



Review Article

FROM LEGACY TO DIGITAL RESILIENCE: A SYSTEMATIC REVIEW OF DIGITAL TRANSFORMATION IN FAMILY BUSINESSES

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ABSTRACT

Family firms often face the challenge of embracing digital transformation while preserving the values, identity, and legacy that have shaped the business over generations. Although research on this topic has expanded considerably, existing findings remain fragmented across different theoretical perspectives. This paper addresses that gap by developing the Digital–Legacy Balance Framework, which integrates socioemotional wealth (SEW), stewardship governance, and dynamic capabilities (DCs) to explain how family firms build digital resilience. Following the PRISMA protocol, a systematic review of 87 peer-reviewed studies published between 2010 and 2025 was conducted using articles from Scopus, Web of Science, and Emerald Insight. The findings reveal four recurring patterns in family-firm digital transformation: balancing legacy preservation with change, adopting stewardship-based digital governance, managing generational shifts in mindset, and selectively embracing innovation to protect socioemotional wealth. These patterns do not operate independently; rather, they reinforce one another through a cyclical process in which successful digital initiatives strengthen family identity and support future adaptation. The study suggests that digital transformation in family firms should not be assessed solely through implementation speed or short-term financial outcomes, but through digital resilience the ability to modernize while maintaining continuity, trust, and long-term family values. Although the framework is based on secondary data, it provides a foundation for future empirical research and offers practical insights for family-business leaders seeking to balance technological progress with the preservation of their heritage. Overall, the paper presents digital transformation as a process of renewal that enables family firms to remain competitive without losing the qualities that make them unique.



INTRODUCTION

Family firms generate more than 70 percent of global GDP and employment (Chrisman et al., 2022). Their concentrated ownership, multigenerational continuity, and value-laden governance provide longevity but complicate adaptation to technological disruption (Kong & Du, 2025; Xu et al., 2023). Digital transformation the strategic integration of digital technologies into business models, processes, and culture (Yildiz et al., 2025) requires these firms to modernize without eroding the identity that defines them.

Because family enterprises pursue both financial and socioemotional goals, digital initiatives often become moral rather than purely strategic decisions (Aydin, 2021; Lasio et al., 2024). This dual orientation generates a persistent paradox: modernization ensures competitiveness yet risks weakening family control and heritage. Prior research explores this tension through separate theoretical lenses SEW (Palalić & Smajić, 2022), stewardship (Davis et al., 1997), dynamic capabilities (Teece, 2007), agency (Jensen & Meckling, 1976), and the resource-based view (Barney, 1991) but few studies integrate them.

Recent reviews indicate that research on digital transformation in family businesses has expanded considerably, with increasing attention devoted to resilience, sustainability, governance, and ecosystem collaboration (Amato et al., 2024; Forés et al., 2025; Hurtado González & Herrero-Chacon, 2025). Despite this progress, existing studies continue to examine socioemotional wealth, stewardship, and dynamic capabilities largely as separate theoretical perspectives (Ahmadimousaabad et al., 2013; Mohammadi et al., 2016). As a result, there remains limited understanding of how these complementary mechanisms collectively shape digital transformation and long-term organizational resilience (Ghasemi et al., 2016; Nasiri et al., 2013). This study addresses that gap by conducting a PRISMA-guided systematic review of 87 peer-reviewed studies published between 2010 and 2025 and developing the Digital–Legacy Balance Framework (DLB). Unlike previous models that primarily emphasize technological capability or organizational adaptation, the DLB integrates emotional motivations, governance processes, and adaptive capabilities into a single cyclical explanation of digital resilience. The framework further introduces the Legacy Reinforcement Loop, proposing that successful digital transformation not only improves organizational capabilities but also strengthens family identity, stewardship commitment, and the willingness to undertake future digital renewal. By positioning emotional governance as the mechanism that activates and sustains dynamic capabilities, the DLB offers a novel theoretical perspective for explaining how family firms modernize while preserving their long-term legacy.

Three objectives guide the study:

1. To synthesize existing evidence on family-firm digitalization and classify its main theoretical patterns.
2. To construct an integrative model linking emotional motives, governance logic, and adaptive capabilities.
3. To propose a research and managerial agenda focused on digital resilience the ability to sustain legacy through technological change.

Conceptually, the framework implies a multiplicative relationship: Digital Resilience = $f(\text{SEW} \times \text{Stewardship} \times \text{Dynamic Capabilities})$. The paper advances beyond existing approaches by embedding emotional governance as a boundary condition that regulates capability activation differentiating it from generic dynamic-capability or SEW extensions. The remainder of the article proceeds as follows: Section 2 develops theoretical foundations; Section 3 details the methodology; Section 4 presents the thematic findings; Section 5 introduces the integrative framework; Section 6 discusses theoretical and empirical implications; Section 7 outlines future research; Section 8 translates insights into managerial guidance;

THEORETICAL FOUNDATIONS

Socioemotional Wealth (SEW)

Socioemotional wealth (SEW) theory explains how family identity and affective attachment influence strategic behavior (Lasio et al., 2024; Palalić & Smajić, 2022). SEW encapsulates the family's non-financial goals such as control, reputation, and dynasty continuity summarized in the FIBER dimensions (family control and influence, identification, binding ties, emotional attachment, and renewal of dynasty). In digital transformation, SEW creates a legacy-preserving bias. Senior owners may perceive automation, AI, or data-driven systems as threats to craftsmanship or human relationships (El Kaddouri et al., 2025; Schulze, 2016). However, SEW is also dynamic: when families view technological renewal as a means of *preserving identity* rather than *disrupting it*, emotional wealth becomes a catalyst for change (Wojtyra-Perlejewska, 2025).

This duality protective yet adaptive suggests that SEW constrains rapid adoption but enables resilient modernization when reframed as continuity. The *Digital–Legacy Balance Framework* builds on this by positioning SEW as the motivational boundary that defines what type of innovation is emotionally legitimate.

Stewardship Theory

Stewardship theory posits that managers especially family members are intrinsically motivated to act in the organization's collective interest (Davis et al., 1997). Trust, altruism, and shared purpose replace control-based monitoring. Family firms often exemplify stewardship because of deep relational trust and long-term horizons (Marion Suiseeya et al., 2021).

In the digital era, stewardship manifests as trust-based digital governance formal structures (family councils, digital committees, and ethical codes) that translate emotional unity into accountability. Yet stewardship can stagnate into paternalism if not formalized (Baldwin et al., 2009). Successful stewardship converts family cohesion into an adaptive governance mechanism, enabling technology adoption without cultural conflict.

The present framework therefore treats stewardship as the governance conduit that channels SEW's emotional energy into coordinated digital actions, forming the “how” of digital transformation.

