



Building an Agile Organization Through IT Governance

Como Construir uma Organização Ágil pela Governança de TI

Cómo Construir una Organización Ágil mediante la Gobernanza de TI

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Abstract

Today's business environment is highly dynamic, and organizations, along with their executives, seek to achieve superior performance and competitive advantage through IT resources and capabilities. This study aims to investigate how IT governance can contribute to building an agile organization. To address this objective, a qualitative single-case study was conducted in a leading Brazilian insurance company. The findings indicate that IT governance—through strategic alignment between the business and IT, together with the integration of its mechanisms (processes, structures, and relational mechanisms) and domains (strategic, managerial, and operational) with the SAFe agile framework — enabled the organization under study to become more agile. This study contributes to the IT governance and agile methods literature, as well as to managerial practice, by proposing an integration model that combines governance models with agile methods.

Keywords: agile organization, IT governance, agile framework.

Resumo

O ambiente de negócios contemporâneo é bastante dinâmico e as organizações, bem como seus executivos, buscam obter desempenho superior e vantagem competitiva por meio dos recursos e capacidades de TI. Este estudo tem por objetivo investigar como a governança de TI pode contribuir para a construção de uma organização ágil. Para viabilizar este estudo, foi empregado o método qualitativo de caso único em uma importante organização de seguros do Brasil. Como resultado, foi identificado que a governança de TI, por meio do alinhamento estratégico entre o negócio e a TI, e da relação com seus mecanismos (processos, estruturas e mecanismos relacionais) e domínios (estratégico, gestão e operacional) integrados ao framework ágil SAFe, habilitou a organização estudada a se tornar mais ágil. O estudo contribui para a literatura de governança de TI e de métodos ágeis, assim como para a prática gerencial, ao propor um modelo de integração entre modelos de governança e métodos ágeis.

Palavras-chave: organização ágil, governança de TI, framework ágil.

Resumen

El entorno empresarial contemporáneo es altamente dinámico, y las organizaciones, así como sus directivos, buscan alcanzar un desempeño superior y una ventaja competitiva a través de los recursos y capacidades de las tecnologías de la información (TI). Este estudio tiene como objetivo investigar cómo la gobernanza de TI puede contribuir a la construcción de una organización ágil. Para ello, se empleó el método cualitativo de estudio de caso único en una importante empresa aseguradora de Brasil. Como resultado, se identificó que la gobernanza de TI, mediante la alineación estratégica entre el negocio y la TI, así como a través de la articulación de sus mecanismos (procesos, estructuras y mecanismos relacionales) y dominios (estratégico, de gestión y operativo), integrados al marco de trabajo ágil SAFe, permitió que la organización estudiada se volviera más ágil. El estudio contribuye a la literatura sobre gobernanza de TI y métodos ágiles, así como a la práctica gerencial, al proponer un modelo de integración entre modelos de gobernanza y métodos ágiles.

Palabras clave: organización ágil, gobernanza de TI, marco ágil.

Introduction

Global spending on Information Technology (IT) is projected to exceed US\$6 trillion in 2026, reflecting IT's consolidation as a core strategic capability for achieving competitive differentiation and creating economic and social value (Gartner, 2025). Digital transformation has reshaped business models and intensified the pressure on organizations to evolve rapidly in order to respond to market changes and sustain competitive differentiation (Ross, 2020). In this context, superior performance and competitive advantage depend less on the volume of IT investment than on organizations' ability to combine and coordinate their resources in an agile manner within business environments characterized by high levels of complexity and dynamism (Tallon & Pinsonneault, 2011; Tallon et al., 2019).

In Brazil, the insurance market has grown steadily while becoming increasingly competitive in a context shaped by the digitalization of distribution channels, regulatory developments, and the evolving role of insurance brokers (CNseg, 2023; SUSEP, 2025). In 2024, the sector recorded real growth of more than 7%, achieving record premium revenue and reinforcing its sustained expansion trajectory (SUSEP, 2025). In this environment, insurance brokers increasingly demand greater flexibility in business models, new pricing approaches, and advanced digital capabilities to interact with insurers and end customers, a trend accelerated by the implementation of Open Insurance and other major industry modernization initiatives (McKinsey & Company, 2024). Consequently, IT has evolved beyond a purely operational function to assume a central role in coordinating relationships between insurers and brokers while enabling organizational capabilities associated with efficiency, personalization, and agility.

Research published during the 2000s established that organizational performance is associated with the implementation of IT governance, which aligns business and IT strategies to generate organizational value (De Haes & Van Grembergen, 2009; Grembergen et al., 2004; Peterson, 2004b; Weill & Ross, 2004). However, traditional IT governance frameworks do not explicitly address the adoption of agile practices (Vejseli et al., 2018).

From this perspective, IT governance orchestrates IT capabilities (Khalil & Belitski, 2020) to enable organizational agility in complex business environments by increasing organizations' capacity to adapt and accelerate change (Tallon & Pinsonneault, 2011; Tallon et al., 2019). Consequently, many organizations have adopted agile methods to meet growing customer expectations and the increasing demand for new products and services (Jovanović et al., 2020).

