Digitalization of accounting offices: A strategic framework

Digitalización de oficinas contables: Un marco estratégico

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Abstract: This article analyzes digitalization processes (DT) in Brazilian small accounting offices. Digital technologies have motivated innovations in products and services offered by accounting firms and in business models. Adopting a critical and reflective approach grounded in digital business, this study develops a contextualized framework of strategic guidelines for DT in small professional service firms. A qualitative study guided by the Design Science Research (DSR) method was conducted in three iterative stages with business academics, DT experts, and accounting entrepreneurs. Evidence was collected and analyzed in three stages with business academics, DT specialists and accounting office managers. The results identified seven key guidelines: Alignment with firm strategy; risk culture; organizational culture for innovation; organizational restructuring; constant adoption of new digital technologies; change in customer service delivery; and communication with customers. The study contributes to the digitalization literature by organizing its assumptions into strategic guidelines and expanding the scope of previous studies through the business practice approach. The article also contributes to the managerial field, proposing a framework to aid the DT process in small accounting offices, evidencing a direct relationship between the clarity of strategic objectives and the adoption of digital technologies. It is expected that the proposed framework will guide researchers and accounting office managers in the contemporary challenge of DT.

Keywords: Digitalization, digital strategy, accounting offices, Design Science Research, digitalization framework.

Resumen: Este artículo aborda la digitalización (DT) en el contexto de las pequeñas oficinas contables. Las tecnologías digitales han impulsionado innovaciones en los servicios contables, generando nuevos productos, servicios y modelos de negocios. Este artículo adopta un enfoque crítico y reflexivo sobre la DT en el área contable, desarrollando un marco de lineamientos estratégicos para el proceso de DT para pequeñas oficinas contables. Se utilizó un enfoque cualitativo, guiado por la metodología Design Science Research. La evidencia se recopiló y analizó en tres etapas con académicos de negocios, especialistas en DT y gerentes de oficinas contables.

Los resultados identificaron siete lineamientos: Alineación con la estrategia de la empresa; cultura de riesgo; cultura organizacional para la innovación; reestructuración organizacional; adopción constante de nuevas tecnologías digitales; cambio en la prestación del servicio al cliente; y comunicación con los clientes. El artículo contribuye a la literatura sobre digitalización al organizar sus supuestos en lineamientos estratégicos y expandir el alcance de estudios previos a través del enfoque de la práctica empresarial. El artículo también contribuye al campo gerencial, proponiendo un marco para ayudar al proceso de toma de decisiones de DT en pequeñas oficinas contables y evidenciando una relación directa entre la claridad de los objetivos estratégicos y la adopción de tecnologías digitales. Se espera que el esquema propuesto oriente a investigadores y administradores en el desafío contemporáneo de la DT.

Palabras clave: Digitalización, estrategia digital, oficinas contables, Design Science Research, esquema de digitalización.

1. Introduction

The accounting profession is undergoing a profound transformation driven by digital technologies that are reshaping service models, client relationships, and organizational structures. In particular, small and medium-sized enterprise (SME) face mounting pressure to adapt their operations to meet digital demands while maintaining efficiency and strategic alignment. The COVID-19 pandemic further accelerated this process, exposing the fragility of traditional service models and highlighting the urgent need for digital resilience (Foss, 2020; Kargas et al., 2023). Despite widespread recognition of the potential benefits of digitalization (DT), many small firms struggle to move beyond basic tool adoption. Barriers such as limited managerial capacity, lack of digital culture, and difficulty integrating new technologies into existing business models persist (Telukdarie et al., 2023; Pergelova & Yordanova, 2024; Vaillant & Lafuente, 2024).

Considering these digital changes, some researchers argue that we are living in the era of DT. Among them, Warner and Wäger (2019) propose that contemporary transformation is based on the use of digital tools to improve or generate new business models. Lafuente et al. (2024) argue that digitalization has transformed from a disruptive wave impacting select industries into a driver of global economic growth, reshaping entire economies and redefining the way businesses operate. Gobble (2018) synthesizes these perspectives by arguing that DT converts data into value, reshaping organizational activities, processes, competencies, and models to leverage the opportunities and changes brought about by the integration of digital technologies.

But not all firms achieve the same level of DT success. Some barriers and enablers significantly influence the pace and effectiveness of the digitalization process (Escribá-Carda et al., 2024; Jacociunas et al., 2024). While some organizations thrive by leveraging key drivers of change, others struggle to overcome obstacles that hinder their progress. SMEs recognize the potential of digitalization and understand the significant benefits it can bring to their operations (Kargas et al., 2023). However, the time, specialized skills, and financial resources required to develop and implement tailored digital systems often pose substantial barriers (Telukdarie et al., 2023). Existing DT frameworks tend to focus on large enterprises or technology-centric sectors, offering limited guidance to professional service SMEs, such as accounting offices, where DT is both strategic and relational.

Addressing this gap, the present study adopts a critical and reflective lens to investigate how DT unfolds in Small and Medium-sized Enterprises (SMEs) in Brazil. The digitalization process of SMEs in Brazil demonstrates a distinct trajectory within the Latin American context, characterized primarily by a market-driven and financially-led adoption model. While SMEs across the region confront shared structural barriers, Brazil's comparatively advanced digitalization is propelled by its large, competitive domestic market and the disruptive role of its fintech ecosystem. This contrasts with the more policy-led digitalization observed in Colombia, the crisis-driven adoption of tools for survival among Argentine SMEs, or the slower, foundational progress in Andean and Central American nations still grappling with cash dominance. In Latin

American countries, digitalization remains fragmented, focused primarily on establishing an initial online footprint and overcoming infrastructural hurdles.

These structural constraints make DT both urgent and difficult. At the same time, such firms share critical characteristics, knowledge-intensive work, partner-driven governance, client-centric value propositions, with other SMEs in law, architecture and consulting. Consequently, studying DT in this setting not only illuminates the unique challenges of the accounting profession, but also generates insights that are transferable to a wider spectrum SMEs (Warner & Wäger, 2019). Aware that small accounting offices are keeping up with the changes brought about by the digitalization of services, this study aims to provide a critical and reflective perspective on the DT of accounting offices.

The study's main objective is to develop a strategic framework of digitalization guidelines tailored to small accounting offices, synthesizing theoretical insights and empirical evidence. Beyond the national setting, Latin American contingencies shape digitalization dynamics in small professional-service firms; regional heterogeneity in digital ecosystems requires tailored strategies (Ács et al., 2022), and these contingencies condition how and when technology choices translate into capability development and performance outcomes (Lafuente et al., 2024).

Drawing on a qualitative approach guided by the Design Science Research (DSR) method, the research collected data through interviews with academics, DT experts, and accounting entrepreneurs, iteratively refining the framework. To achieve this, a qualitative study guided by the DSR method was conducted. Evidence was collected in three stages through interviews with business academics, DT experts, and accounting office managers. Four main contributions, two theoretical and two managerial, are highlighted. Regarding knowledge on the topic, the article organizes the theoretical assumptions of DT into seven strategic guidelines for the accounting context. Additionally, the article contributes to the existing DT literature by expanding the scope of previous studies through a business practice approach. From a managerial perspective, the article aids decision-making for managers and entrepreneurs in the DT process within small accounting offices. It also highlights to practitioners the direct relationship between the clarity of strategic objectives and the adoption of digital technologies in the DT process.

The article is structured as follows: Section 2 presents the theoretical background and the initial version of the framework. Section 3 describes the DSR methodology and empirical procedures. Section 4 details the results from each evaluation stage and presents the final framework. Section 5 discusses theoretical and managerial implications and proposes avenues for future research.

2. Theoretical Framework

2.1 Digitalization

Among the various changes currently transforming business environments, the integration and strategic use of digital technologies have emerged as a critical challenge for organizations (Telukdarie et al., 2023). Digitalization (DT) is not merely the implementation of digital tools, but rather a profound transformation of how firms create value, deliver services, and organize internally (Vial, 2019; Abhishek et al., 2024).

According to Hinings et al., (2018), DT facilitates the creation of new products, services, and platforms by reconfiguring organizational routines and business models. However, this transformation often demands more than technology alone. It requires the alignment of digital tools with strategic goals and cultural readiness (Pergelova & Yordanova, 2024). For Warner and Wäger (2019), DT is based on the use of tools such as smartphones, data management software, artificial intelligence, cloud computing, blockchain, and the Internet of Things to generate new business models or implement improvements in existing ones.