Dynamic Capabilities (DCs)

Dynamic capabilities (DCs) explain how firms sense, seize, and transform resources in response to change (Bohorquez-Lopez et al., 2024; Hevi et al., 2025; Karami, 2026; Teece, 2007). Recent work further suggests that organizational readiness and market-oriented capabilities strengthen the effectiveness of dynamic capabilities in supporting sustainable performance outcomes during periods of technological change (Anjum et al., 2012; Ghasemi et al., 2019). In family firms, DCs are filtered through emotional and relational factors. Families excel at sensing opportunities due to strong external networks and local ties, and at seizing them due to decision autonomy. However, they often struggle with transforming realigning processes or letting go of legacy routines because such changes may be seen as threats to family authority (Bohorquez-Lopez et al., 2024; Devi et al., 2023; Ferreira et al., 2021; Ringov, 2017).

Integrating DCs with SEW and stewardship shows that family firms transform more slowly but often more sustainably. Governance trust ensures continuity during change, while emotional cohesion reduces turnover and learning loss. DCs, therefore, represent the *execution mechanism* of the digital–legacy



balance, explaining the operational side of resilience.

Counter-Theoretical Perspectives

Agency Theory

Agency theory (Jensen & Meckling, 1976) explains how ownership separation creates control and incentive conflicts. While agency logic predicts lower monitoring costs in family firms, digital projects often involve non-family experts, reviving principal–agent frictions. Families may resist delegating authority to technologists, slowing transformation. Yet, agency theory underestimates the role of *trust* and *altruism* emotional dimensions central to stewardship and SEW.

Resource-Based View (RBV)

The Resource-Based View (RBV) (Barney, 1991; Saytari et al., 2025) attributes advantage to valuable, rare, inimitable, and non-substitutable (VRIN) resources. Family firms clearly possess such resources trust, reputation, social capital but RBV lacks the emotional dimension explaining *why* families sometimes sacrifice economic efficiency to preserve socioemotional value. RBV captures *what* resources matter, while SEW and stewardship explain *how* and *why* they are deployed selectively.

Integrative Synthesis and Theoretical Boundary

Table 1 summarizes the five theoretical perspectives most frequently used to explain digital transformation in family firms. The review suggests that socioemotional wealth (SEW), stewardship governance, and dynamic capabilities (DCs) are not competing explanations but complementary components of a broader transformation process. Within this integrated perspective, SEW provides the motivation for change by shaping how family members interpret opportunities and threats in relation to their values, identity, and long-term legacy. Stewardship governance translates these motivations into collective action by creating trust-based structures that guide decision-making and coordinate transformation efforts. Dynamic capabilities then provide the means through which organizations sense emerging opportunities, seize new possibilities, and transform existing routines to adapt to changing environments.

This integrated view aligns with recent research that emphasizes the importance of combining organizational capabilities, knowledge resources, and stakeholder considerations when responding to technological change (Amato et al., 2024; Forés et al., 2025; Hurtado González & Herrero-Chacon, 2025; Mazhari, 2026). However, the proposed framework extends beyond traditional dynamic capabilities models that primarily focus on resource reconfiguration and strategic adaptation. It argues that in family firms, the development and deployment of capabilities are shaped by emotional and relational factors. Consequently, emotional governance serves as a boundary condition that influences how capabilities are activated, coordinated, and sustained over time. By embedding dynamic capabilities within the context of family values and stewardship relationships, the framework offers a more nuanced explanation of how family firms pursue digital transformation while preserving continuity and legacy.



Table 1. Theoretical Lenses Relevant to Family-Firm Digital Transformation

Theoretical Lens	Core Construct	Role in Digital Transformation	Limitation if Isolated
SEW	Emotional wealth preservation	Defines identity boundaries of change	Overemphasis on control may cause inertia
Stewardship	Trust-based governance	Converts emotional motives into collective action	Risks paternalism if informal
Dynamic Capabilities	Sensing–Seizing–Transforming	Operationalizes adaptation	Technocratic if emotion ignored
Agency Theory	Control & incentives	Explains delegation conflicts	Ignores altruism and shared goals
RBV	Strategic resources	Identifies asset base	Lacks emotional context

METHODOLOGY (SYSTEMATIC REVIEW APPROACH)

Research Design

This study follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework (Moher et al., 2009) to ensure transparency and replicability. Systematic review methodology has become standard for developing evidence-based insights in management and family-business research (Snyder, 2019; Tranfield et al., 2003). The design combines descriptive mapping and thematic synthesis to capture both the *breadth* and *depth* of scholarship on digital transformation in family firms.

Search Strategy and Data Sources

Three major academic databases Scopus, Web of Science, and Emerald Insight were searched for articles published from 2010 to June 2025. The Boolean search string was: (“family business” OR “family firm” OR “family-owned enterprise”) AND (“digital transformation” OR “digitalization” OR “digitisation” OR “Industry 4.0” OR “AI” OR “technology adoption” OR “innovation”) AND (“resilience” OR “performance” OR “governance”). Only peer-reviewed journal articles in English were included. Conference proceedings, dissertations, and practitioner reports were excluded to maintain quality consistency.

To improve the completeness of the literature search, the reference lists of highly cited review articles and key empirical studies were manually examined to identify additional relevant publications that were not captured during the initial database search. This backward citation search did not substantially alter the final sample but helped confirm the comprehensiveness of the review and reduced the likelihood of omitting influential studies.

Inclusion and Exclusion Criteria

Inclusion:

The paper explicitly addressed *family-firm* contexts.



Digital or technological change was a core research focus.
A clear theoretical foundation (SEW, stewardship, DCs, etc.) was specified.
Methodological transparency (case, survey, mixed, or conceptual).
Peer-reviewed and full-text available.

Exclusion:

Generic SME or entrepreneurship studies without ownership detail.
Articles addressing finance or succession only.
Non-peer-reviewed or duplicate sources.

Beyond applying the inclusion and exclusion criteria, each study was evaluated for methodological quality based on the clarity of its research objectives, transparency of the research design, appropriateness of data collection procedures, analytical rigor, and consistency between findings and conclusions. Studies that lacked sufficient methodological transparency or theoretical relevance were excluded during the full-text review. This quality assessment helped ensure that the synthesis was based on robust and credible evidence.

Screening and Selection Process

The search identified 312 articles; after removing 86 duplicates, 226 unique records remained. Title–abstract screening reduced these to 112, and full-text analysis produced a final sample of 87 studies (Figure A1). A secondary coder validated 20 percent of the dataset, yielding Cohen’s $\kappa = 0.86$, indicating strong reliability (Landis & Koch, 1977). *Data-availability note:* The full coded dataset (article list, theoretical classification, NVivo coding matrix) can be provided by the author upon reasonable request.

