capabilities (Hammami, 2024). Hence, strategic leadership acts as the driving force behind digital transformation, linking technological adoption to organizational innovation and human engagement.

2.2 Employee Engagement in the Digital Transformation Era

Employee engagement has emerged as a pivotal factor influencing how organizations navigate and capitalize on digital transformation. It encompasses the emotional, cognitive, and behavioral commitment employees demonstrate toward their work and organizational objectives (Niță & Guțu, 2023). Engaged employees are more willing to adapt to digital systems, leverage technological tools creatively, and participate in innovation processes (Gül, 2025; Hizam et al., 2023). In the digital era, engagement is shaped not only by leadership practices but also by the organization's digital environment, which determines how employees interact with technologies and perceive their relevance to performance outcomes (Hernik et al., 2025). Studies indicate that digital workplaces supported by cloud systems, data analytics, and communication platforms enhance collaboration and engagement by simplifying workflows and enabling real-time innovation (Ting et al., 2021). Furthermore, empowering leadership and organizational support have been shown to strengthen employee engagement by fostering autonomy, psychological safety, and continuous learning (Aldabbas et al., 2023; Tian & Zhang, 2020). Employee engagement is particularly relevant in the context of digital transformation because technological change

can create uncertainty and stress if not managed effectively. Strategic leaders play a key role in mitigating such challenges by providing direction, motivation, and opportunities for employees to upskill in digital tools (Hamraia, 2024). Research within the telecommunications and ICT sectors demonstrates that digital transformation initiatives are most effective when accompanied by human-centered leadership that prioritizes engagement and participation (Sandhu & Al Naqbi, 2023; Niță & Guțu, 2023). Consequently, engaged employees act as mediators who transform leadership vision and digital investments into tangible innovation outcomes.

2.3 Service Innovation in Dynamic Organizations

Service innovation (SI) refers to the process of designing and implementing new or improved services that enhance customer satisfaction, organizational performance, and competitive differentiation (Awuku et al., 2023; Pai et al., 2022). In dynamic and technology-driven environments, service innovation is no longer limited to product enhancement but encompasses process improvements, digital delivery models, and customer co-creation. It serves as a strategic outcome of leadership, engagement, and technological synergy (Soto Setzke et al., 2023; Bhatti et al., 2021). Digital transformation acts as the backbone of modern service innovation by integrating advanced technologies into organizational processes to deliver superior service experiences (Shehadeh et al., 2023). Leadership, in turn, facilitates innovation by promoting risk-taking, learning, and collaboration (Ye et al., 2022). Research in telecommunications and public sectors reveals that firms with proactive digital strategies and innovation-oriented leadership demonstrate higher service performance and customer loyalty (Sandhu & Al Naqbi, 2023; Bendary & Rajadurai, 2024). Service innovation requires cross-functional collaboration, technological competence, and employee creativity. Engaged employees play an integral role by identifying customer pain points and co-developing innovative solutions (Lv et al., 2022; Almazrouei & Hilmi, 2024). Within the Vision 2030 framework, Saudi organizations are urged to cultivate innovation ecosystems that integrate technology, leadership, and workforce engagement to deliver services aligned with national digital transformation objectives (Alayed, 2023; Blaique et al., 2024). Hence, service innovation is not merely a technological achievement but a leadership-driven and employee-enabled outcome.

2.4 Mediating Role of Employee Engagement

Employee engagement serves as a mediating mechanism that connects strategic leadership and digital transformation to service innovation. Leadership provides the strategic direction and motivation necessary for innovation, while digital transformation offers the technological tools and platforms. Engagement acts as the bridge that translates these inputs into innovative service outcomes (Niță & Guțu, 2023; Aldabbas et al., 2023). Engaged employees demonstrate higher creativity, initiative, and knowledge-sharing behaviors, which are essential for effective innovation (Marampa et al., 2025; Wan et al., 2022). Research supports that leadership styles emphasizing empowerment and trust positively affect engagement, which in turn enhances innovation performance (Tian & Zhang, 2020; Lv et al., 2022). Similarly, digital transformation initiatives that involve employees in decision-making processes foster a sense of ownership, strengthening engagement and innovation output (Hernik et al., 2025; Tuyen et al., 2023). Engagement mediates not only the cognitive and behavioral alignment between leaders and employees but also the emotional connection necessary for creativity and innovation (Almazrouei & Hilmi, 2024). Within the telecommunications and ICT industries, engaged employees have been shown to amplify the positive effects of digital transformation on service quality, operational efficiency, and