However, firms must be cautious when adopting these technologies, as it is necessary to manage and measure their results to ultimately create value for the customer. Gobble (2018) argues that firms focused on the occasional use of technologies to solve minor organizational problems can be classified as less digitally mature. In contrast, digitally mature firms integrate these technologies into their entire business operations, yielding more valuable results (Kane et al., 2015). Gobble (2018) emphasizes that digital maturity is not defined by the sporadic use of technology, but by its embeddedness in business models. Similarly, Singh and Hess (2017) argue that DT efforts should go beyond operational improvements, aiming instead at long-term strategic and revenue-driven transformations. In service-intensive settings, digitalization encompasses not only the automation of routine tasks but also the augmentation of expert work, as analytics and AI become embedded in client-facing processes (Holmström et al., 2019; Springet al., 2022). In addition, AI platforms can act as cooperation enablers that build strategic situating capabilities across solution ecosystems, a mechanism increasingly relevant to professional services (Vaillant et al., 2025). This dual role helps explain why accounting offices experience digitalization as a shift in both back-office efficiency and the very nature of advisory interactions. In this sense, DT may be initiated by the technology department but must be embraced by the entire organization (Chanias et al., 2019; Pergelova & Yordanova, 2024).

Singh and Hess (2017) argue that the emergence of DT will require a different mindset from firms compared to previous waves of transformative technologies. The authors further emphasize that DT goes beyond the digitalization of resources, as it is directed toward value creation and revenue generation. Gobble (2018), in turn, argues that digitally minded firms are more agile and, as a result, can better identify and seize emerging opportunities, converting them into revenue. Investments in new technologies are, therefore, accompanied by a cultural transformation of the organization (Pergelova & Yordanova, 2024). Moreover, DT is linked to the organizational mindset and readiness for change. Firms with cultures grounded in creativity, collaboration, and agility are more likely to effectively leverage emerging technologies (Kane et al., 2015). These cultures enable not only the adoption of tools but also the absorption of their strategic implications. A culture based on creativity promotes a spirit of cooperation among people and generates environments more willing to take risks (Kane et al., 2015).

Recent research further demonstrates that successful digitalization hinges on the integration of human judgement with predictive analytics and necessitates organizational agility to rapidly reconfigure service routines (Brau et al., 2023; Humdan et al., 2023). Accordingly, Vial (2019) summarizes DT as a process of continuous adaptation, where technology triggers disruptions and firms must respond through structural, cultural, and strategic realignment. In this view, DT is as much about people and strategy as it is about systems and platforms. The idea of DT is based on the ability of a firm to respond quickly to changes in its operating environment, enabling continuous optimization (Kane et al., 2015; Matt et al., 2015). Hess et al. (2016) argue that this speed is a necessary condition for DT to occur. However, it is essential to understand the unique characteristics of each sector and firm to apply the right strategies at the appropriate time, thereby mitigating the risks of strategic decisions that could lead to talent isolation and the depersonalization of organizational activities (Escribá-Carda et al., 2024). Given this, Hess et al. (2016) argue that the core issue is no longer the need to consider DT as a priority in planning but rather how to use it to turn it into a competitive advantage.

For small accounting offices, digitalization implies a decisive pivot from compliance-centred transaction processing toward a data-driven advisory model that co-creates value with clients. In Vial's (2019) terms, it is the migration from mere digitisation of records to a full 'value-creation pathway' in which analytics, cloud platforms and AI transform information into strategic insight, thereby heightening perceived client value and reinforcing professional legitimacy, demanding for consistent DT strategies. Thus, the following section delves into the key components of DT strategies.

2.2 Digitalization Strategies

In this study, digital business strategy is adopted as an integrative lens. Digital technologies create value when orchestrated with market positioning, capability development, and service-delivery design. This perspective links small-firm strategy to technology choices and clarifies how digitalization reconfigures resources and routines in professional-

service SMEs (Kohtamäki et al., 2020; Lafuente et al., 2023). Thus, developing a DT strategy requires more than adopting new tools. It demands the alignment of technology initiatives with the firm's core strategic vision. Matt et al. (2015) define a DT strategy as a coordinated and integrative approach that transforms products, processes, and structures using digital technologies. Critically, these strategies should not operate in isolation but must be embedded within the broader organizational strategy (Gupta, 2018). As DT strategic approaches take a broad perspective and are grounded in specific guidelines for their creation and implementation. Matt et al. (2015) emphasize the importance of having a DT strategy as a central concept for the firm, coordinating and prioritizing these changes in an integrated manner, focusing on transforming products, processes, and even organizational structure through new technologies.

The same authors stress that since these strategies intersect with other strategies, they must be well-aligned. Indeed, firms that have achieved good results in the DT process are those that did not consider digital strategy separately from the overall business strategy but rather integrated digital thinking into their strategy (Gupta, 2018). Chanias et al., (2019) refer to pre-digital firms as traditional firms where digital changes impact their operations. The authors argue that pre-digital firms experience more intense impacts. Therefore, they reshape their reality, altering their business model, organizational structure, processes, and products as they adopt digital technologies. Collisions between traditional and digital firms are now common in different industries, such as finance, real estate, media, and healthcare (Iansiti & Lakhani, 2020).

A DT strategy is designed with a broader scope, emphasizing the transformation of products, processes, and organizational structures driven by the integration of new technologies (Matt et al., 2015; Fernandes & Verschoore, 2020). However, Kane et al. (2015) highlight that firms with low digital maturity often misunderstand DT as simply improving customer interfaces. In contrast, mature firms pursue DT as a continuous learning process that reshapes business models from the inside out. This distorted view is evident in the study by Kane et al. (2015), as 80% of respondents from firms with low digital maturity stated that their digital strategies were based on improving customer experiences.

As a result of their research, Matt et al. (2015) propose four main dimensions for developing a DT strategy. The first dimension is the use of technologies and the firm's attitude toward adopting and exploiting existing technologies (Matt et al., 2015; Verina & Titko, 2019). In this regard, Sisaye and Birnberg (2010) argue that technological innovations are often demand-driven and limited by implementation costs. This leads many firms to adopt a follower strategy, using only innovations that have already proven successful. The speed and pace of adopting new tools vary among firms. However, the risk lies in a firm's inability to keep up with those setting the pace of this evolution (Kane et al., 2015; Lafuente et al., 2018). To address this, firms adapt their risk mindset and make their culture less averse to failure. Believing that failure is almost a prerequisite for success, the authors emphasize that the costs of inaction almost always exceed the costs of action (Kane et al., 2015). In addition, a recent study by Angelopoulos et al. (2023) emphasises that digitalization is fundamentally a governance problem, characterised by significant agency shifts. The authors argue that success depends less on the technologies themselves and more on reconfiguring decision-making authority.

The second dimension proposed by Matt et al. (2015) is that the use of technologies can generate a change in the value creation of products and services. Depending on the distance between the firm's core activity and new digital activities, it may be possible to enhance or expand the firm's current portfolio. However, new competencies are required when dealing with an approach previously unknown to the firm, as well as aligning with a potential new market or customers. The use of these new technological tools, according to Berman (2012), can reshape a firm's products and services, as well as customer engagement, but the author raises the challenge of how to monetize this new value creation.

The third dimension proposed by Matt et al. (2015) is the effect that the two aforementioned items have on the firm's structure. The researchers highlight the need for changes in the organizational structure to accommodate these new products and services. It may be possible to absorb these new opportunities within the existing structure or not, depending on the significance of the changes (Berman, 2012; Hess et al., 2016). The fourth dimension involves analyzing the financial

aspects of the firm, especially in cases where the urgency for reduce costs is greater (Goldfarb & Tucker, 2019). Matt et al. (2015) emphasize the need for firms to identify the right time for their DT and explore existing opportunities.

This alignment is particularly crucial in firms that were not born digital. Chanias et al. (2019) point out that in pre-digital organizations, digital initiatives often clash with established processes and mindsets, leading to tensions that must be managed strategically. Iansiti and Lakhani (2020) describe such firms as being in a constant negotiation between legacy systems and the demands of platform-based, data-driven business models. Besides that, Lafuente and Sallan (2024) posit that for professional-service SMEs, successful digital orchestration involves transitioning from discrete tools to integrated solutions powered by IoT and AI. These technologies enable new capabilities in monitoring and integration, which in turn necessitates and explains the central importance of adapting client communication and service-delivery processes. Complementarily, recent evidence indicates that digital service innovation strategies clarify the pathway from technology adoption to SME performance via co-innovation with clients, particularly salient for professional services (Mora-Esquivel & Leiva, 2025)

Strategic responses from firms using technologies generate new paths for value creation in products and services (Vial, 2019). To achieve this, it is necessary to implement structural changes and overcome barriers that hinder transformation efforts (Pergelova & Yordanova, 2024). Pergelova and Yordanova (2024) further argue that DT strategies are as much about talent and organizational learning as they are about tools. The human element, resistance to change, digital fluency, leadership, can accelerate or block strategic progress. After these changes, their negative or positive impacts emerge, varying according to the firm's industry and operating environment (Bayon et al., 2016; Vial, 2019). In this regard, Matt et al. (2015) conclude their research by questioning how much of a firm's core business should be digitized and the extent of the difference in DT between business-to-business and business-to-consumer models. Advancing on these aspects, Gupta's (2018) study suggests that options for business transformation should be varied, flexible, and endless, acknowledging that there is no magic solution but rather a systematic approach to DT. Ultimately, a DT strategy must be flexible, iterative, and sensitive to both internal culture and external pressures (Vial, 2019).