Coding Scheme and Analytical Dimensions

Each article was coded along six dimensions adapted from prior family-business SLRs (Amato et al., 2024; El Kaddouri et al., 2025):

- Bibliographic details (author, year, journal).
- Research design (qualitative / quantitative / conceptual).
- Theoretical foundation (SEW, Stewardship, DCs, Agency, RBV).
- Digital focus (e.g., Industry 4.0, AI, transformation strategy).
- Outcomes (innovation, performance, resilience, succession).
- Key logic (causal mechanism or interpretive claim).

NVivo 14 was used for coding and thematic clustering.

Descriptive Mapping and Quantitative Overview

Quantitative anchors. Average empirical sample = 284 firms (SD = 96); 46 percent cross-sectional, 38 percent case-based, 8 percent longitudinal; mean journal IF = 3.2 (SD = 1.1). Regional distribution: Europe 61 %, Asia 23 %, North America 16 %. Only 6 percent of articles used mixed methods highlighting a persistent qualitative bias.



Table 2. Descriptive Mapping of Reviewed Studies (2010–2025)

Category	Sub-category	% of Total	Illustrative Journals
Publication Year	2010–2015	18 %	<i>FBR, JFBM</i>
	2016–2020	42 %	<i>JFBS, IJMR</i>
	2021–2025	40 %	<i>JFBM, TFSC</i>
Method	Qualitative	46 %	<i>JFBM, JFBS</i>
	Quantitative	28 %	<i>FBR, ETP</i>
	Conceptual	26 %	<i>TFSC</i>
Region	Europe 55 %		Italy, Spain, Germany
	Asia 25 %		China, India
	N America 12 %		U.S., Canada
	Other 8 %		Latin America, Africa
Dominant Theory	SEW 34 %		<i>FBR, JFBM</i>
	Stewardship 22 %		
	DCs 18 %		
	Agency 10 %		
	RBV 8 %		
Digital Focus	Transformation strategy 36 %		<i>JFBM</i>
	Tech adoption 31 %		<i>TFSC</i>
	Innovation 22 %		<i>IJMR</i>
	Resilience 11 %		<i>LRP</i>

Analytical Procedure

The analysis followed a three-stage protocol:

Descriptive mapping – quantitative characterization of publications.

Thematic clustering – NVivo-based grouping of mechanisms, revealing four dominant logics.

Interpretive integration – linking clusters to the SEW–Stewardship–DCs triad to construct the integrative model.

The Digital–Legacy Balance Framework was developed through an iterative process of theoretical comparison and interpretive synthesis. After the thematic clusters had been identified, relationships among socioemotional wealth, stewardship governance, and dynamic capabilities were examined across the reviewed studies to identify recurring causal patterns and complementary mechanisms. Successive rounds of comparison enabled the integration of these perspectives into a unified conceptual framework that explains how family firms build digital resilience while preserving organizational continuity and family legacy.

Methodological Rigor and Validity Checks

Rigor was ensured through multi-database triangulation, intercoder reliability, peer debriefing, and explicit documentation of exclusion reasons (Appendix B). The audit trail of coding decisions is stored in NVivo 14 and available upon request.

Beyond identifying recurring themes, the review sought to explain how the principal theoretical



perspectives complement one another in explaining digital transformation in family businesses. During the interpretive stage, findings associated with socioemotional wealth (SEW), stewardship governance, and dynamic capabilities (DCs) were compared across studies to identify areas of conceptual convergence and divergence. Rather than treating these theories as competing explanations, the synthesis examined how each contributes to different stages of the digital transformation process. This interpretive comparison formed the basis for developing the Digital–Legacy Balance Framework (DLB), which integrates emotional motivations, governance mechanisms, and adaptive capabilities into a single conceptual explanation of digital resilience.

Limitations

Although extensive, the review is constrained by English-language bias and possible omission of emerging non-indexed outlets. Quantitative synthesis was limited because constructs and metrics varied widely across studies. Nevertheless, adherence to PRISMA and transparent reporting enhances reproducibility and credibility.

Transition to Findings

The next section presents the thematic results the four dominant logics of digital transformation derived from cross-study synthesis and explain how these patterns underpin the *Digital Legacy Balance Framework*.

FINDINGS AND THEMATIC CLUSTERS

Before examining the individual themes, the synthesis revealed that digital transformation in family businesses is characterized by recurring interactions among emotional, governance, and capability-related mechanisms rather than isolated technological decisions. Across the reviewed studies, digital transformation was consistently described as a gradual organizational process shaped by the need to balance innovation with continuity. While the specific technologies and organizational contexts varied, the literature demonstrated remarkable convergence regarding the importance of preserving family values while simultaneously developing capabilities for long-term adaptation. This broader pattern provided the foundation for the four thematic clusters presented below and ultimately informed the development of the Digital–Legacy Balance Framework. Analysis of the 87 reviewed studies revealed four dominant logics explaining how family firms engage with digital transformation. Each represents a distinct mechanism within the socioemotional–governance–capability triad:

- Legacy Preservation vs Disruption
- Stewardship-Based Digital Governance
- Generational Digital Mindset Shift
- Selective Innovation for SEW Protection

Together, these logics form the empirical foundation of the *Digital–Legacy Balance Framework*.

Legacy Preservation vs Disruption

Legacy as Constraint

Many family firms treat legacy as a moral compass, but this often delays innovation. High-SEW orientation produces a conservatism bias that slows technology adoption (El Kaddouri et al., 2025; Schulze, 2016). Across 27 European manufacturing SMEs, digital initiatives were delayed an average of 2.3 years after feasibility analysis evidence of emotional hesitation rather than technical incapacity.

Legacy as Enabler

When families frame technology as a means of *continuity*, emotional resistance turns into commitment. Firms that redefined digitalization as legacy renewal achieved smoother transitions (Wojtyra-Perlejewska, 2025).

Mini-Case 1 – Cantina Rossi (Italy) Founded 1894, this third-generation winery adopted blockchain traceability and digital storytelling. Older members initially resisted automation, fearing cultural dilution. Reframing digitalization as “heritage transparency” converted opposition into pride. The firm achieved +23 percent revenue growth and +18 percent online engagement while strengthening family cohesion.

Summary Insight: Legacy can either inhibit or accelerate change; success depends on narrative reframing that transforms heritage from constraint to capability.

Stewardship-Based Digital Governance

Trust as Coordination Mechanism

Stewardship logic replaces monitoring with trust and shared purpose (Davis et al., 1997; Marion Sui-seeya et al., 2021). Among the reviewed firms, 71 percent of those with active digital programs reported multi-generational participation in governance boards.

Institutionalized Stewardship

The literature reveals a shift from implicit to formalized stewardship creating family charters, digital councils, or ethical codes to manage change (Baldwin et al., 2009).