Organizations therefore implement agile methods as a means of introducing agility into their operations, typically beginning with selected agile practices, such as self-organizing, empowered teams responsible for small-scale projects within limited organizational contexts (Jovanović et al., 2020; Kalenda et al., 2018; Rohunen et al., 2010; Vejseli et al., 2018). Nevertheless, these isolated initiatives, although widely used in agile software development, are not sufficient to build an agile organization.

Previous studies have examined the adoption of agile methods through agile frameworks as a pathway to building an agile organization (Jovanović et al., 2020; Rohunen et al., 2010; Sidky et al., 2007). These studies have highlighted the fundamental role of IT governance, particularly with respect to strategic IT alignment, organizational transformation, and organizational culture in fostering organizational agility. More recent research has focused on how IT governance should manage the implementation of agile methods by considering IT governance domains alongside agile principles and practices (Luna et al., 2010; Luna et al., 2014; Teece, 2020; Vejseli et al., 2018).

Against this backdrop, this study adopts a contemporary view of organizational agility, in which digital transformation and organizational culture serve as enabling conditions for shortening learning cycles and delivering customer value throughout the organization, extending well beyond the IT function. This perspective emphasizes sustained customer focus, work organized into small batches by small teams operating in short cycles, network-based coordination across the enterprise, and the deliberate cultivation of an agile mindset as the operational drivers of organizational agility (Denning, 2018). In parallel, IT governance is conceptualized as an orchestration capability because it enables agility by aligning and reconfiguring IT decisions and assets with strategic priorities, thereby supporting operational adaptation,

the exploitation of market opportunities, and ultimately superior organizational performance, consistent with recent theoretical syntheses linking IT governance and agility (Tallon et al., 2019; Teece et al., 2016; Teece, 2020).

Accordingly, this study seeks to answer the following research question: How can IT governance contribute to building an agile organization?

To address this question, the study pursues three specific objectives: i) to propose an integrated model combining an IT governance framework with an agile framework; ii) to identify the relationships between IT governance domains and the elements of the agile framework; and iii) to investigate, through a case study, the implementation of the integrated IT governance and agile framework model.

Accordingly, this study seeks to address the research gap concerning how IT governance can contribute to the development of new theoretical perspectives on capabilities in agile organizations (Khalil & Belitski, 2020; Chen et al., 2014; Dybå & Dingsøyr, 2008; Ravichandran, 2017; Rohunen et al., 2010; Sidky et al., 2007; Tallon & Pinsonneault, 2011; Tallon et al., 2019; Vejseli et al., 2018). In addition, the study offers practical implications for organizations and senior executives by proposing an IT governance model capable of building an agile organization, thereby supporting more effective IT investment allocation and ultimately superior organizational performance.

Theoretical Background

Agile Organization

Organizations are influenced by external conditions, industry characteristics, business partners, and other contextual factors, including uncertainty, environmental turbulence, and competition (Melville et al., 2004). In highly complex and demanding environments, organizations must be flexible and agile to achieve competitive differentiation (Lee et al., 2015; Ravichandran, 2017). In this context, contemporary research demonstrates that IT capabilities enable organizations to become agile, allowing them to respond effectively to market needs and changes while continuously reconfiguring and adapting their operations to achieve superior performance (Lu & Ramamurthy, 2011; Mikalef & Pateli, 2017).

Accordingly, this study defines organizational agility as an organization's ability to respond rapidly and innovatively to environmental changes, which often emerge unexpectedly (Conboy & Fitzgerald, 2004; Lu & Ramamurthy, 2011; Ravichandran, 2017; Sambamurthy et al., 2003).

From this perspective, agile organizations are oriented in two complementary ways: i) toward the market, focusing on driving business change in response to market influences; and ii) toward the organization itself, focusing on process improvement and internal transformation (Lu & Ramamurthy, 2011; Mikalef & Pateli, 2017). Thus, regardless of their strategic orientation for achieving competitive advantage and improving performance, organizations must be capable of acquiring, adapting, and deploying their resources in an agile manner (Bradley et al., 2012; Tallon & Pinsonneault, 2011).

In summary, the concept of organizational agility adopted in this study — grounded in the ability to respond rapidly and innovatively to environmental change — has been consistently supported by recent literature, particularly given its growing importance in the highly uncertain environments characteristic of the digital economy. Accordingly, agility should be calibrated to the level of environmental dynamism and to business strategic priorities rather than being viewed as a permanent state of change (Teece et al., 2016; Teece, 2020). Complementing this perspective, research on digital transformation and organizational maturity demonstrates that agility emerges when customer focus, small-batch work organized into short iterative cycles, organization-wide network orchestration, and the active cultivation of an entrepreneurial mindset are combined to accelerate customer-centered learning cycles (Denning, 2018). Within this framework, organizational culture is no longer viewed merely as a generic antecedent but rather as a deliberate mechanism for nurturing an agile mindset at scale, a recurring prerequisite for sustaining organizational agility (Denning, 2020; Kane, 2019).