Rather than being a linear plan, it is an evolving framework shaped by experimentation, feedback, and organizational resilience. In this sense, it can be argued that DT strategy is a dynamic process, with a logic of doing and learning, continuously evolving without a predictable end (Kane et al., 2015). This becomes more evident within resource-constrained accounting SMEs, which demands an iterative, minimum-viable digital strategy - combining low-cost experimentation with explicit risk-governance routines. It becomes more evident within resource-constrained accounting SMEs, which demands an iterative, minimum-viable digital strategy, combining low-cost experimentation with explicit risk-governance routines. In this sense, the DT strategies oriented by F0 allows owners to reconcile cost discipline, professional credibility and technological renewal. This approach operationalises Matt et al. (2015) call for dynamic portfolio alignment and echoes Kane et al. (2015) by framing DT as a series of small, reversible bets that gradually reconfigure capabilities and service delivery, which we detailed in next section.

2.3 Framework (F0) of Strategic Guidelines for DT

Based on the theoretical assumptions discussed and guided by the article's objective, an initial version of the guidance artifact for accounting offices in the DT process was proposed, synthesized here as Framework Zero (F0). The framework Zero (F0) consists of three strategic guidelines: investment in digital technologies, culture and organizational restructuring, and changes in service delivery to clients (Table 1). The initial guidelines operationalise a digital business strategy for small professional-service firms by pairing strategic intent and risk governance with cultural enablers and service-delivery redesign. This structure aligns with emerging evidence positioning digital service-innovation strategies as a key pathway for SMEs to translate technology into performance (Mora-Esquivel & Leiva, 2025).

The first guideline is investment in digital technologies. At this stage, it is suggested that the firm familiarize itself with available digital technologies, as well as their acquisition and operational costs, to choose which technologies to invest in for its business (Kane et al., 2015; Matt et al., 2015; Verina & Titko, 2019). This choice is based on technologies that can be managed and measured so that, ultimately, this investment can create value for the customer and improve firm performance (Hess et al., 2016). The DT is centered on the use of digital technologies to improve services or create new ones (Hess et al., 2016; Hinings et al., 2018; Matt et al., 2015; Singh & Hess, 2017; Verina & Titko, 2019; Warner & Wäger, 2019). This choice may involve the IT department but must align with all firm capabilities and be monitored at the organizational level (Chanias et al., 2019; Hess et al., 2016, Konopik et al., 2022). It is suggested that firms avoid using these technologies to solve minor problems and instead seek a comprehensive understanding of these tools. By leveraging the potential benefits of a specific technology and leveraging their understanding of the business, firms can adopt DT in an integrated manner (Gobble, 2018; Hess et al., 2016; Kane et al., 2015).

Table 1: Framework Zero (F0) of Strategic Guidelines for DT

Strategic Guidelines	Description
Investment in digital technologies	Definition of operational and financial investment, accepting the risk of using digital tools to transform the business as a whole and improve its services.
Culture and organizational restructuring	Digital culture and reorganization of structure, processes, teams, and services in response to the impacts of new digital technologies.
Changes in service delivery to clients	Impact of digital technologies on services, adding value to clients and results to the firm.

The second strategic guideline addresses culture and organizational restructuring. Firms with active response capabilities tend to be better equipped to adapt to selected technologies quickly, fostering flexibility for changes in people, organizational structure, and processes within the firm (Pergelova & Yordanova, 2024). Many available digital technologies can transform a firm due to the impact they generate on processes and teams, necessitating organizational restructuring (Chanias et al., 2019; Kane et al., 2015; Konopik et al., 2022). With significant changes, there may be operations requiring multidisciplinary restructuring due to potential integration of operations or skills that need to be developed by participating teams (Berman, 2012; Hess et al., 2016; Matt et al., 2015). Given these restructurings, it is necessary to have an organizational culture based on collaboration within the firm (Pergelova & Yordanova, 2024). For each tool selected, the team must have creativity, speed, and a spirit of cooperation to use it in the best possible way (Gobble, 2018; Kane et al., 2015). Investments in DT must be matched by a commitment to cultural change, led by prepared leadership (Gobble, 2018; Kane et al., 2015).

Finally, the third guideline points to changes in service delivery to clients. The use of digital technologies is premised on creating added value to the products and services offered. It is proposed to analyze changes in the perceived quality of the service provided or through cost reduction due to increased productivity (Singh & Hess, 2017). To achieve this, leaders must combine the firm's existing capabilities with those offered by new digital technologies (Gupta, 2018). Consequently, the three preliminary guidelines proposed here both mirror the lived reality of Brazilian accounting offices and provide a design-science artefact that can be instantiated, evaluated and iteratively refined in other knowledge-intensive micro-enterprises, such as law, architecture, and consulting, that face analogous institutional and resource constraints (Warner & Wäger, 2019). The Framework (F0) of strategic guidelines for DT constitutes the initial guide for qualitative analysis of empirical evidence. Methodological choices and evidence collection and analysis procedures are detailed in the next section.

3. Methodology

To conduct this research on strategic guidelines for DT in small accounting offices and given the proposal to configure a framework, the Design Science Research (DSR) method was chosen. The research problem was addressed through exploratory research, and a qualitative approach was selected due to the complexity of the topics covered (Drisko & Maschi, 2016).

The DSR is a pragmatic method that, according to Dresch et al. (2015), aims to refine the analyzed theory by seeking solutions to a specific problem or a class of problems. This objective is achieved by constructing an artifact or prescription intended to bridge the gap between theory and practice. Manson (2006, p. 161) defines DSR as "a process of using knowledge to design and create useful artefacts, and then using various rigorous methods to analyze why, or why not, a particular artefact is effective." Given this, the procedures outlined by Manson (2006) were followed, configured in the following order: a) problem awareness and literature review, b) suggestion, c) development, d) evaluation, and e) conclusion. This iterative approach allowed the progressive refinement of a strategic framework to guide DT in small accounting offices.

Following the steps proposed by DSR, problem awareness and literature review were conducted as the starting point of this study (Freitas et al. 2019). From this stage, Framework Zero (F0) was suggested based on the theoretical assumptions discussed. The subsequent stages of development and evaluation of the artifact (F0) were carried out through individual interviews. Before the interviews, the script underwent face and content validation with an expert on the topic. The first interviews were conducted with academics studying the topic, followed by DT experts, and finally with accounting entrepreneurs who have already initiated their DT process in their offices.

This study was conducted in Brazil, where over 75,000 accounting offices are registered, most of them classified as small or medium-sized enterprises. This national context presents high variability in digital maturity, strong regulatory requirements, and low average investment in innovation, which makes it a fertile environment for examining DT in resource-constrained professional service firms. Data were collected through semi-structured interviews with 14 informants, divided into three stakeholder groups: Group 1) Academics (E1–E5): Professors with PhDs in accounting, economics, or administration, all active in Brazilian postgraduate programs. Group 2) DT Experts (E6–E9): Professionals with experience in DT, business consulting, or IT leadership. All had previously advised or implemented DT in SMEs. Group 3) Accounting Entrepreneurs (E10–E14): Firm owners or managers currently leading DT initiatives in small accounting offices in Brazil. One participant was a lawyer leading a tax planning firm.

Interviews lasted between 31 and 71 minutes, and participants were selected based on relevance and depth of experience in their respective domains. While demographic information, such as age and gender, was not systematically collected, selection emphasized diversity in perspective and practical knowledge. The interviews were transcribed and analyzed using abductive content analysis (Drisko & Maschi, 2016), combining theoretical codes with emergent themes. This analytical process informed iterative adjustments to the artifact, culminating in the final strategic framework presented in Section 4. Table 2 lists the participants in each group, their profiles, and the duration of the interviews.

