

# **DBA**

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**IN MANAGEMENT AND TECHNOLOGY**

Universidad Pontificia Comillas

## **Doctorate of Business Administration in Management and Technology**

### **“Hard Systems, Soft Foundations”: How Human Resource Management and Intellectual Capital enable ambidexterity. An analysis based on the EFQM Model**

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To Olga – for always being there.

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# Thesis summary

## I Abstract

Organisations operating in volatile, uncertain, complex, and ambiguous (VUCA) environments face persistent tensions between sustaining performance and driving transformation and innovation. Building on the exploration–exploitation distinction, this thesis conceptualises this tension as a challenge of organisational ambidexterity. Organisational ambidexterity has been widely studied as a key dynamic capability to address this tension, yet there is comparatively limited empirical research on how it is built in practice from a human resource management and intellectual capital perspective.

This DBA thesis investigates how organisations build ambidexterity at the organisational level through the interaction between human resource practices as context-shaping mechanisms and specific intellectual capital configurations. Drawing on a dataset of more than 300 Spanish organisations assessed under the EFQM Model, the study adopts a mixed-method design. It combines AI-assisted large-scale content analysis, in-depth qualitative thematic analysis, and a quantitative prioritization of 23 ambidexterity-relevant intellectual capital factors using the Analytic Network Process (ANP) with an expert focus group.

The findings reveal a systematic predominance of formal “hard” systems—such as management systems frameworks, operational models, organizational designs, new ways of working, and traditional HR architectures—which are largely oriented toward exploitation. In contrast, expert practitioners prioritise “soft” relational capital factors, including collaborative culture, leadership behaviours, and psychological safety, as critical conditions for enabling ambidexterity. This divergence between

implementation patterns and perceived importance is conceptualized in this thesis as an “inversion of value.”

The thesis develops a recursive interaction model that proposes that hard systems initiate and scale change, while relational capital mediates learning, adoption, and the sustainability of transformation initiatives. The findings offer a theoretically informed framework and practical guidance for C-suite executives and HR leaders seeking to develop ambidexterity as a sustainable organisational capability.

## I . Introduction

This research addresses a central challenge faced by contemporary organisations operating in volatile, uncertain, complex, and ambiguous (VUCA) environments: how to sustain performance while continuously adapting and innovating. VUCA conditions are increasingly treated as a structural feature of organisational life, placing sustained pressure on firms to deliver short-term results while pursuing continuous adaptation and innovation (Bennett and Lemoine 2014).

Traditional management approaches, largely oriented toward performance optimisation, efficiency, scale, and control, tend to be less effective for exploitation but are suited to supporting exploration, adaptability, innovation, learning, and renewal. Within this context, organisational ambidexterity has gained prominence as a capability that enables organisations to balance and manage exploitation and exploration.

Despite significant investments in management systems, governance structures, digital platforms, and human resource architectures, many organisations continue to struggle to sustain agility, adaptability, innovation, and exploration.

At the same time, the strategic relevance of the Human Resources (HR) function continues to be questioned, despite expanding expectations related to culture, leadership, engagement, and change management. HR is increasingly expected to

contribute to organisational transformation, yet its impact is often constrained by its traditional focus on stabilization and individual capability development (Minbaeva 2021).

The EFQM Model provides an appropriate empirical setting to examine these challenges. Its explicit emphasis on “Managing Performance and Transformation” (Criterion 5) aligns closely with the core concerns of organisational ambidexterity and reflects the evolving expectations placed on excellence-oriented organisations.

Academically, this research builds on three interrelated streams of literature: organisational ambidexterity, strategic human resource management, and intellectual capital.

First, the ambidexterity literature highlights the fundamental tension between exploitation and exploration and distinguishes mainly between structural and contextual approaches to managing this paradox, alongside sequential and multilevel perspectives. While structural ambidexterity relies on the separation of exploratory and exploitative activities into distinct units, contextual ambidexterity emphasises the role of organisational context, leadership, and behavioural integration (Bennett and Lemoine 2014; Birkinshaw and Gibson 2004; March 1991; O'Reilly and Tushman 2004; Raisch et al. 2009; Tushman and O'Reilly III 1996).