IT Governance

IT capability enables organizations to structure, organize, and deploy infrastructure and technology resources integrated with organizational resources to deliver value and enhance organizational performance (Melville et al., 2004). Within this context, IT governance has emerged as a means of making organizations more flexible and agile through the effective use of IT resources (Khalil & Belitski, 2020; Vejseli et al., 2018; Weill & Ross, 2004). IT governance possesses an orchestration capability that integrates structural, procedural, and relational mechanisms to enable organizational agility by aligning and reconfiguring IT resources with business priorities (Mikalef et al., 2021; Tallon et al., 2019; van de Wetering, 2021).

Accordingly, organizations seek to structure themselves to meet evolving business requirements. In this sense, "IT governance is the process by which organizations align IT actions with their performance objectives and assign accountability for those actions and their outcomes" (Khalil & Belitski, 2020; Weill & Ross, 2004). Therefore,

IT governance is closely associated with an organization's maturity in leveraging IT and with the factors that facilitate this integration (Gulzar, 2020; Venkatraman, 1994).

From this perspective, IT governance domains are articulated through structures and processes that enable organizations to sustain alignment between business and IT strategies (Vejseli et al., 2018; Weill & Ross, 2004). Achieving this alignment requires the establishment of a set of IT governance mechanisms (Khalil & Belitski, 2020; van Grembergen, 2013). Accordingly, IT governance can be understood as a decision-making and accountability framework that guides the use of IT through structural, procedural, and relational mechanisms (Grembergen et al., 2004; Khalil & Belitski, 2020; Peterson, 2004b; Tallon & Pinsonneault, 2011; Weill & Ross, 2004).

Previous studies have examined how IT governance — through governance archetypes, decision-making methods, and management support tools — has improved the return on IT investments, enhanced efficiency, and promoted the effective use of IT resources (Awais & Gill, 2016; Luna et al., 2014; Peterson, 2004b). During the 2000s, the implementation of IT governance management methodologies, such as ITIL and COBIT, was recognized as complex and requiring substantial organizational investment (Luna et al., 2010; Vejseli et al., 2018).

More recent studies on IT governance have reinforced the importance of business–IT alignment as the starting point for implementing the remaining IT governance domains (De Haes & Van Grembergen, 2009; Khalil & Belitski, 2020; Tallon & Pinsonneault, 2011). According to these studies, governance across the strategic, managerial, and operational domains enables organizations to develop dynamic capabilities through processes, structures, and relational mechanisms, thereby achieving superior performance and competitive advantage.

Accordingly, IT governance directly influences organizational structure, planning, decision-making, and control processes (Weill & Ross, 2005; Weill & Ross, 2004). In this sense, it represents a critical enabler of organizational agility, as organizations that adopt governance frameworks are generally better equipped to adapt to change (De Haes & Van Grembergen, 2009; Peterson, 2004b; Teoh & Chen, 2013; van Grembergen & De Haes, 2018; Weill & Ross, 2004). Thus, IT governance in agile organizations can be understood as encompassing the definition and implementation of governance mechanisms that enable organizations to integrate IT capabilities in ways that support business objectives. Consistent with this perspective, recent empirical evidence indicates that IT governance contributes to organizational performance primarily through indirect mechanisms, particularly by fostering business–IT alignment and enhancing organizational responsiveness in environments characterized by greater volatility (Tallon & Pinsonneault, 2011; Tallon et al., 2019). These findings further reinforce the role of IT governance as an integrating element across the strategic, managerial, and operational decisions discussed in this section.

Agile Frameworks

Information Systems (IS) development underwent a major transformation following the publication of *The Agile Manifesto* in 2001. The manifesto was intended to provide an alternative to traditional IS development processes and methodologies, which were characterized by rigid procedures and extensive documentation (Highsmith et al., 2001).

The adoption of agile frameworks initially occurred within small, enthusiastic teams. The most widely used agile methods included Extreme Programming (XP), Scrum, Dynamic Systems Development Method (DSDM), Adaptive Software Development (ASD), Crystal, Feature-Driven Development (FDD), and Pragmatic Programming. These methods served as the foundation for the development of *The Agile Manifesto* (Dybå & Dingsøyr, 2008; Highsmith et al., 2001).

With the expansion of digital technologies and digital transformation strategies, IT governance — through its strategic, managerial, and process domains — has increasingly supported the development of organizational capabilities that enable organizations to become more agile (Bharadwaj et al., 2013). In this context, IT governance facilitates business–IT alignment (De Haes & Van Grembergen, 2009) while establishing mechanisms to evaluate, validate, adopt, implement, and institutionalize agile approaches and methods through the evolution of scaled agile frameworks (Jovanović et al., 2020; Schuch et al., 2020).

Scaled agile frameworks provide structured descriptions of processes, organizational structures, and practices that enable organizations to respond rapidly and dynamically to environmental changes and market demands by applying agile principles at scale (Jovanović et al., 2020; Schuch et al., 2020).