innovation capability (Pai et al., 2022; Sandhu & Al Naqbi, 2023). This mediating role is particularly critical in the Saudi context, where organizations are undergoing rapid transformation under Vision 2030. Strategic leaders must therefore prioritize employee engagement as a strategic asset that ensures digital transformation translates into sustained service innovation (Bendary & Rajadurai, 2024; Alayed, 2023).

3. Hypotheses Development

The hypotheses of this conceptual framework are developed based on theoretical and empirical evidence linking strategic leadership, digital transformation, employee engagement, and service innovation. Drawing on transformational leadership and dynamic capability perspectives, the framework posits that leadership vision and digital capabilities enhance innovation outcomes, while employee engagement functions as a mediating mechanism through which strategic and technological initiatives translate into innovation performance.

3.1 Strategic Leadership and Service Innovation

Strategic leadership (SL) is a decisive factor in guiding organizations toward innovation and sustainable performance. Leaders who articulate a clear vision, foster creativity, and align resources with innovation objectives drive service excellence and adaptability (Cortes & Herrmann, 2021). In rapidly transforming sectors such as telecommunications, strategic leadership shapes a culture that encourages experimentation and risk-taking, essential for developing new services and improving customer experience (Sandhu & Al Naqbi, 2023). Leaders who integrate innovation-oriented strategies into digital transformation initiatives ensure that technological investments contribute meaningfully to service innovation (Soto Setzke et al., 2023). Additionally, leadership agility and decision-making competency enhance the organization's ability to respond to emerging digital trends, enabling continuous service improvements (Weber et al., 2022). Studies confirm that visionary leadership enhances firms' ability to innovate and deliver value-added services in both private and public sectors (Bendary & Rajadurai, 2024).

H1: Strategic leadership positively influences service innovation.

3.2 Digital Transformation and Service Innovation

Digital transformation (DT) facilitates innovation by integrating digital technologies into core business functions, enabling new ways of delivering services and interacting with customers (Bhatti et al., 2021). Organizations that effectively implement digital strategies achieve enhanced operational agility, customer-centric solutions, and innovation capabilities (Shehadeh et al., 2023). DT empowers firms to analyze data, automate processes, and improve communication, thereby fostering creativity and faster service development (Fan et al., 2022). In established organizations, digital transformation acts as a key driver of digital service innovation pathways (Soto Setzke et al., 2023). Leadership-driven transformation initiatives create an ecosystem where technology and innovation reinforce each other, resulting in higher service quality and customer loyalty (Awuku et al., 2023). Furthermore, DT aligns organizational structures and workflows with innovation goals, helping firms adapt to dynamic market changes (Bendary & Rajadurai, 2024).

H2: Digital transformation positively influences service innovation.

3.3 Strategic Leadership and Employee Engagement

Employee engagement (EE) is highly dependent on leadership practices that emphasize empowerment, recognition, and participation. Strategic leaders cultivate engagement by fostering trust, shared vision, and opportunities for professional growth (Niță & Guțu, 2023). Transformational and empowering leadership styles inspire employees to contribute creatively and align their efforts with organizational innovation goals (Tian & Zhang, 2020; Almazrouei & Hilmi, 2024). Empirical studies show that when leaders involve employees in decision-making and encourage knowledge sharing, engagement and innovation behavior increase significantly (Lv et al., 2022; Aldabbas et al., 2023). Strategic leadership enhances psychological safety, motivation, and collaboration factors that are critical to sustaining engagement during digital change (Cahyadi & Magda, 2021). Thus, effective leadership is not only a strategic driver of transformation but also a vital source of employee motivation and commitment.

H3: Strategic leadership positively influences employee engagement.