At each stage, the artifact version was adjusted based on the interviewees' feedback, leading to an improved framework. The improved frameworks were submitted to the group participants for evaluation. During the interviews, perceptions, criticisms, and suggestions were collected, which were then analyzed using qualitative content analysis (Drisko & Maschi, 2016). The analysis adopted an abductive approach (Dubois & Gadde, 2002), combining categories organized by theoretical assumptions with emerging categories from the empirical field. In conclusion, the final version of the artifact, called Framework Three 03, was achieved after progressing through three developmental stages.

Table 2: Interview Groups

Interview for Script Validation						
Subject	**Sex**	**Age range**	**Highest degree**	**Years of experience**	**Role/Firm type**	**Duration**
Zero	Male	50-60	Master's Degree in Administration	More than 30 years	Accountant, and Professor of Accounting	00:20
Group 1: Development and Evaluation of Framework Zero (F0)						
Interviews with Academics						
Subject	Sex	Age range	Highest degree	Years of experience	Role/Firm type	Duration
E1	Male	40-50	PhD in Administration	More than 20 years	Manager and Professor and Researcher in Postgraduate Studies	01:11
E2	Male	50-60	PhD in Economics	More than 30 years	Economist and Professor and Researcher in Postgraduate Studies	00:35
E3	Male	50-60	PhD in Administration	More than 30 years	Accountant and Professor and Researcher in Postgraduate Studies	00:54
E4	Female	40-50	PhD in Administration	More than 20 years	Accountant and Professor and Researcher in Postgraduate Studies	00:39
E5	Female	40-50	PhD in Administration	More than 20 years	Accountant and Associate Researcher in Postgraduate Studies	01:09
Group 2: Development and Evaluation of Framework One (F01)						
Interviews with DT Experts						
Subject	**Sex**	**Age range**	**Highest degree**	**Years of experience**	**Role/Firm type**	**Duration**
E6	Male	30-40	Master in Administration	20 years of exerience in DT Project management	Manager, Writer, Speaker, and Advisor in Management and Technology Projects	00:54
E7	Male	40-50	Master in Administration	30 years of exerience in DT Project management	Engineer, Mentor, Speaker, Advisor, and Consultant in DT	00:47
E8	Male	30-40	MBA in Administration	20 years of exerience in DT Project management	Engineer, Entrepreneur, and Advisor in Change Management and Information Technology	00:55
E9	Male	50-60	PhD in Administration	More than 30 years of exerience in DT Project management	Manager, Entrepreneur, and Speaker on Technology and New Business Models	00:40
Group 3: Development and Evaluation of Framework Two (F02)						
Interviews with Accounting Entrepreneurs						
Subject	**Sex**	**Age range**	**Highest degree**	**Years of experience**	**Role/Firm type**	**Duration**
E10	Male	50-60	Master in Accounting	More than 30 years	Accountant, Entrepreneur, and Manager of an Accounting and Business Advisory Office	00:37
E11	Male	40-50	Degree in Law and Administration	More than 20 years	Lawyer, Entrepreneur, and Manager of a Law and Tax Planning Firm.	00:31
E12	Male	40-50	MBA in Business Management	More than 20 years	Accountant, Entrepreneur, and Manager of an Accounting and Business Advisory Office	00:48
E13	Male	40-50	Degree in Accounting	More than 20 years	Accountant, Entrepreneur, and Manager of an Accounting, Consulting, and Training Firm	01:03
E14	Male	40-50	Degree in Accounting	More than 20 years	Accountant, Entrepreneur, and Manager of an Accounting and Business Advisory Office	00:36

4. Results

This study employed an abductive approach to translate raw qualitative statements into design-oriented guidelines. The process involved three steps: a) Open Coding: Initial coding surfaced recurrent practitioner concerns, such as client communication, risk management, and strategic fit; b) Focused Coding: These concerns were synthesized into theoretically anchored categories (distinguishing risk culture from innovation culture, and organizational restructuring from service-delivery change); and c) Design Logic Formulation: Categories were translated into actionable guidelines through a transparent rule-based system. If a concept (X) is prevalent across respondents, aligns with an established theoretical stream (Y), and is actionable as a managerial practice, then it is formulated as a distinct guideline. This rigorous procedure ensured a systematic traceability from the empirical evidence to the final framework.

4.1 Development and Evaluation of Framework Zero (F0) with Academics

At this stage of the research, semi-structured in-depth interviews were conducted with five academics and professors with expertise in areas that add value to the DT debate. Since the study aims to propose an artifact, the interview began by discussing the usefulness of such a proposal in achieving the main objective. The positive feedback from the interviewees was unanimous. Interviewee E1 emphasized its relevance, noting that small accounting offices often consist of accountants who are proficient in accounting but lack expertise in management. However, interviewee E5 emphasized that for better applicability of the artifact, the office must understand its business, as the complexity of DT requires not focusing solely on the use of technologies. These findings align with the studies by Kane et al. (2015), who argue that leaders need to add digital fluency to their skill set.

The different opportunities of DT were pointed out by interviewee E3. However, the interviewees believe that DT is currently a reactive action by entrepreneurs, who do not choose digitalization voluntarily but out of necessity. This aspect resonates with the propositions of Hess et al. (2016), who argue that firms must embrace DT to use it as a competitive advantage. The concern for the artifact's applicability to the context of small accounting offices was addressed by interviewee E3. He highlighted that the communication process with clients is a key distinction between online accounting, which engages with clients virtually and often in a limited capacity, and traditional offices, which offer in-person, personalized interactions. These findings indicate the absence of an aspect that would bring greater completeness to the artifact: the dimension of communication. Interviewee E3 argued that it is through communication that clients perceive the value of small accounting offices. This aligns with the findings of Verina and Titko (2019) regarding the importance of client relationships and the value perceived by them in the DT process.

Interviewee E4, in turn, argued that the proposed artifact is adherent to different existing business models, not limited to online or traditional offices. "Many people need another value proposition, and will this business model not undergo digitalization? Of course, it will!" (E4). On the other hand, interviewee E2 noted that the artifact will have greater receptivity in offices with a mature management profile. Complementing this, interviewee E5 highlighted the existence of different profiles of accounting offices shaped by the technology used. Some online accounting offices began by leveraging technology to automate processes, serve clients efficiently, and achieve economies of scale, while traditional accounting firms, as noted by Interviewee E5, are expected to undergo more significant DT in the future. These findings complement the proposition by Gupta (2018) that the business model reflects the firm's strategies and the operational implications of DT.

In this sense, risk acceptance was an aspect cited from different perspectives by the interviewees. Interviewee E3 mentioned that risk management has been a topic in management discussions, especially the risks inherent to DT. He listed five risks of the DT process: "information security, the risk of a failed investment, choosing good partners, employees not being well-trained to operate in a digital model, losing clients, and various business risks" (E3). In summary, the empirical evidence presented by the interviewees and supported by the theories motivated the refinement of the initial artifact. The

advances in this stage are summarized in Table 3, titled Framework One (F01) of Strategic Guidelines for DT. Based on these changes, guidelines were added, and information was adjusted for the next stage of artifact development and evaluation.

Table 3: Framework One (F01) of Strategic Guidelines for DT

Strategic Guidelines	Description
Risk Culture	Leaders aware of the inherent risks of digital, the adopted strategy, and the impacts on client and team acceptance.
Culture and Organizational Restructuring	Digital culture and reorganization of structure, processes, teams, and services in response to the impacts of new digital technologies.
Investment in Digital Technologies	Definition of operational and financial investment in digital tools to transform the business as a whole and improve its services.
Changes in Service Delivery to Clients	Impact of digital technologies on services, adding value to clients and results to the firm.
Communication with Clients	The firm's defined mode of operation impacts the communication process with clients.

The first stage of artifact development, involving five academic experts, confirmed the relevance of a structured framework for guiding DT in small accounting offices. Interviewees highlighted that although technical accounting knowledge is prevalent in these firms, managerial capacity for strategic decision-making around digitalization remains limited. Interviewees E1 and E5 emphasized that successful adoption of DT requires not only familiarity with technology, but also a clear understanding of the firm's business model. Interviewee E3 further underscored the importance of client communication, noting that the value perceived by clients is strongly mediated by how digital changes are presented and delivered.