Horlach et al. (2018) conducted a systematic literature review of scaled agile frameworks and compared them with the five IT governance decision domains to evaluate each framework's degree of alignment. Their review identified 35 frameworks, of which eight were selected for detailed analysis, including the Scaled Agile Framework® (SAFe), Disciplined Agile Delivery, Enterprise Agility, Scrum@Scale, Recipes for Agile Governance (RAGE), XScale, Large-Scale Scrum (LeSS), Lean Management, Agile Portfolio Management (APM), Nexus, and Scrum of Scrums.

Although several scaled agile frameworks are available, the Scaled Agile Framework® (SAFe) was selected for this study. According to the 14th *State of Agile Report* (Digital.ai, 2020), SAFe is the most widely adopted framework among organizations and practitioners. Moreover, it was chosen because it demonstrated the highest degree of alignment with IT governance domains in a prior comparative analysis (Horlach et al., 2018).

IT Governance and the Scaled Agile Framework (SAFe)

IT governance aims to enable IT resources and capabilities through processes, structures, and relational mechanisms in order to achieve superior organizational performance and competitive advantage (Khalil & Belitski, 2020; Weill & Ross, 2004). Specifically, (i) structures encompass the definition of roles and responsibilities, the IT organizational structure, the IT strategy committee, and IT steering committee(s) (De Haes & Van Grembergen, 2005); (ii) processes consist of formal decision-making arrangements that ensure IT policies are implemented throughout organizational operations while their outcomes are monitored and reported (Khalil & Belitski, 2020), and (iii) relational mechanisms include business and IT participation, strategic dialogue, shared learning, and effective communication.

The IT governance domains (namely strategic, managerial, and operational) correspond to functional, structural, and decision-making layers (Bradley et al., 2012; Ryu et al., 2020). Each domain has distinct characteristics. The strategic domain ensures alignment between business and IT objectives, focusing on IT value delivery, IT expenditure optimization, IT infrastructure, and data sharing (Luftman, 2003). The managerial domain emphasizes the development of capabilities required to leverage emerging IT trends, as well as risk management and the agility needed to effectively utilize Information Systems (IS), thereby enhancing organizational resilience and responsiveness to disruptions (Khalil & Belitski, 2020). Finally, the operational domain is responsible for the efficient implementation of IT, business infrastructure, and operational processes that directly influence organizational performance.

The *Scaled Agile Framework for Lean Enterprises 5.0* (SAFe) is an openly available body of knowledge comprising proven and integrated Lean-Agile practices for enterprise-wide development (Thawaba et al., 2020). SAFe establishes mechanisms for adopting Agile at organizational scale by structuring work across the team, program, portfolio, and value stream levels (Paasivaara, 2017). Its architectural model provides a shared high-level vision and technical direction while proposing a strategic architecture capable of integrating portfolios and products. Consequently, SAFe promotes collaboration across multiple organizational levels in the delivery of solutions through distinct competencies. Although these competencies are interdependent, each independently contributes to value creation (Leffingwell, 2020).

The model proposed in this study was developed by integrating the IT governance domains and mechanisms proposed by Khalil & Belitski (2020) with the core elements of the SAFe framework, thereby enabling IT capabilities that support the development of an agile organization.

Figure 1

Governance model

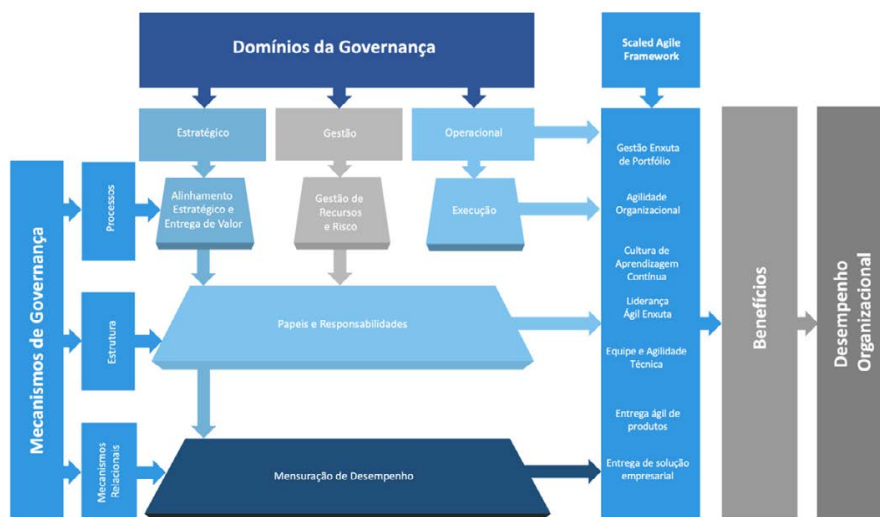


Figure 1 illustrates the relationships among the IT governance domains, governance mechanisms, and the elements of the SAFe framework. The dimensions of the proposed IT governance and agile methods model are described below.