3.4 Digital Transformation and Employee Engagement

Digital transformation also reshapes the workplace environment, influencing how employees engage with their roles and organizations. Through the integration of digital tools, automation, and analytics, organizations can reduce routine tasks, foster collaboration, and create more engaging work experiences (Hernik et al., 2025; Hizam et al., 2023). Studies reveal that digital maturity positively impacts employee satisfaction and engagement by promoting autonomy and flexible work structures (Niță & Guțu, 2023). Furthermore, successful digital transformation depends on how employees internalize technological change and adapt their behaviors to new digital practices (Hamraaia, 2024). When supported by leadership, digital technologies enhance communication, transparency, and participation, which are key to sustaining engagement and innovation (Gül, 2025; Bhatti et al., 2021).

H4: Digital transformation positively influences employee engagement.

3.5 Employee Engagement and Service Innovation

Employee engagement directly contributes to service innovation by fostering creativity, problem-solving, and a proactive approach to service improvement. Engaged employees are more likely to identify customer needs and co-create innovative solutions that enhance service quality (Pai et al., 2022; Wan et al., 2022). Work engagement enables employees to utilize their skills and enthusiasm toward achieving innovative outcomes, particularly in service industries where customer interaction is critical (Lv et al., 2022). Research indicates that engagement not only improves job performance but also mediates the relationship between leadership and innovation behavior (Aldabbas et al., 2023; Marampa et al., 2025). Organizations that prioritize engagement create a culture of ownership and innovation readiness, where employees willingly contribute to new ideas and service enhancements (Almazrouei & Hilmi, 2024).

H5: Employee engagement positively influences service innovation.

3.6 Employee Engagement mediates the relationship between Strategic Leadership and Service Innovation

The link between strategic leadership and service innovation is strengthened when employee engagement acts as a mediating mechanism. Leadership behaviors such as inspiration, empowerment, and vision communication enhance engagement, which in turn fuels innovation (Tian & Zhang, 2020; Niță & Guțu, 2023). Engaged employees are more likely to translate leadership vision into innovative actions and outcomes (Aldabbas et al., 2023; Wan et al., 2022). Leaders who create an inclusive, trust-based environment stimulate employees' psychological empowerment, fostering intrinsic motivation to innovate (Marampa et al., 2025). This mediation reflects how leadership indirectly impacts innovation performance through the engagement-driven behaviors of employees (Lv et al., 2022).

H6: Employee engagement mediates the relationship between strategic leadership and service innovation.

3.7 Employee Engagement mediates the relationship between Digital Transformation and Service Innovation

Employee engagement also mediates the relationship between digital transformation and service innovation by connecting technological advancements with human creativity. Digital transformation enables new tools and systems, but engagement determines how effectively employees use these tools to generate innovative services (Hernik et al., 2025; Gül, 2025). Studies show that engaged employees adapt more readily to digital change, leveraging technologies to develop new service models and processes (Tuyen et al., 2023). When employees are motivated and technologically empowered, they become agents of innovation who co-create value within digitally enabled ecosystems (Soto Setzke et al., 2023). This suggests that the success of digital transformation initiatives in achieving service innovation largely depends on the extent of employee engagement.

H7: Employee engagement mediates the relationship between digital transformation and service innovation.

4. Gap in The Literature

Despite the growing body of research on leadership, innovation, and digital transformation, several gaps remain in understanding the integrated mechanisms through which strategic leadership (SL) and digital transformation (DT) jointly influence service innovation (SI), particularly through the mediating role of employee engagement (EE). Much of the existing literature addresses these variables independently, focusing on either leadership dynamics or technological adoption, while overlooking the critical human and strategic linkages necessary for innovation success (Cortes & Herrmann, 2021; Soto Setzke et al., 2023). The telecommunications sector characterized by rapid technological advancement, intense competition, and evolving customer expectations offers an ideal yet underexplored context to investigate how strategic leadership and digital transformation interact to produce innovation outcomes (Sandhu & Al Naqbi, 2023; Bhatti et al., 2021). Furthermore, while numerous studies acknowledge the importance of employee engagement in performance and innovation, its mediating role in the leadership–innovation

and technology–innovation relationships remains insufficiently theorized and empirically validated (Niță & Guțu, 2023; Aldabbas et al., 2023).