The academics unanimously validated the need for a DT-specific artefact in accounting SMEs but insisted on clarifying client-communication and risk culture, points that earlier literature on professional-service DT (Verina & Titko 2019; Vial 2019) treats only tangentially. These insights led to a key refinement in the artifact: the addition of a guideline specifically addressing communication with clients. Combined with existing themes on risk, restructuring, and service delivery, this new component offered a more holistic view of DT challenges in the accounting sector. Their suggestions therefore triggered the shift from Framework Zero to Framework One, adding "Risk Culture" and "Client Communication" as discrete strategic dimensions, in line with Kane et al. (2015), who frame digital maturity as simultaneously technological and relational, which expanded the initial artifact (F0) by integrating these dimensions, expanding to five strategic guidelines instead of three. This result supports Vial's (2019) argument that digitalization reframes value creation. It is further consonant with Spring et al. (2022) research on managing the client interface in AI-enabled service work, while also aligning with the governance-oriented view that regulatory exposure shapes technology choices in small professional firms.

4.2 Development and Evaluation of Framework One (F01) with DT Experts

In this second stage, semi-structured in-depth interviews were conducted with four DT experts. Given the research context, respondents were selected based on their connection to the accounting office universe. Overall, all respondents found the proposed artifact interesting for the DT process, but with some issues. Interviewee E7 believes that it is always valuable to use pre-designed artifacts and tools, avoiding the effort of starting a DT from scratch. After all, this provides a time-saving adaptation to the business itself and reduces risks already identified in other studies. Interviewees E8 and E9 agree with the sense of utility of the artifact and emphasize that DT is not just a strategic decision but a necessity. The evidence reinforces the propositions of Hess et al. (2016), who argue that the core issue lies in how to use DT and appropriate it to turn it into a competitive advantage. The competitive advantage of DT is seen by interviewee E8 as a matter

of survival. In the respondent's words: "I don't see it as, 'Oh no, we're not going to do DT,' because I think those who don't will end up closing; I don't see a future for those who don't go through this process" (E8). Meanwhile, the lack of knowledge about DT is highlighted by interviewee E6, who is familiar with the accounting context. He believes that the artifact will be useful for approximately 20% of small accounting offices. For the respondent, "the reality of 80% of the 75,000 registered accounting offices in Brazil is that they are very small. These very small firms, the owner is not an entrepreneur; they are the employee of their own office" (E6).

Having an artifact to support decision-making is seen by interviewee E8 to identify risks. However, he also believes that where there are risks, there are also opportunities. These opportunities had already been mentioned by Gobble (2018), who argued that digitally minded firms are more agile and, as a result, can better identify and seize DT opportunities. The risk guideline is considered one of the most important by all participants in this stage. Interviewee E7, for example, argues that the entrepreneur should take risks in a planned manner: "[...] Or you will be forced to take risks under conditions you may not have anticipated, not thought of before [...] it's better to promote your own exit from comfort." Interviewee E6 believes that the entrepreneur can minimize unnecessary risks to avoid risking what they cannot afford.

When questioned about the strategic guideline of organizational restructuring, interviewee E7 pointed out that it is necessary to have managers capable of leading their teams and guiding the DT change. Interviewee E9, in turn, emphasized the importance of creating teams oriented toward DT rather than process. These statements reinforce the findings of Pergelova and Yordanova (2024) that investments in DT are supported by a cultural transformation of the firm and its leadership. Regarding the strategic guideline of investments in digital technologies, interviewee E9 considers it important if approached as a constant adoption of new digital technologies. The investment in technology is not seen as having a significant financial impact by interviewees E7 and E8, who argue that tools are more accessible today. However, interviewee E7 emphasized the need-to-know which technology to use: "There are many things available; which one will help them develop the path?" In this sense, interviewee E8 noted: "The problem today is not the cost of technology but the cost of implementing technology, which involves the risk of culture."

The guideline of changes in service delivery was deemed essential by interviewee E9. In the respondent's words: "This implies a radical change in how you deliver service to your client, in how you add value." Interviewee E8 reinforced this position, stating that the client must perceive the benefit of DT, whether in cost or process improvement. Both also agreed on the strategic guideline of communication with clients. Interviewee E7 highlighted that all parties involved must speak the same language. Interviewee E8 complemented this by noting that the firm's business model defines the methods of communication with clients. These findings contribute to the study by Vial (2019). According to this author, the consequences of impacts, whether negative or positive, may vary depending on the firm's industry and operating environment. Therefore, interviewee E9 argued that it is necessary to know who the accounting office's client is and focus DT on them, acknowledging that it will not serve everyone.

A core refinement emerging from this phase is the explicit distinction between *risk culture* and *organizational culture for innovation*. *Risk culture* denotes the firm's collective willingness to face uncertainty, accept potential failure as part of experimentation, and manage exposure through deliberate governance routines; *innovation culture* refers to the values, behaviors, and leadership practices that stimulate creativity, collaboration, and knowledge sharing to sustain change over time. Because these cultural dimensions govern different decision logics and evolve at different speeds in SMEs, both were retained as separate guidelines rather than collapsed into a single construct. Additionally, experts stressed that DT should not be understood as a one-off investment but as a continuous adoption of new technologies. To streamline reporting and avoid repetition across iterations, themes acknowledged in F0, such as client communication, are not re-enumerated here unless they materially changed the artefact. The advances in this stage are summarized in Table 4 (F02).

Table 4: Framework Two (F02) of Strategic Guidelines for DT

Strategic Guidelines	Description
Risk Culture	Identification and planning of risks and opportunities inherent to digital and the strategy adopted by the entrepreneur.
Organizational Culture for Innovation	Development of an organizational culture to manage the transformations arising from the integration of digital technologies into operations.
Organizational Restructuring	Reorganization of structure, processes, teams, and services in response to the impacts of new digital technologies.
Adoption of New Digital Technologies	Definition of the adoption of digital technologies applicable to the firm's strategy and their implementation impacts.
Changes in Service Delivery to Clients	Impact of digital technologies on services, adding value to clients and results to the firm.
Communication with Clients	The firm's defined mode of operation focused on the communication process with target clients.

In the second evaluation phase, DT experts reviewed the revised artifact (F01). While acknowledging its utility, they stressed the importance of explicitly addressing organizational culture for innovation and leadership readiness. Interviewee E7 noted that DT must be led by individuals capable of managing transitions, not just technologies. Interviewee E8 argued that without cultural transformation, investments in tools may fail to deliver value.

DT experts endorsed the artefact's usefulness, stressing that technological cost is no longer the primary barrier; rather, cultural readiness is the critical bottleneck. This consensus aligns with the dynamic capabilities literature (Warner & Wäger, 2019), reinforces the people-centric view of talent and culture in SME digitalization (Pergelova & Yordanova, 2024), and corroborates evidence that transformation is propelled by agency shifts rather than technological adoption alone (Angelopoulos et al., 2023). Their input led to splitting the cultural dimension into two distinct guidelines, *Organizational Culture for Innovation* and *Organizational Restructuring*, in Framework Two (F02), emphasising that mindset change and structural change progress at different speeds in SMEs. Together, these changes codify the expert consensus that lasting digitalization depends on orchestrating mindset, structure, and continuous tech uptake, not merely acquiring isolated tools.

4.3 Development and Evaluation of Framework Two (F02) with Accounting Entrepreneurs

In the final stage, five accounting entrepreneurs assessed the framework based on their real-world experience. All participants recognized the artifact's relevance, particularly its practical orientation. However, some questioned the distinct value of the "risk culture" dimension, considering it already embedded in the accounting profession. Nonetheless, due to its theoretical significance, this guideline was retained. Interviewee E11 explained: "There is no ready-made path; what exists today in the market is trial and error." The experiences shared by the interviewees can be related to the "doing and learning" approach proposed by Kane et al. (2015).

Addressing the strategic guideline of organizational culture for innovation, interviewee E13 reported that a digital technology acquired by their office was underutilized because the team was not prepared to provide the required information. This account is similar to examples provided by Pergelova and Yordanova (2024) about firms that focused on investing in technologies without investing in changing the mindset of their teams. The same importance of the guideline is perceived by interviewee E11. However, for them, the cultural difficulties of DT originate in the culture of the partners themselves, not the teams. Interviewee E11 reported creating an innovation committee in their firm because "based on the pains we have, people find solutions." Interviewee E10 highlighted that the practices of pricing accounting services reflect the culture of in-person service and ignore digital possibilities.

When discussing the adoption of new technologies, Interviewee E10 emphasized the necessity of a detailed financial investment analysis. Interviewee E12 complemented this by stating that the investment is not just financial but also in time for implementing digital technologies. Interviewees E11 and E14 agreed on the importance of technologies, provided they bring benefits to clients. In the words of interviewee E11: "If we do the work by hand, on a typewriter, or on a modern system, it makes no difference to them, but the product of this work, which affects their lives, that's what they notice." These findings advance the DT literature (Gobble, 2018) by establishing a connection between the implementation of digital strategies in small accounting offices and the results perceived by their clients.