The strategic IT governance domain encompasses the strategic alignment between business and IT operations as well as the delivery of business value through technology. This domain is associated with structures, which define organizational roles and responsibilities for IT decision-making (Peterson, 2004a), while processes represent formal decision-making arrangements. These processes support strategic decision-making and performance monitoring, for example, through the IT Balanced Scorecard management tool (De Haes & Van Grembergen, 2005). Relational mechanisms, in turn, facilitate communication across different managerial levels and organizational departments (Khalil & Belitski, 2020). Within this context, according to Leffingwell (2020), integrating IT governance with the SAFe framework enables organizational agility through the following competencies:

- (i) *Lean portfolio management*: Ensures that the entire portfolio is aligned and appropriately funded to develop and sustain the solutions required to achieve business objectives;
- (ii) *Organizational agility*: Describes how Lean-thinking individuals and agile teams optimize business processes through clear objectives and commitments, decision-making autonomy, and rapid organizational adaptation to capitalize on emerging opportunities;
- (iii) *Continuous learning culture*: Represents a set of values and practices that encourage individuals, and the organization as a whole, to continuously develop business and technical knowledge, thereby enhancing capabilities for innovation and organizational performance.

The managerial IT governance domain comprises management structures and processes. Management structures represent employees' competencies and the organizational capabilities made available through human resources (Khalil e Belitski (2020). Processes, in turn, enable strategic decision-making by supporting monitoring and control activities, including the use of the Balanced Scorecard (BSC) (De Haes e Van Grembergen, 2009). According to Khalil e Belitski (2020), management structures constitute a central managerial concern because they enable employees to continuously develop the competencies required to leverage emerging IT trends. In this context, structures and processes provide the means to plan and monitor the achievement of IT objectives (Peterson, 2004a). From this perspective, integrating the SAFe framework contributes to organizational agility through the following competencies:

- (i) *Lean-agile leadership*: Refers to agile leaders who drive and sustain organizational change and operational excellence by empowering individuals and teams to achieve higher levels of business and technical expertise;
- (ii) *Team and technical agility*: Refers to the development of critical capabilities and the application of Lean-Agile principles and practices to create high-quality solutions for both external and internal customers.

The operational IT governance domain enables the integration of standardized, transaction-oriented data concerning products, customers, and external partners, both within and beyond organizational boundaries (Khalil & Belitski, 2020). In addition, this domain is shaped by operational processes and facilitates information exchange throughout the organization. Accordingly, integrating the SAFe framework supports organizational agility through the following competencies:

- (i) *Agile product delivery*: Represents a customer-centric approach to defining, developing, and continuously delivering valuable products and services to customers and end users;
- (ii) *Enterprise solution delivery*: Describes how Lean-Agile principles and practices are applied to the specification, development, deployment, operation, and evolution of Information Systems (IS) applications.

Methodology

This study adopted a case study approach to investigate how the integration of IT governance and the SAFe agile framework contributes to building an agile organization. Specifically, a qualitative single-case study was conducted within the context of a single organization (Krogh et al., 2012; Yin, 2017).

An exploratory research design was employed to define research questions, propose new constructs, and develop new theoretical insights (Dubé & Paré, 2003) through the investigation of the phenomenon under study (Yin, 2017). The study was informed by existing knowledge and theories related to IT governance and agile methods. A holistic approach was adopted to examine complex phenomena within a specific organizational context (Eisenhardt, 1989; Paré, 2004). Accordingly, the case study method provided an appropriate means of understanding how IT governance, when integrated with agile methods, can contribute to building an agile organization.

The research followed the stages recommended by Eisenhardt (1989) and Yin (2017): i) identifying the research problem and formulating the research question and objectives; ii) reviewing the literature to guide the development of the proposed integration model combining IT governance and agile methods; iii) selecting the case organization; iv) collecting data through the planning and execution of interviews; v) analyzing the collected data; and vi) presenting the study's findings and conclusions.

The study selected an organization from the insurance sector that met the requirements for investigating how the integration of IT governance and agile methods contributes to building an agile organization. To preserve organizational anonymity and ensure the confidentiality of both organizational data and case study information, pseudonyms were assigned to individuals and organizations, following Creswell (2014) recommendations. Accordingly, the organization examined in this study is referred to by the pseudonym Alpha.

Semi-structured interviews constituted the primary data collection strategy, following Yin (2017) recommendation that interviews represent one of the most important sources of evidence in case study research. Four executives directly involved in leading the organization's agile initiatives and practices were interviewed, as shown in Table 1. The participants held strategic positions directly related to the phenomenon under investigation, including the Head of the Agility Center and Project Management Office, the Head of the IT Strategy Office, the Corporate Agile Coach, and the Head of IT Governance. Selecting these executives ensured access to detailed, context-rich information regarding the organizational processes, decisions, and governance mechanisms examined in this study.