4.1 Strategic Leadership and Digital Transformation

Research has demonstrated that leadership plays a pivotal role in guiding digital transformation by providing vision, direction, and resource alignment (Weber et al., 2022; Cahyadi & Magda, 2021). However, empirical studies in the telecommunications sector, particularly within developing and Gulf economies, remain limited. Most studies concentrate on leadership's direct impact on organizational performance or change management, neglecting how strategic leadership drives digital transformation as a catalyst for innovation (Bendary & Rajadurai, 2024; Montasser et al., 2023). In the context of Saudi Arabia's Vision 2030, the telecommunications industry stands as a cornerstone of national digital transformation, yet there remains a lack of integrated research on how strategic leaders navigate this transformation to achieve service innovation (Alayed, 2023; Hammami, 2024). Existing studies often treat leadership and digital transformation as parallel constructs rather than interdependent processes that reinforce one another to enable innovation (Pasaribu et al., 2021; Alakaş, 2024). Moreover, previous works have focused more on technology adoption or infrastructure readiness, overlooking the leadership competencies and digital literacy required to translate digital investments into innovative outcomes (Bhatti et al., 2021). Therefore, there is a clear gap in understanding how strategic leadership behaviors such as vision-setting, empowerment, and agility interact with digital transformation strategies to promote service innovation, especially in knowledge-intensive sectors like telecommunications (Sandhu & Al Naqbi, 2023; Soto Setzke et al., 2023). This gap underscores the need for a conceptual model that integrates leadership and digital transformation within a unified innovation framework.

4.2 Employee Engagement as a Mediator

Although employee engagement (EE) has been widely studied as a determinant of job satisfaction and productivity, its mediating role in organizational innovation processes remains underexplored. The relationship between leadership and innovation is well documented, yet how engagement transmits leadership influence into innovative outcomes is not sufficiently theorized (Niță & Guțu, 2023; Tian & Zhang, 2020). Many organizations invest heavily in digital transformation technologies without fully recognizing that the human response employee motivation, commitment, and adaptability determines the success of these initiatives (Hernik et al., 2025; Hizam et al., 2023). Existing studies have established that empowering leadership enhances engagement, which, in turn, fosters creativity and innovation (Lv et al., 2022; Aldabbas et al., 2023). However, limited empirical attention has been given to engagement as a psychological mechanism linking digital transformation and service innovation. Most research focuses on the technological dimension of digital transformation while overlooking how it shapes employee attitudes, behaviors, and engagement levels (Gül, 2025; Marampa et al., 2025). Furthermore, there is little focus on engagement within the telecommunications sector, where technological disruption demands higher levels of adaptability and innovative participation (Sandhu & Al Naqbi, 2023). Thus, a significant literature gap exists in explaining how employee engagement mediates the effects of strategic leadership and digital transformation on service innovation, particularly in the context of emerging economies such as Saudi Arabia. Addressing this gap would provide a more holistic understanding of the human factors underpinning digital innovation success.

4.3 Service Innovation in the Digital Era

Service innovation (SI) is increasingly recognized as a central element of competitive advantage in the digital economy, yet research in this domain remains fragmented. Many studies address innovation from a technological or process-oriented perspective, paying limited attention to the strategic and human dimensions that enable digital service innovation (Soto Setzke et al., 2023; Fan et al., 2022). Although digital transformation enhances organizational capabilities, it does not guarantee service innovation unless supported by visionary leadership and engaged employees who translate technology into customer value (Shehadeh et al., 2023; Awuku et al., 2023). In telecommunications, service innovation determines market sustainability, but studies have largely emphasized technical advancements, neglecting behavioral and leadership-driven antecedents (Blaique et al., 2024; Almazrouei & Hilmi, 2024). Furthermore, most innovation frameworks have been developed in Western contexts, leading to a gap in understanding how digital service innovation evolves in Middle Eastern economies under national transformation programs like Vision 2030 (Bendary & Rajadurai, 2024; Alayed, 2023). This gap highlights the need for a comprehensive conceptual model integrating leadership, digital transformation, and employee engagement as multi-dimensional antecedents of service innovation. Such an approach extends existing theories by demonstrating how technological capabilities and human engagement jointly drive innovation performance in the digital era (Niță & Guțu, 2023; Sandhu & Al Naqbi, 2023).