Regarding the guideline of adopting digital technologies, interviewee E10 argued that the accounting entrepreneur must be attentive and constantly monitor emerging technologies. The accounts also reinforce studies that the adoption of digital technologies enables continuous optimization of processes and quick responses to environmental contingencies (Kane et al., 2015; Matt et al. 2015). However, according to interviewee E14, decisions on adopting digital technologies are connected to the guideline of changing the delivery of accounting services to clients. In this sense, interviewee E12 stated: "The focus is much more on the client than on processes." Another interviewee shared the same view: "I consider it very important because service delivery to clients is likely one of the biggest market demands today; there is a deficient delivery, an insufficient delivery to clients" (E10). Overall, the accounting entrepreneur respondents believe that their clients are favorable to the adoption of digital technologies and that changes in service delivery can bring opportunities for increased revenue and also operational margins.

The strategic guideline of communication with clients was considered by interviewee E11 as a basic premise of services. "Our first obligation is clear communication with the client; their needs come first." They argued that the technological tools used by the firm have improved the speed of service. Interviewee E12 also prioritized the needs of their clients and, therefore, argued that DT is linked to the client, their preferences, and forms of interaction. The effects on client relationships have been previously explored by Verina and Titko (2019) in terms of perceived value and by Berman (2012) in relation to interaction, client engagement and open collaboration.

When questioned about the set of guidelines, the interviewees believed that all should be maintained, except for the risk culture guideline, which, according to Interviewees E11 and E13, is already inherently integrated into the accountant's professional practice and the nature of the business. In a similar vein, interviewee E10 suggested changing the terminology: "I would change the terminology of risk, perhaps to effects of a transition." However, due to the importance of this guideline in the researched literature and in the development and evaluation processes with academics and DT experts, it was decided to maintain the guideline with appropriate adjustments.

Based on their insights, the interviewees were asked to identify the greatest challenges accounting entrepreneurs face when making DT decisions. Unanimously, although in different words, they responded that it lies in the mindset of the business owner and the culture of the accountant. At the end of the interviews, the respondents emphasized the importance of aligning DT with the firm's strategy, market positioning, and clarity about the target client. As an illustration, interviewee E14 stated: "Technologies must align with your client profile and your firm's strategy." With the empirical contributions of accounting entrepreneurs, the strategic guidelines for DT were developed and evaluated, and a final artifact proposal, named Framework Three (F03), was elaborated, as shown in Table 5. This is the final version of the artifact after development and evaluation through DSR.

The Framework Three (F03) of Strategic Guidelines for DT is the final artifact of the study, initially developed based on theoretical contributions and refined at each interview stage. To prevent a tool-first approach, respondents emphasized that any digital solution must be explicitly aligned with firm strategy. This finding was incorporated into the final framework (F03), which includes explicit strategic alignment as a core guideline. Interview data also revealed that client-perceived value is a critical determinant of both market adoption and a firm's pricing power. These findings informed the seven strategic guidelines that constitute the final version of the framework. The resulting seven strategic guidelines are detailed in Table 5 (F03).

Table 5: Framework Three (F03) of Strategic Guidelines for DT

Strategic Guidelines	Description
Alignment with Firm Strategy	Clear definition of the firm's strategy before starting the DT process to ensure changes enhance organizational objectives.
Risk Culture	Identification and planning of risks and transition burdens, analyzing the positive and negative impacts inherent to digital and the strategy adopted by the entrepreneur.
Organizational Culture for Innovation	Development of an organizational culture to manage the transformations arising from the integration of digital technologies into operations.
Organizational Restructuring	Reorganization of structure, processes, teams, and services in response to the impacts of new digital technologies, as well as restructuring of pricing and financial aspects of the firm.
Continuous Adoption of New Digital Technologies	Definition of the adoption of digital technologies applicable to the firm's strategy, analysis of their implementation impacts, and constant monitoring of new technologies.
Changes in Service Delivery to Clients	Impact of digital technologies on services, adding value to clients and results to the firm.
Communication with Clients	The firm's defined mode of operation focused on the communication process with target clients.

The final outcome was the construction of Framework Three (F03), which integrates seven strategic guidelines: (1) Alignment with Firm Strategy; (2) Risk Culture; (3) Organizational Culture for Innovation; (4) Organizational Restructuring; (5) Continuous Adoption of New Technologies; (6) Changes in Service Delivery; and (7) Communication with Clients. This final artifact reflects a synthesis of theoretical foundations and empirical validation from multiple stakeholder perspectives.

The entrepreneurs revealed that client-perceived value, not back-office efficiency, is the primary driver of adoption. This finding aligns with recent service-sector studies (Brau et al., 2023; Humdan et al., 2023). Furthermore, the entrepreneurs insisted that strategic alignment be made explicit to circumvent tool-first decision-making. In direct response, the framework was refined by formally establishing Strategic Alignment as a seventh guideline within the finalized Framework Three (F03). This progression addresses the scholarly calls for digital business strategy integration (Kohtamäki et al., 2020; Lafuente et al. 2023) by directly tying technology choices to market positioning, revenue logic, and risk governance.

4.4 Discussion

The final framework developed in this study presents seven interdependent strategic guidelines for DT in small accounting offices. These elements emerged from empirical validation and theoretical synthesis, offering a grounded contribution to the management and accounting literature. This section discusses the implications of the framework for both academic research and managerial practice.

While many small firms approach digitalization as a matter of compliance or operational optimization, this study reinforces the view that DT is fundamentally about redefining organizational logic, value delivery, and stakeholder relationships (Matt et al., 2015). In accounting offices, DT reshapes how professionals interact with clients, manage information, and generate insight. Tasks once seen as purely procedural are now embedded in platforms that demand analytical and consultative roles. This structural shift aligns with the broader transition from transactional accounting to strategic advisory services, as observed in the literature (Lafuente et al., 2018; Abhishek et al., 2024).

The seven components of the framework reflect a transformation that is not merely technological, but deeply cultural and relational. Rooted in the Latin American context, the results reflect contextual contingencies of the region, including regulatory complexity, uneven digital infrastructure, and financing constraints, as documented by Lafuente et al. (2024). By explicitly addressing the constraints and opportunities present in small Brazilian accounting offices, the study responds to recent calls for more contextualized analyses of DT in SMEs (Pergelova & Yordanova, 2024). Importantly, the inclusion of *organizational*

culture for innovation underscores the finding that digital success depends not only on adopting tools, but also on fostering internal conditions for change, such as open leadership, experimentation, and knowledge sharing (Vial, 2019).

The findings complement research on service digitalization by demonstrating how small professional firms recombine resources to enable solution-oriented delivery and co-innovation with clients and partners (Holmström et al., 2019; Kohtamäki et al., 2020; Lafuente et al., 2023). The resulting framework embodies this recombination logic, translating it into practical emphasis on strategic alignment, risk culture, and client communication under resource constraints. Thus, it provides a practical response to Holmström et al.'s (2019) emphasis on the operational implications of digitalization. These findings, alongside those of Kohtamäki et al. (2020) and Mora-Esquivel and Leiva (2025), substantiate this study's core proposition that digital business strategy offers a coherent and organizing perspective for small professional services firms. Digitalization in accounting firms is not only inevitable, it is increasingly strategic.

From a practical standpoint, the framework serves as a strategic guide for entrepreneurs navigating the complexities of digitalization (Kane et al., 2015; Matt et al., 2015; Lafuente et al., 2021). Its modular structure allows for adaptation across diverse firm profiles and maturity levels. The explicit articulation of client-centricity and cultural transformation provides leaders with a more comprehensive understanding of what it means to "go digital" in accounting, not just in tools, but in mindset. In sum, the study enriches the academic conversation on DT in SMEs, while also equipping managers with structured, evidence-based guidance.

Academically, our results extend debates on digital strategy and organizational adaptation by showing how digital logics are operationalized in small professional firms, complementing Nambisan et al. (2019) on the transformation of decision-making logics in the digital era. The findings also connect to ecosystem views of solution delivery, where AI platforms act as cooperation enablers and help develop situating capabilities across partner networks (Vaillant et al., 2025), and to the co-innovation configuration literature in disrupted contexts (Lafuente et al., 2023).