Table 1*Participant profile*

Respondents	Executive 1	Executive 2	Executive 3	Executive 4
Position	Manager	Agile Coach	Manager	Manager
Department	Agility Center and Project Management Office	Agility Center and Project Management Office	IT Strategic Office	IT Governance
Organizational tenure	More than 20 years	More than 5 to 10 years	More than 5 to 10 years	More than 10 to 15 years
Gender	Male	Male	Male	Female
Generation	Generation X (born between 1965 and 1979)	Generation Y (born between 1980 and 1995)	Generation X (born between 1965 and 1979)	Generation Y (born between 1980 and 1995)

The study was conducted in an organization whose agile journey began within the IT department and was subsequently expanded to other organizational levels through a formally structured implementation plan. Throughout this process, interviews were conducted in recorded meetings, fully transcribed, and used as the primary source of evidence. These transcripts constituted the principal empirical material for the analytical phase.

Data were analyzed using Bardin's (2016) content analysis technique, following the stages of pre-analysis, material exploration, data treatment, inference, and interpretation. The analytical process involved multiple readings of the interview transcripts, the definition of analytical categories, and systematic coding, enabling the identification of patterns, relationships, and meanings associated with the adoption and scaling of the agile approach within the organization. Importantly, analytical decisions were documented throughout the process to ensure consistency and traceability.

To strengthen internal validity, source and methodological triangulation were employed. In addition to the interviews, the analysis included institutional documents related to IT governance domains and mechanisms, reports and performance metrics from agile projects, materials provided by the interviewees, academic books and journal articles, as well as information obtained from the organization's website and other publicly available sources. Integrating these complementary sources of evidence provided a more comprehensive understanding of the phenomenon while enabling the comparison of multiple perspectives (Yin, 2017).

Finally, pattern matching as recommended by Yin (2017) was employed to compare the empirical patterns identified through the content analysis with the theoretical patterns proposed in the integrated IT governance and agile frameworks model. This approach enabled the assessment of the degree of convergence between empirical evidence and theory, thereby strengthening the interpretive rigor of the findings.

Results and Discussion

The Organization

The study was conducted in an insurance company that had adopted agile practices with the objective of developing organizational capabilities to deliver IT projects more rapidly and with higher quality, thereby meeting the needs of both internal business units and external customers. For the purposes of this study, the organization made available executives directly involved in IT governance and agile initiatives.

The organization, referred to by the pseudonym Alpha, is a privately owned Brazilian company with more than 30 years of operation and ranks among the ten largest organizations in the Brazilian insurance industry. It comprises multiple business units and offers a broad portfolio of products and services, including consortiums, financial solutions, protection and monitoring services, occupational health services, and other business offerings.

In addition, Alpha has established an IT Agility Center whose mission is to promote agility throughout the organization, including both IT and business projects, by creating customer value and supporting sustainable growth. The organization has also implemented a strategic roadmap designed to scale agile practices through permanent agile delivery structures. By integrating business and IT functions and emphasizing business outcome-oriented delivery measured through efficiency and effectiveness indicators, Alpha seeks to transform its organizational culture toward agile project delivery. Employees are organized according to functional areas and responsibilities, with business problems initially assessed by the respective organizational units and subsequently analyzed by Alpha's Agility Center.

IT Governance and Agile Frameworks

This study examined the relationships between IT governance domains and governance mechanisms in their integration with the agile framework at Alpha. Interviews with the executives revealed that organizational planning is

strategically aligned to define the guidelines and initiatives supporting the implementation of the agile framework. In this regard, Alpha maintains a cycle of strategic planning meetings involving senior executives from both the business and IT functions.

To investigate how the integration of IT governance and the agile framework contributes to building an agile organization, the interviews explored the organization's IT governance domains and mechanisms, as well as the elements of the SAFe framework, according to the integrated model proposed in this study. The findings are presented below by governance domain, governance mechanism, and SAFe framework element.

Processes — strategic alignment and value delivery. The findings demonstrated a clear alignment between business and IT strategies. IT strategic planning is integrated with business strategy and is designed to support business needs. Within this context, senior IT executives actively participate in strategic planning meetings and provide guidance on how IT resources can sustain and leverage business strategy. Strategic objectives for the IT function are subsequently cascaded through meetings across multiple organizational levels, during which departmental goals and IT priorities are communicated and formally established. Accordingly, strategic communication flows throughout the organization, from senior IT leadership, including directors and senior managers, to operational staff and outsourced personnel. Consistent with previous research on IT governance and IT strategy (Weill, 2004; Khalil & Belitski, 2020; Yoshikuni & Albertin, 2020), Alpha benefits from promoting strategic alignment between business and IT by establishing IT architectures and applications that support strategic initiatives and organizational objectives.

The findings also indicate that Alpha adopted a strategy for disseminating agile culture through initiatives implemented primarily at the operational level. Consequently, individual business units retain discretion regarding the extent to which they participate in implementing agile methods within their products and business processes. Organizational agility is therefore assessed based on the organization's ability to sense and respond rapidly to customer needs, with priorities established according to the requirements of each business area. Alpha also adopted Minimum Viable Product (MVP) practices, enabling the Lean Portfolio Management competency of the agile framework, in which Epic Owners (responsible for groups of related use cases) collaborate throughout the business case development process, as illustrated by the Lean business initiative.