Second, strategic HRM literature emphasises the role of high-performance work systems in shaping organisational outcomes, increasingly positioning HR as a contextual enabler that shapes human and social capital rather than as a direct producer of specific capabilities (Huselid and Becker 1995).

Third, the intellectual capital literature conceptualises organisational capabilities as emerging from the interaction of human, organisational, and relational capital, and often treats intellectual capital as an intermediary between managerial practices and organisational performance (Nahapiet and Ghoshal 1998; Youndt and Snell 2004).

Despite these advances, important gaps remain in understanding the mechanisms by which HR practices and intellectual capital jointly support ambidexterity. First, there is still relatively limited empirical work that traces how specific HR practices translate into organisational ambidexterity in practice, beyond broad correlations (Swart 2006). Second, we know comparatively less about how specific configurations of human, organisational, and relational capital operate within organisations to enable ambidexterity (Kostopoulos et al., 2015). Third, existing studies provide only partial explanations for why exploration and adaptability remain fragile even in organisations recognised for high levels of managerial excellence.

Many studies establish statistical relationships between key constructs but offer limited insight into the practical mechanisms and configurations through which ambidexterity is built and sustained in organisations (Raisch et al., 2009; O'Reilly III & Tushman, 2013).

To address these interrelated gaps, this dissertation is guided by three research questions:

**RQ1:** How are intellectual capital and its components (human, organisational, and relational capital) associated with the development of ambidextrous capabilities at the organisational level?

**RQ2:** How do human resource practices create organisational contexts that enhance intellectual capital and organisational learning capacity, thereby supporting ambidexterity?

**RQ3:** How do EFQM-recognised organisations implement and attempt to consolidate ambidexterity as an organisational capability in practice, particularly through the interplay between formal systems and relational conditions?

Together, these questions frame an integrated study of ambidexterity as an organisational capability grounded in HR practices and specific configurations of intellectual capital.

## II . Research Methodology

This DBA thesis adopts a mixed-methods research design to capture the complexity of organisational ambidexterity as an organisational capability. Given the nature of the research questions—focused on understanding *how* ambidexterity is configured and enacted in practice—a combination of qualitative and quantitative approaches is both appropriate and necessary.

The study follows a sequential mixed-method design with a QUAL–QUAN logic and integrative intent (Doyle et al. 2009). The qualitative phase provides an in-depth understanding of organisational practices and patterns related to human resource management, intellectual capital, and ambidexterity. The subsequent quantitative phase builds on these insights by using the Analytic Network Process (ANP) to prioritise the relative importance of the identified factors. This sequential design is suited to investigating complex organisational phenomena in which interdependencies and context-specific dynamics are expected, but difficult to capture with a single method.

The primary data sources consist of EFQM formal memories and EFQM assessment reports from more than 300 Spanish organisations, covering the period 2021–2024, all produced within the EFQM assessment process. The dataset provides extensive qualitative information on managerial practices related to performance management, transformation initiatives, human resource practices, and intellectual capital development. The EFQM Model represents a particularly relevant empirical context, as it explicitly integrates the dual challenge of managing performance and transformation (Criterion 5), which closely aligns with the core concerns of organisational ambidexterity in excellence-oriented organisations (Fonseca 2022).

The qualitative phase was conducted in two complementary and sequential stages. First, an AI-assisted exploratory content analysis was employed to manage the scale and complexity of the extensive textual dataset. Prompt-based queries were used to extract segments related to ambidexterity, HR practices, and intellectual capital, which were then manually reviewed to ensure relevance and coverage. AI was used strictly as a support tool for data reduction and pattern detection, not as an interpretive authority. All analytical decisions, coding choices, and interpretations remained under the researcher's direct control, and random audits of all AI-assisted extractions were conducted to ensure accuracy and consistency.

Second, an in-depth thematic analysis was conducted using NVivo 15 on a purposive subsample of 135 organisations that scored above 500 points in the EFQM assessment, a threshold that EFQM associates with high levels of management excellence. This subsample was used to focus on organisations with more advanced management systems. Through iterative coding and refinement, recurring themes and subthemes were identified and consolidated into 23 factors related to intellectual capital. These were grouped into three -human capital, organisational capital, and relational capital- providing a structured qualitative framework for subsequent analysis.