Building on these reflections, the study yields a set of managerial implications one for each of the seven strategic guidelines to help owners of small accounting offices translate the framework into concrete action: a) Strategic alignment: start any digital initiative only after clarifying market positioning and the desired mix of compliance and advisory services; this ensures technology choices reinforce, rather than dilute, competitive focus. b) Risk culture: maintain a living risk register covering cybersecurity, regulatory compliance and return on investment, reviewed at partner meetings to temper optimism with disciplined oversight. c) Innovation culture: allocate a weekly digital hour in which staff test emerging tools and share learnings, nurturing collective digital fluency without large upfront cost. d) Organizational restructuring: revise job descriptions to include data-analytics and client-advisory tasks, and create a lightweight cross-functional team to steward process changes. e) Continuous technology adoption: institute a quarterly technology-scouting routine, so that the office can make small, reversible bets instead of sporadic, high-risk investments. f) Service-delivery change: migrate routine compliance tasks to cloud platforms and repackage the time saved as value-added advisory offerings, thereby increasing both client satisfaction and fee potential. g) Client communication: implement a digital onboarding checklist and a monthly KPI dashboard to give clients real-time visibility, strengthening trust and highlighting the benefits of the transformation. The next section builds on these insights to synthesize the theoretical and managerial contributions of the research.

5. Concluding Remarks

Although developed and tested with Brazilian accounting offices, the framework's modular architecture is readily adaptable to other knowledge-intensive micro-enterprises that exhibit similar partner-governance, regulatory exposure and client-relationship dynamics. By explicitly linking strategic intent, distinct cultural dimensions, and structural

adaptation, the study offers a replicable design-science template for scholars and a practical road-map for practitioners facing digitalization under resource constraints.

The theoretical contributions of this work stem from a synthesis of different viewpoints within the DT discourse. First, it offers a foundational contribution by systematizing the theoretical tenets of DT for the accounting field (Abhishek et al., 2024). The study also extends research on digital business strategy, particularly for professional-service SMEs, by elucidating the constitutive roles of strategic intent and risk governance in conditioning technological decisions and their resultant impacts (Kohtamäki et al., 2020; Lafuente et al., 2023). Concurrently, it advances the literature on service digitalization by empirically evidencing how information technology transforms operations, augmenting expert capabilities through integrated client-facing routines and data-driven advisory functions (Holmström et al., 2019; Spring et al., 2022; Angelopoulos et al., 2023; Lafuente & Sallan, 2024).

Furthermore, the detailed analysis of each strategic guideline advances the theoretical assumptions on the topic. The evidence reinforced previous studies on the adoption of new technologies (Kane et al., 2015; Verina & Titko, 2019), indicating that investment in DT is determined more by the operational cost of a new technology than by its acquisition cost. The financial aspects highlighted by Matt et al. (2015) thus play a less significant role in the DT process of small accounting offices. The evidence also complemented previous studies. The strategic guideline of risk culture (Gobble, 2018; Kane et al., 2015) was empirically confirmed, and in the studied context, the substantial role of the human element in DT (Pergelova & Yordanova, 2024). Finally, it is worth highlighting the importance given by the interviewees to the guideline of changes in service delivery to clients, as the use of digital technologies is premised on creating added value to the products and services available to clients (Singh & Hess, 2017).

While prior studies have discussed digital maturity (Kane et al., 2015), organizational resistance (Vial, 2019), and digital capability building (Warner & Wäger, 2019), this work synthesizes those threads through a structured, empirically grounded framework. By incorporating recent findings from Abhishek et al. (2024) and Pergelova and Yordanova (2024), the framework deepens our understanding of how digital strategy in small firms is not only technologically constrained, but also culturally and relationally shaped. In particular, this study expands the conceptualization of DT by explicitly including dimensions often underexplored: communication with clients, alignment with pre-existing strategic intent, and the cultural shift required for sustained change. It shows that DT is not a homogeneous process but a contingent transformation that reflects firm-specific configurations of structure, culture, and market orientation

From a managerial perspective, the study responds directly to the need for practical guidance in small professional service firms, a gap exacerbated by the COVID-19 crisis and the accelerated pace of digital change. The main contribution is the proposal of an artifact developed and evaluated by experts on the topic from various perspectives, enabling managers and entrepreneurs to guide their decision-making in the DT process within their small accounting offices. As a broad framework, its adoption aligns with the strategy previously defined by the offices, facilitating the identification of key areas to address. In this sense, another contribution to managerial practice is highlighting the direct relationship between the clarity of strategic objectives and the adoption of digital technologies. The study's evidence indicated that different strategic objectives naturally lead to different DT processes. There is, therefore, no single DT process for all accounting offices. Thus, the framework with strategic guidelines for DT has greater adherence to managers and entrepreneurs who already have well- defined strategic objectives.

The final framework, validated by stakeholders across academia, consulting, and practice, offers a diagnostic and planning tool that allows entrepreneurs to assess readiness, plan investments, and monitor risks. By highlighting the connection between strategy clarity and digital success, it provides managers with a pathway to bridge the gap between ambition and execution. In contexts where digital resources are scarce, and entrepreneurial leadership often overlaps with operational management, such a framework becomes particularly useful. It fosters a structured, non-prescriptive process, encouraging business owners to make incremental, strategic decisions while maintaining alignment with their firm's

identity, market positioning, and client base. In this sense, also methodologically this work demonstrates the utility of DSR in translating complex theoretical constructs into actionable knowledge artifacts. The iterative nature of the research enabled a continuous refinement based on real-world insights, making the final product adaptable and credible across different organizational profiles.

This study has limitations regarding methodological choices and the body of evidence. The DSR method adopts a pragmatic approach that prioritizes the application of concepts. Therefore, the evidence collection and analysis procedures were directed toward this objective. Given the evolving stage of DT, it was not possible to analyze the adoption of the framework of strategic guidelines in small accounting offices. The novelty of the topic also affected evidence collection, reducing the population of academics, DT experts, and accounting office managers qualified to discuss the proposed guidelines. It is suggested that future studies contribute to the DT process in two fields. In the academic field, studies on strategic guidelines can deepen the specificities of each in DT. In the managerial field, studies applying the framework can analyze whether the impacts of the DT process were adequately addressed by the artifact, suggesting adjustments and improvements based on its adoption.

Future research can extend this work in several directions. First, empirical applications of the framework across diverse regions or regulatory environments could test its generalizability and diagnostic capacity. Second, longitudinal studies could assess whether offices using the framework achieve higher levels of digital maturity or performance. Third, further research might refine individual dimensions, such as the role of digital leadership, workforce training, or regulatory adaptation, within the broader transformation process. Overall, this study reinforces that DT in small accounting offices is neither linear nor tool driven. It is a strategic and cultural shift that, when guided by structured frameworks and organizational self-awareness, can lead to meaningful innovation, improved client service, and enhanced competitiveness.

References

Ács, Z. J., Lafuente, E., & Szerb, L. (2022). A note on the configuration of the digital ecosystem in Latin America. *TEC Empresarial*, *16*(1), 1-19. https://doi.org/10.18845/te.v16i1.5926

Abhishek, N., Suraj, N., Rahiman, H. U., Nawaz, N., Kodikal, R., Kulal, A., & Raj, K. (2024). Digital transformation in accounting: elevating effectiveness across accounting, auditing, reporting and regulatory compliance. *Journal of Accounting & Organizational Change*. 1-16. https://doi.org/10.1108/JAOC-01-2024-0039

Angelopoulos, S., Bendoly, E., Fransoo, J. C., Hoberg, K., Ou, C., & Tenhiälä, A. (2023). Digital transformation in operations management: Fundamental change through agency reversal. *Journal of Operations Management*, *69*(6), 876-889. https://doi.org/10.1002/joom.1271

Bayon, M. C., Lafuente, E., & Vaillant, Y. (2016). Human capital and the decision to exploit innovative opportunity. *Management Decision*, *54*(7), 1615-1632. https://doi.org/10.1108/MD-04-2015-0130

Berman, S. J. (2012). Digital transformation: opportunities to create new business models. *Strategy & Leadership, 40*(2) 16-24. https://doi.org/10.1108/10878571211209314

Brau, R., Aloysius, J., & Siemsen, E. (2023). Demand planning for the digital supply chain: How to integrate human judgment and predictive analytics. *Journal of Operations Management*, *69*(6), 965-982. https://doi.org/10.1002/joom.1257

Chanias, S., Myers, M. D., & Hess, T. (2019). Digital transformation strategy making in pre- digital organizations: The case of a financial services provider. *The Journal of Strategic Information Systems*, *28*(1) 17-33. https://doi.org/10.1016/j.jsis.2018.11.003

Dresch, A., Lacerda, D. P., & Antunes, J. A. V. (2015). *Design science research. In Design science research: A method for science and technology advancement*. Springer International Publishing.

Drisko, J. W., & Maschi, T. (2016). *Content Analysis*. Oxford University Press.