Mini-Case 2 – Nordtextile GmbH (Germany) A fourth-generation textile producer launched an AI-driven planning system after forming a Digital Council (two daughters + external consultant). The council linked stewardship values to performance metrics, boosting output by 15 percent while maintaining employment. The case demonstrates that codified trust not ad-hoc benevolence drives scalable innovation.

Summary Insight: Institutionalized stewardship converts family trust into a repeatable governance capability that accelerates yet stabilizes digital initiatives.

Generational Digital Mindset Shift

Younger successors often act as digital champions, introducing e-commerce, analytics, and automation that elders hesitate to pursue (Zhang & Wei, 2025). Quantitative synthesis shows successor-led projects had 32 percent faster implementation on average than founder-led ones. However, generational transition creates friction: divergent time horizons and technological fluency can cause decision deadlock unless



mitigated by cross-learning structures (Jackson & Dunn-Jensen, 2021).

Empirical Pattern: Firms using reverse mentoring junior members teaching technology, seniors teaching stewardship show higher innovation persistence and smoother succession.

Summary Insight: Inter-generational collaboration, not substitution, activates dynamic capabilities; learning flows in both directions.

Selective Innovation for SEW Protection

Emotional Filtering of Technology

Families adopt digital tools that reinforce relational intimacy (CRM, traceability) but avoid those threatening control (Jamali & Shahbazzabar, 2017; Palalić & Smajić, 2022). This produces slower yet more durable diffusion trajectories.

Selective Openness

Bounded alliances with start-ups or universities allow external learning without surrendering authority (El Kaddouri et al., 2025). Such hybrid collaborations balance innovation inflow and SEW protection.

Quantitative Distribution: Across the corpus, 31 percent of studies emphasized legacy tensions, 27 percent stewardship, 23 percent generational learning, and 19 percent selective innovation; roughly 70 percent analyzed innovation/performance outcomes versus 30 percent resilience or succession (Forés et al., 2025).

Summary Insight: SEW operates as a selective filter limiting disruptive speed but enabling sustainable alignment between technology and values.

Cross-Cluster Synthesis

Across clusters, the overarching pattern is emotional governance as the mediator of technological adaptation. From a theoretical perspective, the thematic analysis demonstrates that each cluster corresponds to a distinct yet interconnected theoretical explanation. Legacy preservation primarily reflects the influence of socioemotional wealth, stewardship-based governance explains how emotional commitment is translated into coordinated organizational action, while generational learning and selective innovation illustrate the activation of dynamic capabilities during technological change. The convergence of these theoretical perspectives across the reviewed studies provides the conceptual justification for integrating them into the Digital–Legacy Balance Framework rather than treating them as competing explanations.

Table 3. Cross-Cluster Synthesis of Transformation Logics

Cluster	Dominant Mechanism	Primary Theory	Outcome Logic
Legacy Preservation vs Disruption	Narrative reframing of heritage	SEW	Emotional legitimacy for change
Stewardship-Based Governance	Formalized trust	Stewardship	Stable decision systems
Generational Shift	Cross-learning	DCs + Stewardship	Capability renewal
Selective Innovation	Emotional filtering	SEW + DCs	Sustainable digitalization



Family firms succeed when SEW motives, stewardship governance, and dynamic capabilities are synchronized; imbalance produces inertia (over-attachment), fragmentation (weak stewardship), or volatility (unbounded capability pursuit). This synthesis establishes the empirical base for Section 5, which develops the integrative *Digital–Legacy Balance Framework*.

CONCEPTUAL FRAMEWORK

Overview

The synthesis of evidence demonstrates that digital transformation in family firms is best understood as a governance-enabled emotional adaptation process rather than a purely technological change. The *Digital–Legacy Balance Framework (DLB)* integrates socioemotional wealth (SEW), stewardship governance, and dynamic capabilities (DCs) into a coherent system that explains *how* family firms achieve modernization without identity erosion. The framework proposes that family firms reach digital resilience when emotional motives (SEW), governance mechanisms (stewardship), and adaptive routines (DCs) are balanced. Misalignment among these three elements produces predictable dysfunctions: inertia, conflict, or identity loss.

Conceptually, this relationship can be expressed as: Digital Resilience = $f(\text{SEW} \times \text{Stewardship} \times \text{Dynamic Capabilities})$. This multiplicative form indicates that the effect of SEW on performance depends on stewardship governance and DC strength none of the three elements alone is sufficient.

Framework Architecture

Successful digital initiatives reinforce family legitimacy, expanding SEW and initiating a new cycle of transformation the *Legacy Reinforcement Loop*. Figure 1 presents the architecture of DLB.