The quantitative phase consisted of expert-based prioritisation of the 23 identified intellectual capital factors using the Analytic Network Process (ANP) with Superdecisions software. A panel of twelve senior executives and HR leaders served as domain experts in the ANP evaluation process.

ANP was selected because it allows the modelling of interdependencies among factors, which is particularly relevant when analysing intellectual capital and ambidexterity as systemic, mutually reinforcing constructs (Saaty and Vargas 2006). The results enabled the identification of the relative importance that experts attribute to each factor in supporting organisational ambidexterity.

The methodological approach is strengthened by several factors. First, triangulation across data sources (formal memories and assessment reports) and methods (qualitative and quantitative) enhances the credibility and trustworthiness of the findings. Second, the inclusion of external assessment reports, in addition to EFQM formal memories, introduces an independent perspective on organisational practices. Finally, the scale and real-world nature of the dataset enable the study to identify patterns of managerial practice across a wide range of excellence-oriented organisations, thereby supporting the empirical relevance and practical applicability of the results.

### III . Results

Related to RQ1 – Intellectual Capital

The findings indicate uneven development across the three components of intellectual capital. Organisational capital appears as the most formalised and extensively documented dimension in the EFQM materials. The analysis identifies widespread use of management systems, governance structures, process frameworks, performance indicators, and digital platforms, as reported in the EFQM documents, supporting consistency, efficiency, and control.

Human capital is also extensively addressed at a foundational level. Organisations frequently report substantial investments in training, leadership development, and competency management. However, the emphasis is predominantly on current capability requirements, with weaker representation of future-oriented and exploratory competencies in the documents analysed.

Relational capital, by contrast, is less formalised and more unevenly described. While references to collaboration, leadership behaviours, trust, inclusion, and internal relationships appear across the dataset, they are less systematically structured and less embedded in formal management practices.

The ANP results provide an additional quantitative perspective on these findings. When asked to prioritise the 23 identified intellectual capital factors, expert practitioners consistently ranked relational capital as the most important set of factors for supporting organisational ambidexterity. This contrast between documented patterns and expert prioritisation is captured by the notion of an “inversion of value,” which highlights a divergence between what organisations formally emphasise and what experts perceive as strategically most important.

#### Results related to RQ2 – Human Resource practices

The analysis reveals a strong and consistent presence of formal human resource systems in the EFQM documentation of the organisations examined. HR practices are predominantly described as structured around training and development programmes, performance appraisal systems, competency frameworks, leadership assessment processes, and succession planning mechanisms. These practices are typically presented as standardised and auditable, and as aligned with organisational governance and performance management requirements.

The findings indicate a strong emphasis on developing individual human capital. HR initiatives are primarily described as enhancing employees’ skills, knowledge, employability, and performance at the individual level. While these practices are framed as supporting stability, reliability, and capability accumulation, the EFQM documents show limited explicit orientation toward collective learning, cross-functional collaboration, or relational capability development.

References to HR practices explicitly aimed at fostering relational and collective capabilities—such as collaborative cultures, psychological safety, and systematic mechanisms for knowledge sharing—are comparatively less frequent. Taken together, HR is portrayed in the analysed organisations mainly as a stabilising

function, reinforcing performance and exploitation, rather than as a direct enabler of exploration and adaptability.

#### Results related to RQ3 – Ambidexterity implementation

The findings related to ambidexterity implementation indicate that organisations primarily frame and operationalise ambidexterity through formal organisational architecture. Ambidexterity is operationalised through governance systems, strategic planning processes, KPIs, dashboards, and project-based transformation initiatives as described in EFQM materials. These mechanisms are presented as central tools for coordinating and scaling change efforts, but are largely oriented toward incremental improvement and exploitation.

A noticeable bias toward exploitation emerges from the EFQM documentation analysed, with exploration activities often embedded within existing structures rather than supported through dedicated relational or cultural mechanisms. Relational and cultural factors are frequently highlighted in EFQM assessment reports as areas for improvement, which points to these dimensions as recurring weaknesses in efforts to consolidate ambidexterity.

#### Integrative insight

Taken together, the findings reveal a misalignment between what organisations formally emphasise and what experienced managers prioritise. While organisations predominantly emphasise formal systems and structures in their EFQM documentation, experienced managers identify relational and social mechanisms as the most important enablers of ambidexterity. The results support a view of ambidexterity as a process that is shaped by the interaction between “hard” organisational architectures and “soft” relational foundations.