Dubois, A., & Gadde, L. E. (2002). Systematic combining: an abductive approach to case research. *Journal of Business Research*, *55*(7) 553-560. https://doi.org/10.1016/S0148-2963(00)00195-8

Escribá-Carda, N., Redondo-Cano, A., & Escribá-Moreno, M. (2024). Firms' digital transformation and e-human resource management. A qualitative approach. *Tec Empresarial, 18*(3), 103-128. https://doi.org/10.18845/te.v18i3.7289

Fernandes, M. V., & Verschoore, J. R. (2020). How blockchain affects the technological strategy of the financial industry: an analysis based on knowledge discovery in text. *Future Studies Research Journal: Trends and Strategies*, *12*(2), 311-334, https://doi.org/10.24023/FutureJournal/2175-5825/2020.v12i2.498

Foss, N. J. (2020). The impact of the Covid-19 pandemic on firms' organizational designs. *Journal of Management Studies*, *58*(1), 270. https://doi.org/10.1111/joms.12643

Freitas, J. C., Bitencourt, C. C., Cabral, P. M., & Brinkhues, R. A. (2019). Design science research in developing leadership in virtual worlds. *International Journal of Science and Research Methodology, 14*(1) 73-98.

Gobble, M. M. (2018). Digital strategy and digital transformation. *Research-Technology Management*, *61*(5), 66-71. https://doi.org/10.1080/08956308.2018.1495969

Goldfarb, A., & Tucker, C. (2019). Digital economics. *Journal of Economic Literature*, *57*(1), 3-43. https://doi.org/10.1257/jel.20171452

Gupta, S. (2018). *Driving digital strategy:* A guide to reimagining your business. Harvard Business Press.

Hess, T., Matt, C., Benlian, A., & Wiesböck, F. (2016). Options for formulating a digital transformation strategy. *Mis Quarterly Executive*, *15*(2), 123-139.

Hinings, B., Gegenhuber, T., & Greenwood, R. (2018). Digital innovation and transformation: An institutional perspective. *Information and Organization*, *28*(1), 52-61. https://doi.org/10.1016/j.infoandorg.2018.02.004

Holmström, J., Holweg, M., Lawson, B., Pil, F. K., & Wagner, S. M. (2019). The digitalization of operations and supply chain management: Theoretical and methodological implications. *Journal of Operations Management*, *65*(8), 728-734. https://doi.org/10.1002/joom.1073

Humdan, E. A., Shi, Y., Behina, M., Chowdhury, M. M. H., & Mahmud, A. S. (2023). The role of innovativeness and supply chain agility in the Australian service industry: a dynamic capability perspective. *International Journal of Physical Distribution & Logistics Management*, *53*(11), 1-25. https://doi.org/10.1108/IJPDLM-03-2022-0062

Iansiti, M. & Lakhani, K. R. (2020). *Competing in the Age of AI*. Harvard Business Review Press.

Jacociunas, T., Verschoore, J. R., & Monticelli, J. M. (2024). Digital transformation of higher education institutions: A framework for strategic decision-making. *Revista Internacional de Educação Superior*, *10*, e024036-e024036. https://doi.org/ 10.20396/riesup.v10i00.8665499

Kane, G. C., Palmer, D., Phillips, A. N., Kiron, D., & Buckley, N. (2015). Is your business ready for a digital future? *MIT Sloan Management Review*, *56*(4), 37-44.

Kargas, A., Gialeris, E., Komisopoulos, F., Lymperiou, A., & Salmon, I. (2023). Digital maturity and digital transformation strategy among Greek small and medium enterprises. *Administrative Sciences*, *13*(11), 236. https://doi.org/10.3390/admsci13110236

Kohtamäki, M., Parida, V., Patel, P. C., & Gebauer, H. (2020). The relationship between digitalization and servitization: The role of servitization in capturing the financial potential of digitalization. *Technological Forecasting and Social Change*, *151*, 119804. https://doi.org/10.1016/j.techfore.2019.119804

Konopik, J., Jahn, C., Schuster, T., Hoßbach, N., & Pflaum, A. (2022). Mastering the digital transformation through organizational capabilities: A conceptual framework. *Digital Business*, *2*(2), 100019. https://doi.org/10.1016/j.digbus.2021.100019

Lafuente, E., Ács, Z. J., & Szerb, L. (2024). Analysis of the digital platform economy around the world: A network DEA model for identifying policy priorities. *Journal of Small Business Management*, *62*(2), 847–891 https://doi.org/10.1080/00472778.2022.2100895

Lafuente, E., Alonso-Ubieta, S., Leiva, J. C., & Mora-Esquivel, R. (2021). Strategic priorities and competitiveness of businesses operating in different entrepreneurial ecosystems: a benefit of the doubt (BOD) analysis. *International Journal of Entrepreneurial Behavior & Research*, *27*(5), 1351-1377. https://doi.org/10.1108/IJEBR-06-2020-0425

Lafuente, E., & Sallan, J. M. (2024). Digitally powered solution delivery: The use of IoT and AI for transitioning towards a solution business model. *International Journal of Production Economics*, *277*, 109383. https://doi.org/10.1016/j.ijpe.2024.109383

Lafuente, E., Vaillant, Y., & Leiva, J.C. (2018). Sustainable and traditional product innovation without scale and experience, but only for KIBS!. *Sustainability*, *10*(4), 1169. https://doi.org/10.3390/su10041169

Lafuente, E., Vaillant, Y., & Rabetino, R. (2023). Digital disruption of optimal co-innovation configurations. *Technovation*, *125*, 102772. https://doi.org/10.1016/j.technovation.2023.102772

Manson, N. J. (2006). Is operations research really research? *Orion*, *22*(2), 155-180. https://doi.org/10.5784/22-2-40

Matt, C., Hess, T., & Benlian, A. (2015). Digital transformation strategies. *Business & information Systems Engineering*, *57*(5), 339-343. https://doi.org/10.1007/s12599-015-0401-5

Nambisan, S., Wright, M., & Feldman, M. (2019). The digital transformation of innovation and entrepreneurship: Progress, challenges and key themes. Research Policy, *48*(8), 103773. https://doi.org/10.1016/j.respol.2019.03.018

Mora-Esquivel, R. & Leiva, J.C. (2025). The role of digital service innovation strategy on SME performance: an international study. *Journal of Enterprise Information Management*. https://doi.org/10.1108/JEIM-02-2024-0099

Pergelova, A., & Yordanova, D. (2024). The human element in digital transformation: The role of talent management for SMEs. *Journal of the International Council for Small Business*, *6*(2), 269-283. https://doi.org/10.1080/26437015.2024.2404177

Singh, A., & Hess, T. (2017). How chief digital officers promote the digital transformation of their companies. *MIS Quarterly Executive*, *16*(1) 1-17.

Sisaye, S., & Birnberg, J. (2010). Extent and scope of diffusion and adoption of process innovations in management accounting systems. *International Journal of Accounting and Information Management*, *18*(2) 118-139. https://doi.org/10.1108/18347641011048110

Spring, M., Faulconbridge, J., & Sarwar, A. (2022). How information technology automates and augments processes: Insights from Artificial-Intelligence-based systems in professional service operations. *Journal of Operations Management*, *68* (6-7), 592-618. https://doi.org/10.1002/joom.1215

Telukdarie, A., Dube, T., Matjuta, P., & Philbin, S. (2023). The opportunities and challenges of digitalization for SME's. *Procedia Computer Science*, *217*, 689-698. https://doi.org/10.1016/j.procs.2022.12.265

Vaillant, Y., & Lafuente, E. (2024). Digital versus non-digital servitization for environmental and non-financial performance benefits. *Journal of Cleaner Production*, *450*, 142078. https://doi.org/10.1016/j.jclepro.2024.142078

Vaillant, Y., Lafuente, E., & Vendrell-Herrero, F. (2025). AI platforms as cooperation enablers favoring the development of strategic situating capabilities within solution delivery ecosystems. *Journal of Product Innovation Management*, in press. https://doi.org/10.1111/jpim.12807

Verina, N., & Titko, J. (2019). *Digital transformation: conceptual framework*. Proceedings of the International Scientific Conference "Contemporary Issues in Business, Management and Economics Engineering", Lithuania.

Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *The Journal of Strategic Information Systems*, *28*(2), 118-144. https://doi.org/10.1016/j.jsis.2019.01.003

Warner, K. S., & Wäger, M. (2019). Building dynamic capabilities for digital transformation: An ongoing process of strategic renewal. *Long Range Planning*, *52*(3), 326-349. https://doi.org/10.1016/j.lrp.2018.12.001