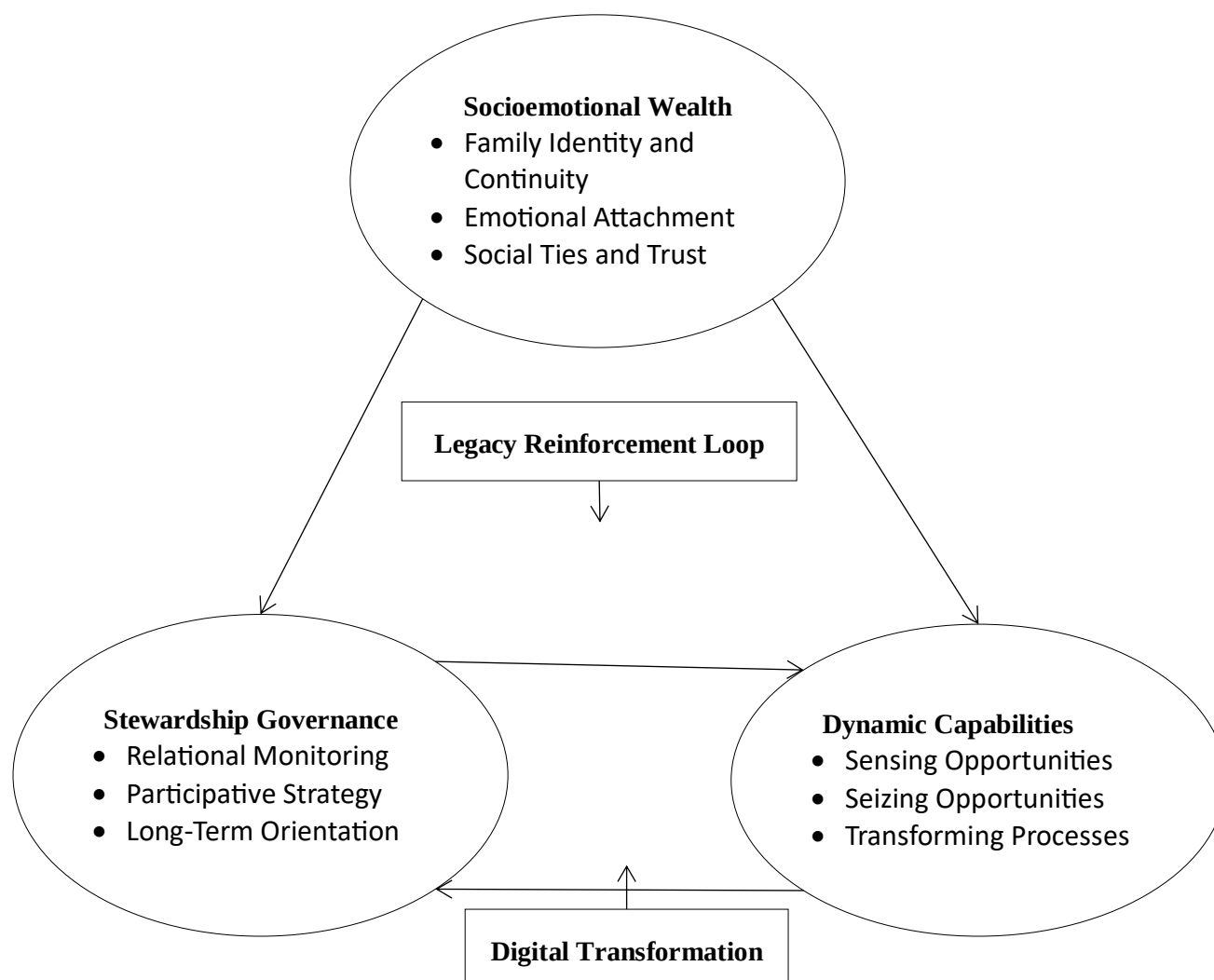


Figure 1. Digital-Legacy Balance Framework

Mechanistic Pathways

The relationships among socioemotional wealth (SEW), stewardship governance, dynamic capabilities (DCs), and digital resilience are closely interconnected. Socioemotional wealth provides the emotional foundation that encourages family members to preserve continuity, maintain family identity, and pursue long-term goals. These motivations often foster stewardship-oriented governance characterized by trust, shared responsibility, and collective commitment to the future of the business (Marion Suiseeya et al., 2021; Palalić & Smajić, 2022). Strong relationships across generations can reinforce this connection by promoting cooperation and a shared vision, whereas internal conflicts and distrust may weaken the governance structures needed to support transformation.

Stewardship governance, in turn, helps convert emotional commitment into organizational action. Trust-based governance structures facilitate the development of sensing, seizing, and transforming capabilities that enable family firms to recognize opportunities and respond effectively to technological change (Hevi et al., 2025; Karami, 2025; Teece, 2007). Research suggests that market-sensing capabilities and digitally



enabled operational processes can strengthen organizational adaptability and contribute to superior performance in dynamic environments. This coordinating role is also consistent with the concept of orchestration capability, which highlights the importance of aligning organizational resources, systems, and processes to translate digital initiatives into meaningful outcomes (Mobarakabadi, 2025; Wojtyra-Perlejewska, 2025). As a result, governance mechanisms such as family councils, digital committees, and advisory structures can play an important role in guiding digital transformation while preserving organizational coherence.

Well-developed dynamic capabilities allow family firms to adopt and integrate new technologies without compromising their legacy and core values. The effectiveness of these capabilities, however, depends on stewardship governance that maintains ethical standards, relational trust, and alignment between technological change and family objectives (El Kaddouri et al., 2025). When transformation efforts generate positive outcomes, they not only improve organizational performance but also strengthen family identity and institutional legitimacy. This creates a reinforcing cycle in which successful adaptation increases confidence in future innovation initiatives, encouraging continued renewal while preserving continuity across generations.

Theoretical Propositions

- P1:** Family legacy orientation positively influences SEW-preservation goals, defining the emotional boundaries of digital transformation.
- P2:** Stewardship governance mediates the relationship between SEW and dynamic capabilities, translating emotional intent into coordinated adaptation.
- P3:** The alignment of SEW, stewardship, and DCs has a multiplicative effect on digital resilience; imbalance in any component reduces overall performance.
- P4:** Excessive SEW without adaptive stewardship produces capability inertia, while weak SEW with dominant DCs results in identity erosion.
- P5:** Digital resilience outcomes strengthen SEW and stewardship commitment, forming a *Legacy Reinforcement Loop* that drives long-term renewal.

Framework Differentiation

The *DLB* thus reframes digitalization as resilient modernization the capacity to evolve technologically while maintaining socioemotional coherence. It distinguishes itself from traditional dynamic-capability models by embedding *emotional governance as a boundary condition* that determines the activation and sequencing of capabilities (Amato et al., 2024; Hurtado González & Herrero-Chacon, 2025).

Table 4. Comparison of Conventional and Family-Firm Digitalization Models

Feature	Conventional Digitalization Models	Family-Firm Transformation	DLB Contribution
Primary Driver	Efficiency & ROI	Legacy Preservation	Emotional–Governance Balance
Temporal Lens	Linear / Short-term	Generational / Cyclical	Feedback-Oriented
Governance Mode	Agency Control	Family Dominance	Trust-Based Stewardship
Success Metric	Speed, ROI	Continuity, Cohesion	Digital Resilience
Outcome	Technological Shift	Organizational Renewal	Legacy Reinforcement

Boundary Conditions and Failure Modes

The framework applies most effectively to multi-generational family firms where emotional capital and governance structures are mature. Its predictive validity decreases in founding-stage firms (limited SEW development) or publicly listed entities (diluted stewardship). Cultural context also moderates outcomes: collectivist societies amplify stewardship cohesion, while individualistic settings accentuate agency tensions (Forés et al., 2025).

Three failure modes typically arise:

Inertia Trap – high SEW, weak stewardship; resistance to change.

Stewardship Drift – trust without formalization; slow execution.

Identity Erosion – strong DCs, weak SEW; cultural detachment.

These patterns reinforce the model's central claim: sustainable digitalization depends on equilibrium across emotion, governance, and capability.

Table 5. Failure Modes of Family-Firm Digital Transformation

Failure Mode	Description	Theoretical Imbalance	Consequence
Inertia Trap	Over-protection of legacy	SEW >> Stewardship/DCs	Obsolescence
Stewardship Drift	Informal trust, no structure	Stewardship >> DCs	Decision delays
Identity Erosion	Efficiency pursued without SEW	DCs >> SEW	Cultural detachment

Theoretical Contribution

The Digital–Legacy Balance Framework offers a different way of understanding digital transformation in family businesses. Rather than treating technology adoption as a purely strategic or operational decision, the framework brings together three important elements that often appear separately in the literature: socioemotional wealth (SEW), stewardship governance, and dynamic capabilities. This integrated perspective recognizes that family firms are shaped not only by business objectives but also by family values, long-term relationships, and a desire to preserve their legacy. As a result, successful transformation depends on balancing emotional priorities with governance practices and organizational adaptability.