5. Conceptual Framework Development

The conceptual framework of this study integrates strategic leadership (SL), digital transformation (DT), employee engagement (EE), and service innovation (SI) to explain how leadership and technology interact to drive innovation in modern organizations. Rooted in transformational leadership theory and dynamic capabilities theory, the model posits that SL and DT act as primary innovation drivers, while EE functions as a mediating mechanism that converts strategic and technological capabilities into innovative service outcomes. This model aligns with Saudi Arabia's Vision 2030, which prioritizes digital transformation, leadership excellence, and workforce engagement as essential pillars of sustainable development and competitive advantage (Bendary & Rajadurai, 2024; Alayed, 2023).

5.1 Strategic Leadership and Digital Transformation

Strategic leadership serves as the guiding force behind organizational innovation and technological adaptation. Effective leaders craft a clear vision for change, align digital initiatives with strategic objectives, and foster a culture that encourages creativity and experimentation (Cortes & Herrmann, 2021; Sandhu & Al Naqbi, 2023). In the context of digital transformation, strategic leaders are instrumental in managing uncertainty, promoting digital literacy, and driving the adoption of emerging technologies across the organization (Weber et al., 2022; Cahyadi & Magda, 2021). Digital transformation, meanwhile, provides the infrastructure through which innovation flourishes. It enhances operational efficiency, customer experience, and service flexibility by embedding digital tools such as big data analytics, artificial intelligence, and automation into organizational processes (Bhatti et al., 2021; Shehadeh et al., 2023). When guided by effective leadership, DT enables firms to generate new value propositions and strengthen service performance (Soto Setzke et al., 2023; Fan et al., 2022). Research has shown that the synergy between SL and DT increases innovation capacity, as leadership supplies

direction and technology delivers the capability for transformation (Montasser et al., 2023; Hammami, 2024). Consequently, the convergence of these two forces establishes a foundation for sustained service innovation in dynamic industries such as telecommunications.

5.2 Employee Engagement and Service Innovation

Employee engagement constitutes the human element that transforms leadership vision and digital strategies into innovative action. Engaged employees display enthusiasm, commitment, and creativity, which enhance their ability to contribute to new service development and process improvement (Niță & Guțu, 2023; Aldabbas et al., 2023). Leadership behaviors that promote empowerment, trust, and recognition significantly increase engagement, creating a sense of belonging and motivation to innovate (Tian & Zhang, 2020; Almazrouei & Hilmi, 2024). In the era of digital transformation, engagement also determines how effectively employees adopt new technologies and integrate them into innovative practices. Studies have found that employees who are highly engaged are more likely to utilize digital tools productively and propose creative solutions that enhance service delivery (Lv et al., 2022; Pai et al., 2022). In organizations that prioritize engagement, collaboration and knowledge sharing become key drivers of service innovation (Wan et al., 2022; Blaique et al., 2024). Within Saudi Arabia's rapidly transforming telecom sector, engaged employees are the engine of service differentiation and quality improvement, enabling organizations to translate technological potential into meaningful customer value (Sandhu & Al Naqbi, 2023; Bendary & Rajadurai, 2024).

5.3 Mediating Role of Employee Engagement

Employee engagement acts as the mediating mechanism that connects leadership vision and digital transformation initiatives to service innovation outcomes. Transformational leaders influence engagement by articulating an inspiring vision, building trust, and creating psychologically safe environments that encourage innovation (Tian & Zhang, 2020; Niță & Guțu, 2023). Engaged employees respond by channeling their motivation and creativity toward developing new ideas, improving service quality, and enhancing performance (Aldabbas et al., 2023; Almazrouei & Hilmi, 2024). Similarly, digital transformation initiatives foster engagement when employees perceive technology as an enabler rather than a threat. Access to advanced digital tools increases employees' sense of autonomy and participation, leading to higher engagement and innovative behavior (Hernik et al., 2025; Gül, 2025). Studies indicate that digital workplaces that empower employees through collaboration, transparency, and learning opportunities produce stronger innovation outcomes (Tuyen et al., 2023; Hizam et al., 2023). In Saudi Arabia's Vision 2030 environment, this mediation effect underscores that both leadership and technology must operate in harmony with human motivation to sustain innovation. Hence, EE serves as the psychological bridge that translates strategic leadership and digital transformation into tangible service innovation results (Soto Setzke et al., 2023; Niță & Guțu, 2023).