[...] We are not the best team to answer questions about strategic planning because our knowledge is limited. We understand it, but not in depth, we are the ones who execute it (Executive 1);

Digital initiatives emerged within two cross-functional areas, so it depends on each product area... There is still no single organizational roadmap describing how this transformation will take place (Executive 1).

Structures — roles and responsibilities. Within the strategic governance domain, agile implementation activities are supported by a well-defined organizational structure with clearly assigned roles and responsibilities, including Agile Coaches, Lead Coaches, Architects, Scrum Masters, and other agile teams responsible for supporting framework implementation. Accordingly, the organization established an implementation structure and designated individuals to lead the agile transformation, consistent with recommendations in the agile methods literature (Jovanović et al., 2020; Schuch et al., 2020). Within the IT department, responsibilities for disseminating agile culture are clearly defined. As noted by the interviewees, agile teams possess a broad understanding of organizational needs, although not necessarily of the organization as a whole.

[...] We are using Agile to drive the agile transformation itself through cycles and experiments. The plan was developed by the IT department (Executive 1).

Relational mechanisms — measurement and performance. Although governance structures, roles, and responsibilities are well established within the IT department, they have not yet been formally defined across the business units. As a result, Organizational Agility has developed progressively through the voluntary participation of individual business areas. Importantly, learning generated through agile projects has fostered a broader organizational culture of problem solving, exemplified by the adoption of PDCA (Plan–Do–Check–Act) cycles by cross-functional teams composed of business, IT, and partner organizations. In this context, the organization recognizes the need for greater involvement from the Human Resources function to facilitate the organization-wide dissemination of agile culture.

[...] Within IT, this transformation is more actively encouraged, but the organizational culture also needs to change. Human Resources should really be leading this effort; we're beginning to see some movement in that direction" (Executive 2).

Project performance is measured using heterogeneous criteria, with each agile initiative evaluated according to its specific objectives. This reflects Alpha's organizational structure, which comprises multiple vertically organized business units that independently decide how to implement agile practices according to their particular business needs, thereby increasing the speed of agile adoption. However, this decentralized implementation also requires a more holistic performance measurement system that extends beyond traditional financial indicators.

[...] We assess the required effort, estimate the scope, and evaluate the expected return on investment. Together with the business unit, we conduct a feasibility analysis of the project based on ROI assessment (Executive 1).

Processes — resource and risk management. Alpha manages its resources by applying elements of the agile framework, allocating the dedicated capabilities required to continuously develop and deliver high-value solutions. The adoption of DevOps, which belongs to the Team and Technical Agility competency, enables value delivery by increasing both the frequency and quality of deployments whenever business units request agile projects. Furthermore, the organization has established a risk management process that monitors agile projects throughout their entire lifecycle, supporting the development of large-scale solutions.

[...] There is a major initiative called Gama (in addition to the planned business projects). The IT directors meet with the managers to define priorities and execution through DevOps (Executive 4);

[...] Today we have three lines of risk assessment: Information Security, Cybersecurity Risk, and Internal Audit, which are responsible for managing the organization's risk policy (Executive 1).

Structures — roles and responsibilities. Regarding roles and responsibilities, the organization benchmarked governance structures adopted by other organizations and adapted them to Alpha's specific context. Agile teams were then established and integrated into the organization's various projects to disseminate agile practices. In other words, teams were assembled to address the specific needs of individual business units. Consequently, roles and responsibilities are closely associated with the Lean-Agile Leadership competency, in which effective leadership ultimately provides the foundation for the adoption and success of Lean-Agile development and for mastering the competencies that drive business agility.

[...] Based on industry best practices, adapted to the needs and reality of Alpha's IT department, we defined the roles and responsibilities required for IT operations. Communication takes place through our existing channels, including events, internal communications, and internal documentation (Executive 1).

Processes — execution. Alpha manages project execution through team-based processes, such as Scrum, ensuring value delivery by cross-functional, self-organizing teams operating within the SAFe framework. The organization is currently investing in employee training to disseminate best practices and foster an execution-oriented culture based on agile principles, particularly the Agile Product Delivery and Team and Technical Agility competencies of the SAFe framework.

[...] We have Scrum Masters who are able to disseminate agile practices. These champions have both the judgment and the capability to apply agile practices across the organization during project execution (Executive 1).

Conclusion

This study investigated how IT governance can contribute to building an agile organization. Based on the proposed model, it demonstrated the integration of IT governance domains and mechanisms with an agile framework. Furthermore, the case study of Alpha provided an opportunity to examine how the relationships between IT governance domains and mechanisms interact with the elements of the agile framework. The findings suggest that the proposed model represents a viable approach for integrating IT governance with an agile framework and can therefore support the development of an agile organization. In this regard, the study extends the literature on IT governance (Khalil & Belitski, 2020) and agile methods (Chen et al., 2014; Dybå & Dingsøyr, 2008; Ravichandran, 2017; Rohunen et al., 2010; Sidky et al., 2007; Tallon & Pinsonneault, 2011; Tallon et al., 2019; Vejseli et al., 2018).