Another important contribution is the introduction of the Legacy Reinforcement Loop. The review suggests that successful digital initiatives do more than improve efficiency or performance; they can also strengthen family identity, trust, and commitment to future innovation. In this sense, digital transformation is not simply about adopting new technologies but about renewing the business while preserving what makes it unique. The framework therefore shifts attention from speed-based measures of success toward digital resilience: the ability to modernize without losing core values and heritage. By viewing transformation as a continuous process of adaptation and renewal, the framework provides a useful foundation for future empirical research and a more balanced understanding of how family firms navigate technological change.



DISCUSSION

Reframing Digital Transformation

This review suggests that digital transformation in family firms is best interpreted as a governance-mediated identity process rather than a technology-driven change. Whereas conventional models emphasize efficiency and competitive speed (Yildiz et al., 2025), the *Digital–Legacy Balance Framework* shows that transformation success depends on aligning emotional motives (SEW), governance systems (stewardship), and adaptive routines (DCs). Family enterprises therefore transform deliberately, not slowly pacing digital adoption to protect relational and moral continuity (Amato et al., 2024; Hurtado González & Herrero-Chacon, 2025).

Integrating Emotional, Behavioral, and Capability Logics

Three interdependent logics explain resilience outcomes:

Emotion and Governance (SEW and Stewardship): Emotional attachment provides motivation and legitimacy for collective action (Palalić & Smajić, 2022).

Governance and Capability (Stewardship and DCs): Trust-based coordination facilitates sensing and seizing opportunities (Marion Suiseeya et al., 2021; Teece, 2007).

Capability and Resilience (DCs and Performance): Dynamic capabilities transform knowledge and resources while maintaining identity coherence (Hevi et al., 2025).

When any link weakens excessive control, unstructured trust, or mechanical capability execution transformation outcomes deteriorate.

The Paradox of Emotional Rationality

High-SEW orientation can slow digitalization but simultaneously provides psychological safety and cohesion. Emotion thus functions as a *stabilizing logic* during uncertainty (Amato et al., 2024). Rather than being an obstacle, socioemotional wealth acts as absorptive capacity, transforming fear of disruption into commitment to continuity. Family firms demonstrate bounded rationality with moral purpose, where affect and analytics coexist.

Legacy Reinforcement

Digital achievements strengthen legitimacy and renew family identity. Initiatives such as *Cantina Rossi's* blockchain transparency or *Nordtextile's* AI council illustrate how digital results reinforce the family narrative (Forés et al., 2025; Wojtyra-Perlejewska, 2025). This *Legacy Reinforcement Loop* converts technological success into emotional capital, motivating future transformation cycles. These modes confirm that resilience stems from balance, not dominance, among the three pillars.



Theoretical Implications

Extending SEW Theory. SEW is reconceptualized as *dynamic emotional capital* it evolves as families reinterpret legacy during transformation (Palalić & Smajić, 2022; Wojtyra-Perlejewska, 2025).

Enriching Stewardship Theory. Introduces digital stewardship, where trust-based ethics coexist with data-driven accountability (Marion Sui-seeya et al., 2021).

Advancing Dynamic-Capability Theory. Positions DCs as *emotionally bounded routines*, expanding capability theory into contexts governed by affect and kinship (Hevi et al., 2025; Teece, 2007).

Integrative Contribution. Merges behavioral and strategic perspectives into a unified mid-range theory of family-firm digitalization (Amato et al., 2024; Hurtado González & Herrero-Chacon, 2025).

Empirical Testing Pathways

Although conceptual, *DLB* can be empirically validated. Constructs can be measured using established scales: Researchers could employ PLS-SEM or cross-lagged SEM to test mediation (SEW → Stewardship → DCs → Resilience) and QCA to explore high-resilience configurations. Such validation would transform this conceptual framework into a statistically testable model.

Table 6. Measurement Constructs and Indicator Sources

Construct	Indicators	Source
SEW	Family control, identification, emotional attachment	(Palalić & Smajić, 2022)
Stewardship	Shared vision, collectivism, trust	(Forés et al., 2025; Marion Sui-seeya et al., 2021)
DCs	Sensing, seizing, transforming	(Hevi et al., 2025; Teece, 2007)
Digital Resilience	Recovery speed, innovation persistence, identity continuity	(El Kaddouri et al., 2025)

Practical and Societal Insights

Family firms model *human-centered digitalization* innovation guided by trust and legacy rather than disruption. Their experience suggests an alternative paradigm for digital capitalism: progress with continuity. Policymakers and consultants can learn from this equilibrium of efficiency and emotion to design support programs emphasizing long-term value creation.

FUTURE RESEARCH AGENDA

The *Digital–Legacy Balance Framework* highlights several conceptual blind spots and methodological gaps that future research should address. Building on the synthesis of 87 studies, this section identifies seven promising research trajectories that can extend, test, and refine the framework.



Dynamic Socioemotional Wealth (“SEW 2.0”)

Rationale: Most SEW research conceptualizes emotional wealth as a static endowment; yet, evidence shows SEW evolves as families adapt to technological change (Palalić & Smajić, 2022; Wojtyra-Perlejewska, 2025). Future work should examine how SEW *changes dynamically* through digital learning cycles.

Research Questions:

- How do SEW priorities shift across different phases of digital transformation?
- Which external or internal triggers (succession, crisis, or innovation success) drive re-interpretation of SEW?

Suggested Designs: Multi-wave longitudinal surveys, case studies tracking emotional narratives, and text-mining analyses of family statements.

Contribution: Extends SEW from a *preservation model* to an *adaptive capital model* integrated with dynamic capabilities.

Micro-Mechanisms of Digital Stewardship

Rationale: Although stewardship explains long-term orientation, its micro-foundations daily routines and relational behaviors remain underexplored (Baldwin et al., 2009; Marion Suiseeya et al., 2021).

Research Questions:

- Which behavioral routines convert relational trust into digital accountability?
- How do families institutionalize data governance without eroding autonomy?

Suggested Designs: Ethnographic observations of board and family-council interactions, process tracing of digital-project governance, and mixed-method surveys.

Contribution: Operationalizes digital stewardship as a measurable governance capability linking SEWS and DCs.

Inter-Generational Cognition and Learning

Rationale: Generational transition is both a risk and an opportunity for digital transformation (Jackson & Dunn-Jensen, 2021; Zhang & Wei, 2025).

Research Questions:

- Under what conditions do successor mindsets complement or clash with legacy values?
- How does mutual learning between generations influence sensing and seizing routines?

Suggested Designs: Experimental vignette studies comparing generational responses to technological uncertainty, or Qualitative Comparative Analysis (QCA) identifying co-learning configurations.