5.4 Proposed Framework

The proposed conceptual framework (Figure 1) depicts the relationships among the study's four constructs strategic leadership, digital transformation, employee engagement, and service innovation. In this model, SL and DT are treated as independent variables that influence SI both directly and indirectly through EE as a mediating variable. The framework assumes partial mediation, suggesting that leadership

and technology independently affect innovation while also relying on engagement to maximize their impact. This model illustrates that strategic leadership provides the direction, digital transformation offers the capability, and employee engagement supplies the motivation to transform both into service innovation. The combination of these factors fosters a cycle of sustainable innovation and performance excellence, particularly relevant to digitally evolving industries under national transformation agendas such as Vision 2030 (Bendary & Rajadurai, 2024; Sandhu & Al Naqbi, 2023; Alayed, 2023).

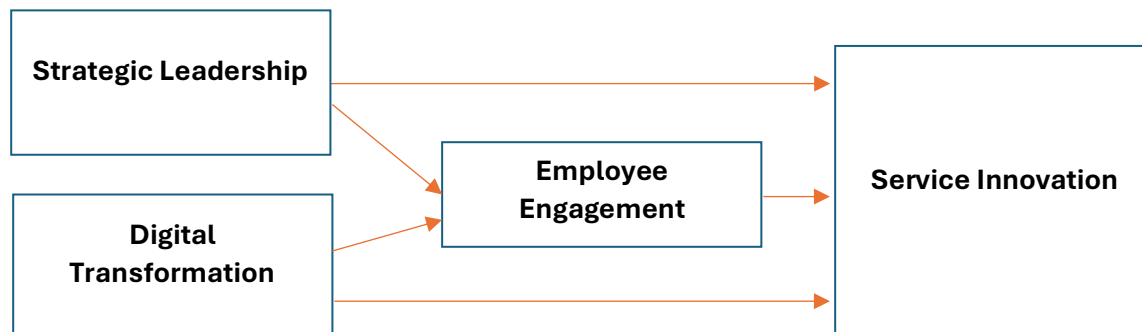


Fig. 1. Conceptual framework

6. Practical Implications

The findings and theoretical insights of this conceptual framework offer significant practical implications for telecom executives, policymakers and regulators, and HR and innovation managers. As organizations across Saudi Arabia and the wider Gulf region accelerate their digital transformation journeys in alignment with Vision 2030, the integration of strategic leadership (SL), digital transformation (DT), employee engagement (EE), and service innovation (SI) becomes increasingly critical. This framework highlights that innovation success depends not only on technological advancement but also on the leadership and human factors that drive its adoption and implementation (Soto Setzke et al., 2023; Sandhu & Al Naqbi, 2023). By leveraging these insights, organizations can strengthen their innovation ecosystems, enhance competitiveness, and contribute to the broader digital economy transformation envisioned for the region (Bendary & Rajadurai, 2024; Alayed, 2023).

6.1 For Telecom Executives

For telecom executives, the framework underscores the importance of strategic leadership in guiding digital transformation initiatives toward innovation outcomes. Executives must play an active role in articulating a clear digital vision and aligning technological investments with organizational strategy (Cortes & Herrmann, 2021; Weber et al., 2022). This includes fostering a culture of innovation where employees are encouraged to experiment, collaborate, and generate new ideas that improve service delivery (Sandhu & Al Naqbi, 2023). Executives should also prioritize developing digital leadership capabilities among mid-level managers to ensure that strategic goals are effectively translated into operational practices. This distributed leadership approach empowers teams to make data-driven

decisions and accelerates digital adoption across all organizational levels (Cahyadi & Magda, 2021; Alakaş, 2024). Moreover, investing in emerging technologies such as AI, cloud computing, and big data analytics must be accompanied by employee training programs that enhance digital literacy and innovative thinking (Bhatti et al., 2021). Telecom executives should treat employee engagement as a strategic resource one that fuels creativity, adaptability, and innovation in an increasingly digitalized service environment (Niță & Guțu, 2023; Gül, 2025). In essence, leaders who integrate digital and human strategies will be best positioned to deliver innovative, customer-centric services that strengthen organizational competitiveness.