## IV Conclusion

Taken together, the results suggest that ambidexterity is unlikely to arise from the primacy of either formal systems or cultural foundations alone, but rather from their coordinated interaction over time as perceived by practitioners.

A central conclusion of the study is that ambidexterity appears to rely simultaneously on “hard” organisational systems and “soft” relational foundations. Formal management architectures—such as governance structures, performance management systems, strategic planning processes, and HR frameworks— are described as providing the structural capacity to initiate and coordinate transformation. These systems are widely used to support alignment, scalability, and accountability and are perceived as essential for sustaining performance and exploitation. However, when they operate in relative isolation from relational and cultural mechanisms, they tend to privilege stability and incremental improvement, which may limit their capacity to support sustained exploration and adaptability.

The findings further indicate that hard systems play a prominent role in triggering and scaling change initiatives in the organisations studied, as reported in the EFQM materials. They are described as translating strategic intent into coordinated organisational action and as providing mechanisms for deploying transformation efforts. Nevertheless, their effectiveness appears strongly conditioned by relational factors that support learning, adoption, and behavioural change, as emphasised by the expert panel and EFQM assessments. In their absence, transformation efforts risk remaining largely procedural rather than capability-building and fully integrated into the culture.

Relational capital emerges as a central mechanism in this process. Elements such as collaborative culture, leadership behaviours, trust, inclusion, and psychological safety are seen to facilitate the recombination of individual knowledge and formal structures into collective learning and adaptive action. Relational capital does not replace hard systems; rather, it strongly influences the extent to which those systems

are adopted, absorbed, internalised, and sustained over time. In this sense, relational capital appears central to consolidating the exploration dimension of ambidexterity.

The discussion also clarifies the strategic role of the Human Resources function. Rather than acting primarily as a “programme owner” or implementer of isolated initiatives, HR’s most significant strategic potential lies in its architectural role: designing, aligning, and integrating hard systems and soft foundations into coherent capability-building configurations. This positioning shifts HR conceptually from a predominantly stabilising support function toward a strategic enabler of organisational ambidexterity.

Finally, the study addresses the hard–soft paradox by adopting a recursive interaction perspective. In this perspective, ambidexterity is neither conceptualised as the result of linear sequencing nor as an either–or choice between systems and culture. Instead, it is understood as emerging through an ongoing recursive process in which hard systems enable action and scale, while soft relational mechanisms support learning, adoption, and sustainability. This perspective offers a coherent way of understanding why ambidexterity remains difficult to attain and provides a grounded framework for developing it as a sustainable organisational capability.

## V Limitations and strengths

This dissertation presents several methodological and empirical strengths that enhance the credibility and practical relevance of its conclusions. One of its main strengths lies in the scope and specificity of the dataset, which comprises more than 300 Spanish organisations operating under the EFQM Model. The combination of organisational self-reported formal memories and external EFQM assessment reports provides a detailed and multi-perspective view of managerial practices related to ambidexterity, human resource management, and intellectual capital. This dual-source design strengthens the credibility of the findings by allowing internal

narratives to be contrasted with external evaluations within the same assessment framework.

A further strength of the study is its methodological triangulation. The integration of AI-assisted content analysis, in-depth thematic analysis, and a quantitative prioritisation process using the Analytic Network Process enables the exploration of complex organisational phenomena from complementary analytical perspectives. This mixed-method approach enhances the analytical rigour and practical relevance of the study. Additionally, the strong practitioner orientation of the research—grounded in real managerial practices and expert judgment—reinforces its applicability for executives, HR leaders, and organisations facing transformation challenges.

At the same time, several limitations must be acknowledged. The exclusive focus on EFQM organisations may introduce a bias toward formal systems, governance structures, and performance-oriented practices, as these elements are central to the EFQM assessment logic. This focus may underrepresent alternative organisational forms or less formalised approaches to ambidexterity. The Spanish context of the dataset limits the generalisability of the findings to other institutional, cultural, or regulatory environments. Moreover, the cross-sectional nature of the data restricts the ability to capture the dynamic evolution of ambidexterity over time. Finally, while the expert-based ANP prioritisation provides valuable insight, it reflects the judgments of a limited group of practitioners and may be subject to contextual or experiential bias, as well as the inherent subjectivity and lack of statistical testing associated with ANP-based expert judgments.