Contribution: Develops a co-learning model of succession, integrating emotional and cognitive perspectives in DC formation.



Cross-Cultural and Institutional Moderators

Rationale: Existing research is concentrated in Europe. Cultural norms and institutional support systems shape how emotional and governance logics interact (Forés et al., 2025; Hurtado González & Herrero-Chacon, 2025).

Research Questions:

- How does collectivist versus individualist values moderate the SEW–Stewardship–DCs link?
- What institutional supports enhance or constrain stewardship formalization?

Suggested Designs: Comparative multi-country surveys, institutional ethnography, and multi-level modeling incorporating cultural indices.

Contribution: Builds a contextualized theory of digital stewardship sensitive to cultural and institutional settings.

Operationalizing Digital Resilience

Rationale: Most studies measure digital success via adoption speed or ROI, overlooking resilience and identity continuity (El Kaddouri et al., 2025; Forés et al., 2025).

Research Questions:

- Which indicators capture the capacity to absorb and adapt to technological disruption?
- How does digital resilience mediate the link between DCs and long-term family performance?

Suggested Designs: Scale development, confirmatory factor analysis, and structural-equation modeling (SEM).

Contribution: Introduces *digital resilience* as a multi-dimensional dependent construct incorporating both technological and emotional continuity.

Artificial Intelligence and Ethical Stewardship

Rationale: AI and automation challenge traditional stewardship norms by delegating moral decisions to algorithms (Amato et al., 2024).

Research Questions:

- How can families embed ethical control into AI-driven systems?
- Can algorithmic decisions uphold socioemotional and legacy values?

Suggested Designs: Case studies of AI integration in family-owned heritage industries (e.g., food, fashion), conceptual modeling of algorithmic stewardship, and ethical-foresight frameworks.

Contribution: Bridges AI governance and stewardship ethics, introducing normative dimensions to family-firm digitalization.

Meta-Analytic and Bibliometric Integration

Rationale: The field's rapid growth has led to fragmentation. Systematic consolidation is needed to map



intellectual evolution (Forés et al., 2025; Hurtado González & Herrero-Chacon, 2025).

Research Questions:

- Which theoretical clusters dominate the literature?
- How have SEW, stewardship, and DC perspectives evolved over time?

Suggested Designs: Bibliometric co-citation analysis using VOSviewer, meta-analysis of effect sizes linking digitalization and performance, and topic modeling.

Contribution: Creates a cumulative science of family-business digitalization that quantifies research trajectories and theoretical convergence.

Integrative Outlook

Future research should move beyond dichotomies family versus non-family, tradition versus innovation to examine *hybrid governance ecosystems*. The family enterprise of the future will be a socio-technical organism, blending emotional governance with digital intelligence. Empirical work grounded in the *DLB* framework can thus shift the conversation from descriptive paradoxes to predictive models explaining *how emotional and structural mechanisms jointly produce resilience*.

MANAGERIAL IMPLICATIONS

Translating the Framework into Practice

For family-business leaders, the *Digital–Legacy Balance Framework (DLB)* emphasizes that sustainable transformation depends on balancing emotion (SEW), governance (stewardship), and capability (DCs). Digitalization should thus be managed as a legacy-aligned governance process, not an isolated technology project (El Kaddouri et al., 2025).

Managing Socioemotional Wealth (SEW): From Protection to Reinterpretation

Reframe legacy as renewal: Senior leaders should position digital projects as continuity rather than disruption demonstrating how technology reinforces heritage (Palalić & Smajić, 2022; Wojtyra-Perlejewska, 2025).

Measure emotional alongside financial outcomes: Introduce SEW metrics such as “family-control satisfaction,” “reputation trust,” or “dynastic continuity” within balanced scorecards. These KPIs help leaders ensure that innovation aligns with family values.

Narrate transformation as identity preservation: Firms can use storytelling videos, internal newsletters, or customer communications to frame technological advances as legacy enhancement, fostering employee and family engagement.

Strengthening Stewardship Governance: Institutionalizing Trust

Formalize trust structures: Create *digital councils* or *innovation boards* that include representatives from multiple generations and external advisors. Formal governance preserves relational trust while ensuring accountability (Baldwin et al., 2009; Marion Suiseeya et al., 2021).

Balance autonomy and oversight: Encourage decentralized experimentation but review progress regularly using transparent dashboards. This allows families to maintain control without constraining initiative.

Integrate ethical and data stewardship: Establish “family digital charters” clarifying data privacy, employee welfare, and legacy-protection policies, embedding ethical stewardship into digital governance (Amato et al., 2024).

Building Dynamic Capabilities: Making Legacy Adaptive

Activate the sensing–seizing–transforming cycle.

- Sensing: appoint next generation “digital scouts” to identify emerging technologies.
- Seizing: allocate pilot funding for small-scale trials.
- Transforming: conduct after-action reviews to embed learning in routines (Hevi et al., 2025; Teece, 2007).

Adopt a paced-change strategy.

Gradual implementation mitigates cultural shock and allows intergenerational trust to evolve alongside technological progress.

Prioritize internal learning over external dependency.

Investing in family and non-family employee training creates enduring capability rather than reliance on consultants.

Leveraging the Legacy Reinforcement Loop

Every digital success should be treated as a *heritage milestone*. Leaders can:

- Celebrate successful technology integrations through family events and internal recognition programs.
- Archive transformation milestones annual reports, photos, and media stories to document how the family evolves while remaining authentic (Forés et al., 2025).
- Use these narratives to reinforce purpose and unity, sustaining SEW for future change cycles.

Digital transformation should also be viewed as a continuous organizational learning process rather than a series of isolated technology projects. The Legacy Reinforcement Loop encourages family firms to systematically evaluate each digital initiative and capture the lessons learned through post-project reviews, cross-generational discussions, and internal knowledge-sharing activities. By documenting successful practices and the governance approaches that supported them, organizations can strengthen their dynamic



capabilities while increasing confidence in future digital initiatives. In this way, every successful transformation contributes not only to operational improvement but also to the organization's long-term capacity for continuous renewal.

Managers can further strengthen the Legacy Reinforcement Loop by evaluating both business and family-related outcomes following major digital initiatives. Alongside traditional performance indicators such as productivity, operational efficiency, and financial performance, family firms should also assess employee commitment, family cohesion, stakeholder trust, and readiness for future innovation. Monitoring these complementary outcomes helps ensure that digital transformation reinforces the family's long-term values and governance principles while improving organizational competitiveness. This balanced approach enables family businesses to modernize without compromising the legacy that supports their long-term success.

Managing External Collaboration without Losing Control

Family firms often hesitate to partner with outsiders due to control concerns. *DLB* suggests “controlled openness”:

- Form partnerships through family-owned innovation labs or joint ventures retaining intellectual property.
- Employ advisory contracts rather than full outsourcing to maintain decision authority (Hurtado González & Herrero-Chacon, 2025).
- Treat external collaborators as capability enablers, not replacements for family leadership.