6.2 For Policymakers and Regulators

For policymakers and regulators, the framework emphasizes the need to create an enabling environment that fosters digital transformation and service innovation. Regulatory frameworks must evolve to support innovation-driven business models in the telecommunications and ICT sectors while ensuring data protection, cybersecurity, and consumer trust (Shehadeh et al., 2023; Bendary & Rajadurai, 2024). Encouraging collaboration between the public and private sectors can facilitate knowledge sharing and technological diffusion, allowing smaller firms to benefit from digital transformation initiatives led by industry leaders (Fan et al., 2022). Furthermore, national policies should promote leadership development programs that equip executives and managers with digital and strategic competencies aligned with Vision 2030's innovation goals (Alayed, 2023; Hammami, 2024). Policymakers can also design incentive structures and innovation grants that reward organizations for demonstrating measurable progress in digital transformation and employee engagement. By embedding leadership and engagement development into national innovation policies, regulators can accelerate the creation of agile, knowledge-driven organizations capable of sustaining long-term growth (Bendary & Rajadurai, 2024; Niță & Guțu, 2023). The framework also calls for attention to human-centered innovation policies. Beyond infrastructure and technology funding, policymakers must invest in initiatives that enhance workforce skills, promote psychological safety, and cultivate engagement in digital workplaces. This human capital orientation ensures that technological innovation translates into tangible social and economic outcomes for Saudi Arabia's digital economy.

6.3 For HR and Innovation Managers

For HR and innovation managers, the framework highlights the central role of employee engagement as the mediating factor linking leadership and digital transformation to innovation outcomes. HR leaders should design engagement strategies that strengthen employees' connection to the organization's innovation vision and digital transformation journey (Aldabbas et al., 2023; Almazrouei & Hilmi, 2024). Building engagement requires a multidimensional approach that integrates communication, empowerment, and recognition. Managers must provide platforms for employee voice, collaborative innovation labs, and cross-functional digital teams that promote active participation in problem-solving (Lv et al., 2022; Wan et al., 2022). Innovation managers should align training and development programs with emerging technological trends, ensuring employees possess both digital and creative competencies. Initiatives such as innovation challenges, hackathons, and intrapreneurship programs can further enhance engagement and encourage employees to contribute to service innovation (Marampa et al., 2025; Gül, 2025). Furthermore, HR departments should adopt data-driven analytics to monitor engagement levels and innovation participation, linking performance management to measurable innovation contributions.

(Niță & Guțu, 2023). In addition, HR managers play a vital role in cultivating a psychologically safe environment where employees feel supported in taking risks and experimenting with new ideas. Such environments encourage innovation through trust and collaboration (Tian & Zhang, 2020; Aldabbas et al., 2023). Aligning leadership behavior, digital tools, and engagement strategies will allow HR and innovation managers to build a workforce that is not only technologically competent but also emotionally invested in driving continuous service innovation.

7. Conclusion

This conceptual framework emphasizes the synergistic relationship between strategic leadership, digital transformation, and employee engagement as key enablers of service innovation in modern organizations. It illustrates that visionary leadership provides the strategic direction and supportive culture necessary to guide technological change, while digital transformation equips organizations with the tools and agility needed to implement innovation. However, technology and leadership alone are insufficient without the active involvement and commitment of engaged employees, who serve as the human bridge translating strategic intent into creative and effective service innovations. The model reinforces the idea that innovation is both a technological and human process. Strategic leadership drives transformation by inspiring adaptability and forward thinking, digital transformation modernizes systems and processes, and employee engagement sustains motivation and creativity. Together, these dimensions form a holistic framework for building innovation-driven, future-ready organizations capable of sustaining competitive advantage in fast-changing environments. From a practical standpoint, organizations should focus on aligning leadership development, digital readiness, and engagement strategies under a unified innovation agenda. This integration ensures that digital transformation initiatives are not merely technological upgrades but catalysts for continuous learning, collaboration, and innovation. The framework also provides a foundation for future empirical research to validate and expand on the proposed relationships, offering a pathway for organizations to achieve sustainable service excellence and long-term growth.

8. References

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