Future research could address these limitations through longitudinal studies that track the development of ambidexterity over time, cross-country comparisons to explore contextual and cultural differences, and action research designs that allow direct observation of hard–soft integration processes in practice. In-depth case

studies of highly ambidextrous organisations would further enrich understanding of how ambidexterity is sustained as an organisational capability.

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## 1. Introduction

### 1.1 Personal and professional motivation

The DBA journey is challenging and full of experiences and learning. A long professional career in top management positions gives you the experience and the criteria to confront different types of problems and situations, resolving them properly in line with management expectations. This executive acumen and the confidence you gain from accumulated experience are probably your strongest assets as a manager.

However, when you decide to start a DBA program and the process of analyzing and resolving an academic question using the research method from the “practitioner” perspective and mental model, you enter an unexplored world full of doubts and challenges, but also an extraordinary, complete “learning experience”.

After more than 30 years of management experience in two “family-owned” organizations, very close to the people making the big decisions, and with a background of experience in several corporate functions, such as HR, Sustainability, and Quality, but with a clear origin in People and Culture management, the basic and profound reason to complete the DBA has been to make a relevant contribution to the HR field combining the “professional experience” with the “academic research process” that a DBA program offers.

Throughout my professional career, among colleagues, HR professionals, vendors, and consultants in the HR field, and even in other management areas, the conversation and aim have been to become a more strategic business function. Most of the time, from a negative and lacking perspective. However, my personal impression has always been that, not for a lack of talent or intent, but more from historic and structural reasons, the HR function has not achieved this strategic role within the C-Suite, becoming otherwise an “expert”, technical, and delivery function oriented to deliver people and staff-related

services to the rest of the organization. These professional tensions—between expectations placed on HR and its limited strategic influence—form the practical problem that this dissertation seeks to address through rigorous academic inquiry.

In recent years, and more vividly since the COVID pandemic in 2020, HR professionals have been exposed to an ultra-VUCA context, with strong transformation pressures in our organizations and higher stakes from our colleagues, CEOs, and boards to deliver responses and solutions to these transforming challenges. This is the origin of this DBA thesis that tries to offer HR-based, academically relevant, research-proven, and practical insights to managers and organizations that need to develop stronger dynamic capabilities as organizational ambidexterity to compete and outperform in VUCA contexts.

## 1.2 The strategic challenge of HR relevance in VUCA contexts

Following this internal motivation and personal experience, I started my academic reading effort, studying how academia is analyzing this disruption phenomenon in the HR field (Becker and Huselid 2006; Bos-Nehles, Anna et al. 2017; Bos-Nehles, Anna C. and Veenendaal 2019; Bowen and Ostroff 2004; Brockbank 1999; Cappelli and Tavis 2016; Claus 2019; Cohen 2007; Collings and Mellahi 2009; Denisi and Smith 2014; Harney and Collings 2021; Lawler III and Boudreau 2015; Minbaeva 2021; Striteska and Spickova 2011; Ulrich et al. 2013; Ulrich and Dulebohn 2015; Ulrich 2016; Zhang-Zhang et al. 2022), and at the same time, reading about a management buzzword that has gained big traction as a response to context complexity and volatility, that is “business agility” and how it has been analyzed in academia (Acharya and Colomo-Palacios 2019; Appelbaum et al. 2017a; Appelbaum et al. 2017b; Ashrafi et al. 2005; Breu et al. 2002; Campanelli and Parreiras 2015; Costa Junior and Nunes 2023; Crocitto and Youssef 2003; Dikert et al. 2016; Felipe et al. 2016; Francis 2001; Giachetti et al. 2003; Gregory et al. 2016; Harraf et al. 2015; Holbeche 2019; Huuemonen 2011; Lin et al. 2006; Mollet and Kaudela-Baum 2023; Paasivaara et al. 2018; Rad and Rad 2021; Ragin-Skorecka 2016; Sidky 2007; Sommer 2019; Sořta-Drączkowska 2018; Verma 2023).