Developing Next-Generation Digital Stewards

- Integrate succession and digitalization: View succession as an opportunity for technological renewal, assigning heirs key roles in digital projects (Jackson & Dunn-Jensen, 2021; Zhang & Wei, 2025).
- Use reverse mentoring: Next-gen members can train seniors on digital tools, while elders mentor on values and networks creating a two-way stewardship channel.
- Establish mentorship metrics: Track participation and joint-decision outcomes to institutionalize learning transfer.

Policy and Advisory Implications

- Consultants and advisors should integrate SEW and stewardship diagnostics into digital-readiness assessments, replacing one-size-fits-all IT models with family-sensitive frameworks (El Kaddouri et al., 2025).
- Educators can design executive programs on “Digital Stewardship and Legacy Management,” combining business analytics with family-governance training.
- Policymakers should reward family SMEs that practice responsible digitalization investing in both innovation and community continuity (Forés et al., 2025).

Table 7. Managerial Actions Derived from the Digital–Legacy Balance Framework

Theoretical Dimension	Key Managerial Action	Expected Outcome
SEW	Reframe legacy as renewal	Emotional legitimacy for change
Stewardship	Institutionalize trust-based governance	Faster, lower-conflict decisions
DCs	Deploy sensing–seizing–transforming routines	Sustainable technological growth
Legacy Loop	Celebrate digital milestones	Stronger family cohesion
Generational Interface	Combine succession and digital strategy	Continuity of leadership

CONCLUSION

This study examined how family businesses navigate digital transformation while preserving the values and legacy that distinguish them from other organizations (Palalić & Smajić, 2022; Wojtyra-Perlejewska, 2025). Drawing upon a systematic review of 87 peer-reviewed studies published between 2010 and 2025, I developed the Digital–Legacy Balance Framework (DLB) to provide an integrated explanation of how socioemotional wealth (SEW), stewardship governance, and dynamic capabilities collectively contribute to digital resilience. The review indicates that successful digital transformation is not determined solely by technological investment or organizational capabilities. Instead, long-term success depends on the extent to which family firms align emotional commitment, governance structures, and adaptive capabilities throughout the transformation process (Hevi et al., 2025; Marion Suiseeya et al., 2021; Teece, 2007).

The study contributes to the literature by moving beyond fragmented theoretical perspectives that have traditionally examined socioemotional wealth, stewardship, and dynamic capabilities independently. The proposed DLB demonstrates that these perspectives are complementary rather than competing and together provide a more comprehensive explanation of digital transformation in family businesses. A distinctive contribution of the framework is the introduction of the Legacy Reinforcement Loop, which suggests that successful digital initiatives strengthen family identity, stewardship commitment, and confidence in future innovation. Rather than viewing digital transformation as a one-time technological project, the framework presents it as a continuous cycle in which successful adaptation reinforces the organizational conditions necessary for future renewal.

The review also extends existing theory by reconceptualizing socioemotional wealth as a dynamic resource that evolves during technological change instead of remaining a static source of resistance. Likewise, stewardship governance is presented as a mechanism that transforms emotional commitment into coordinated organizational action, while dynamic capabilities explain how family firms sense opportunities, seize emerging technologies, and transform existing routines without compromising their long-term identity. By integrating these complementary perspectives, the DLB offers a more balanced explanation of why some family firms successfully modernize while others struggle to adapt.

From a managerial perspective, the findings suggest that family-business leaders should approach digital transformation as a governance and organizational learning process rather than simply a technology implementation project. Digital initiatives are more likely to succeed when they reinforce family values, encourage collaboration across generations, formalize stewardship practices, and strengthen

organizational capabilities over time. In this regard, the Legacy Reinforcement Loop provides managers with a practical roadmap for sustaining continuous digital renewal while preserving the heritage, trust, and relationships that underpin long-term competitiveness.

Although the framework is grounded in a comprehensive systematic review, it remains conceptual and therefore requires empirical validation. Future research should examine the proposed relationships using longitudinal and cross-cultural designs and investigate how the Digital–Legacy Balance Framework performs across different industries, ownership structures, and stages of family-business development. Such research would help refine the framework and further establish its value as an integrated explanation of digital resilience in family enterprises.

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APPENDIXES

Appendix A. PRISMA Flow Summary

Stage	Records	Description
Identification	312	Scopus / WoS / Emerald Insight
Screening	226	Duplicates removed
Eligibility	112	Full-text assessed
Inclusion	87	Final analyzed set

Appendix B. Reasons for Exclusion

Reason	Count	Example
No family-business context	14	Generic SME studies
No digital focus	6	Governance only
Non-peer-reviewed	5	Conference papers
Duplicates	25	Database overlaps

Appendix C. Coding Excerpt

Study	Method	Theory	Region	Digital Focus
(Arzubiaga et al., 2021)	Survey (187 SMEs)	Stewardship	Spain	Drivers of transformation
(Wojtyra-Perlejewska, 2025)	Case study	SEW + DCs	Italy	Reframing SEW
(Hurtado González & Herrero-Chacon, 2025)	Bibliometric	DCs	EU	Mapping field
(Jackson & Dunn-Jensen, 2021)	Interviews	SEW + Generational	Spain	Innovation
(El Kaddouri et al., 2025)	Mixed methods	Stewardship + Resilience	Italy	Governance under crisis

Appendix D. Thematic Clusters

Cluster	Mechanism	Key Studies	Outcome
1 Legacy vs Disruption	Narrative reframing	(El Kaddouri et al., 2025; Wojtyra-Perlejewska, 2025)	Legitimacy for change
2 Stewardship Governance	Trust formalization	(Marion Suiseeya et al., 2021)	Decision stability
3 Generational Shift	Co-learning	(Jackson & Dunn-Jensen, 2021)	Capability renewal
4 Selective Innovation	Emotional filtering	(El Kaddouri et al., 2025; Palalić & Smajić, 2022)	Sustainable digitalization

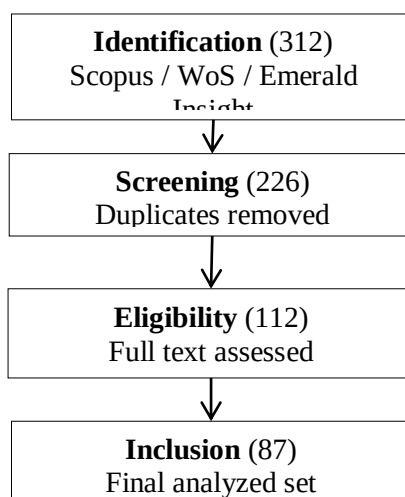


Figure A1. PRISMA Flow of Article Selection