The findings indicate that developing the capabilities required for an agile organization is fundamentally a process of organizational culture transformation involving both IT and business functions. The first stage consists of establishing strategic alignment between IT and the business while defining the roles and responsibilities of the IT function. Within this context, the dissemination of agile culture at Alpha originated within the IT department, whose responsibility was to generate success stories through agile practices, engage business units, and promote the adoption of agile principles throughout the organization. Consistent with previous research on agile methods (Rohunen et al., 2010), Alpha adopted a bottom-up approach to initiate its agile transformation.

Accordingly, this study analyzed the proposed model, drawing on documentary evidence and interviews, to examine how IT governance supports the implementation of the agile framework. The principal findings are summarized as follows:

- (i) To build an agile organization, IT governance — through its domains and governance mechanisms — plays a fundamental role in enabling the integration of agile framework practices.
- (ii) The proposed model provides a structured roadmap for developing an agile organization. Although the case study revealed bottom-up implementation initiatives, the overall transformation strategy was defined using a top-down approach, whereby senior leadership established credibility and provided funding for operational agile initiatives. The strategic governance domain and process mechanisms demonstrated that business-IT strategic alignment must occur across all organizational levels.
- (iii) A bottom-up strategy for disseminating agile practices generates immediate value through agile projects, as also reported by Rohunen et al. (2010). However, such a strategy may also lead to an uneven diffusion of agile culture across the organization as a whole.

- (iv) Organizations should establish processes that effectively cascade business and IT strategy throughout all organizational levels. Furthermore, agile initiatives should be guided by systemic and holistic perspectives that prioritize benefits for business models, product and service portfolios, and business processes.

The integration of IT governance and agile practices provided the organization with greater flexibility and speed in developing information systems, thereby generating value for both the organization and its customers, consistent with previous findings (Vejseli et al., 2018). More importantly, this integration strengthened organizational capabilities that enhanced performance, including improved responsiveness to the needs and expectations of internal and external customers, greater predictability in project delivery, and higher-quality outcomes achieved through agile practices that increased both value creation and returns on project investments, whether financial or non-financial. Overall, the findings demonstrate that IT governance, together with the practices embodied in the agile framework, develops the organizational capability required to respond effectively to market demands and continuously reconfigure organizational processes, ultimately leading to superior performance. These findings are consistent with recent studies (Khalil & Belitski, 2020; Mikalef & Pateli, 2017; Ravichandran, 2017) that conceptualize IT as a driver of organizational capabilities and performance, thereby extending the literature on IT capability.

From a practical perspective, this study highlights the importance of carefully planning the implementation of agile practices and identifies IT governance as a viable approach for structuring the development of an agile organization.

Senior executives should clearly understand the mechanisms and domains of IT governance in order to design, formulate, and execute strategies for implementing agile practices. For example, they should carefully evaluate the advantages and disadvantages of alternative approaches for introducing and disseminating agile culture, whether through bottom-up, top-down, or hybrid implementation strategies.

In this context, IT governance establishes the mechanisms required for planning, executing, and monitoring agile projects. Consequently, organizations should develop appropriate indicators and performance metrics to assess project outcomes, realized benefits, and overall organizational performance, including both financial and non-financial dimensions.

Another critical factor in building an agile organization is the establishment of a clearly defined structure of roles and responsibilities that enables each organizational unit and its members to understand how they contribute to business development through the effective use of IT resources and capabilities. In this respect, IT governance plays a central role by promoting both holistic and systemic perspectives on agile initiatives.

Finally, the findings indicate that organizational agility is not achieved merely by adopting an agile framework. Rather, it requires the deliberate development of IT capabilities that enable agility in a planned and systematic manner. Accordingly, it is through the mechanisms and domains of IT governance that agile framework approaches can be effectively integrated into the organization.

Despite its theoretical and empirical contributions, this study has limitations that also point to promising directions for future research. Because it is based on a single case study conducted in an emerging economy, the findings cannot be generalized. Future research could strengthen the analytical robustness of the proposed model by conducting multiple case studies across different industries, such as manufacturing, education, and healthcare, as well as organizations of varying sizes. In addition, future studies should develop and validate a quantitative measurement scale based on the proposed model, thereby enabling large-scale empirical testing of the relationships among IT governance, agile practices, and organizational performance. Longitudinal studies are also needed to examine how agility-related capabilities evolve over time. Furthermore, incorporating the perspectives of employees at operational levels, together with comparative studies between developed and emerging economies, may provide deeper insights into the role of cultural change and institutional context in shaping the integration of IT governance and organizational agility.

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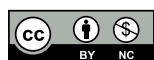
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