VUCA context undoubtedly is transforming organizations and their management practices and is creating the “burning platform” necessary to open the minds of boards and executive committees to explore and adopt new organizational designs, ways of working, management systems, and technological platforms, and at the same time, there is a growing interest in reinforcing “soft foundations” as cultural issues, people management, psychological safety, relational capabilities, servant leadership.

However, most of the time, those intents are disconnected and function as separate settings for implementing transformation efforts; they are deployed from different organizational “silos” without an integrated perspective. And most of the time, the HR function, as a people expert, is relegated to “soft” initiatives disconnected from more strategic “change and transformation” programs.

Despite increased expectations placed on HR in VUCA contexts, organizations continue to struggle to translate people-centric initiatives into sustained strategic impact. HR interventions often remain disconnected from core transformation architectures, limiting their influence on organizational capabilities such as adaptability, innovation, and long-term performance.

The context seems favorable to reinforcing a humanistic perspective on management. There is increasing awareness among top decision-makers in organizations that this adaptation and agility effort will not succeed if all stakeholders, especially those working in the organization, are not fully engaged and “on board” in this transformation. And this is a great strategic opportunity for the People “experts”, HR managers, and their teams.

### 1.3 Ambidexterity as a managerial and organizational response to compete and differentiate in VUCA contexts

Business agility reading led me to “organizational ambidexterity” or “ambidextrous organization” as the dynamic capability that enables organizations to balance (and manage simultaneously) exploitation and exploration. This discovery of a semi-unknown concept in the practitioner world has been highly relevant to this dissertation, as it offers

a broader, more complete answer to VUCA contexts than even the agility frameworks do.

With more than 30 years of academic research, ambidexterity is a way to integrate, at the organizational level, both the efficiency, productivity, scale, and quality requirements necessary to achieve economic and non-economic results in the actual markets, businesses, and operations of those organizations (i.e., exploitation), as well as innovation, adaptability, agility, and those so-called exploration elements that jointly define ambidexterity as a dynamic organizational capability.

Ambidexterity, as defined by its seminal authors (Duncan 1976; March 1991), is explained as the need to introduce innovation in a structural and cultural way into organizations and has been deeply analyzed from very different perspectives and authors, as we will present in the literature review chapter, as a paradoxical management challenge.

The past century's management paradigms have exerted a great influence on the “exploitation” side of the management, but the actual acceleration of volatility, complexity, uncertainty, and ambiguity has exerted great pressure on the need to enhance and develop the exploration side of the management, creating an increasing interest in ambidexterity as a sound and relevant managerial response to VUCA contexts.

As we will further see, there is a great corpus of research and literature about ambidexterity, alternative approaches to the construct as organizational and contextual ambidexterity, a great number of studies that positively relate ambidexterity with business results and their sustainability, and a significant number of papers and studies with the mediating role of HR policies and practices. While conceptually and theoretically compelling, ambidexterity remains difficult to institutionalize in practice, particularly in exploration and transformation capabilities.

Additionally, as shown in Figure 1, ambidexterity is strongly related to an organization's learning capabilities. This insight puts into action the other key academic construct in this dissertation: Intellectual Capital (IC).

IC is the intangible asset related to an organization's stock of knowledge and know-how, and to its learning capacity to restore and update that knowledge. HR practices and policies create the context to enhance IC and its second-tier elements -Human Capital, Organizational Capital, and Relational Capital-, and its configurations – that mediate and enable ambidexterity at an organizational level.

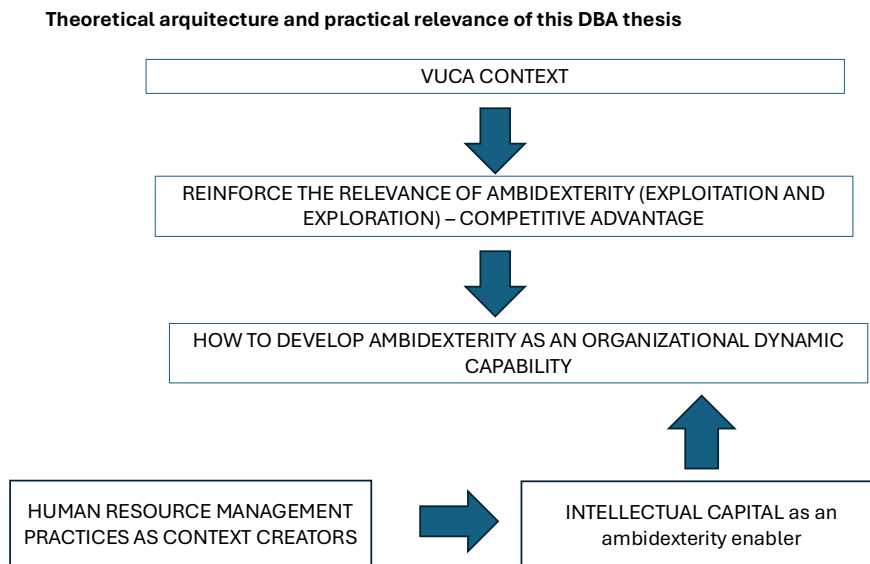


Figure 1: Theoretical architecture and practical relevance of this DBA Thesis

#### 1.4 Research gap and research questions

At this point, the general framework of the dissertation and the match between my personal internal motivation and purpose, the academic relevance of the identified themes (Ambidexterity, High Impact Human Resource practices as context creators, and Intellectual Capital with its three second-tier clusters), and, besides, the practical and material urgency to transform the organizations to become much more ambidextrous to compete in a changing business world converge on this dissertation.

The aim of this dissertation is to analyze how organizations develop ambidexterity as an organizational capability through the interaction of Human Resource practices and Intellectual Capital configurations, and to explain why exploration remains fragile even in organizations with high levels of managerial excellence.

More specifically, the research seeks to understand:

- how HR practices create the organizational context for ambidexterity,
- how the different components of Intellectual Capital mediate the development of ambidextrous capabilities,
- and how ambidexterity is implemented and consolidated in practice in excellence-oriented organizations.

A DBA thesis project aims to be both academically and practically relevant. The literature shows a broad consensus that limited research has examined the nexus between HR management and ambidexterity development as a dynamic capability (Garaus et al. 2016; Hansen et al. 2019; Jorgensen and Becker 2017) . The prevailing assumption is that HRM practices can support ambidexterity; what remains to be fully understood is “how” this relation functions. This academic “research gap” serves as the basis for the three interrelated research questions I propose to answer through this DBA dissertation.

- **RQ1:** How are intellectual capital and its components (human, organizational, and relational capital) associated with the development of ambidextrous capabilities at the organizational level?
- **RQ2:** How do human resource practices create organizational contexts that enhance intellectual capital and organizational learning capacity, thereby supporting ambidexterity?
- **RQ3:** How do EFQM-recognized organizations implement and attempt to consolidate ambidexterity as an organizational capability in practice, particularly through the interplay between formal systems and relational conditions?

This academic approach, through the research questions, seeks, as well, findings that can be translated into practical frameworks and business practices to help HR managers and management teams transform their organizations into more ambidextrous organizations.

This research could not have been possible without a precious and relevant “data set”. Access to data is the first thing you hear as a “must” when you enter a doctoral program

as a DBA. Probably, the opportunity of having worked with the EFQM Model, the 2020 new release of the model with a strong orientation to develop a management framework to make European organizations competitive in a VUCA world, introducing a new criterion entitled “managing performance and transformation” with a direct conceptual and material link with the ambidexterity academic concept; has been the big finding that has allowed to deal confidently with this dissertation. While EFQM organizations represent a specific segment of management maturity, they provide a particularly rich context for examining ambidexterity in practice.

Thanks to the generosity of “Club Excelencia en Gestión,” I have had access to a robust dataset of more than 300 Spanish organizations' management practices related to ambidexterity, HR practices, and Intellectual Capital frameworks and initiatives, which has enabled this research.

### 1.5 Main academic and practical contributions

This dissertation makes four interrelated contributions to academic literature and to management practice by advancing understanding of how organizations develop ambidexterity as an organizational capability through Human Resource practices and Intellectual Capital configurations.

First, from a substantive perspective, the dissertation provides large-scale empirical evidence on how ambidexterity is articulated, implemented, and assessed in practice within excellence-oriented organizations. Drawing on a unique dataset of more than 300 Spanish organizations following the EFQM Model and combining organizational self-narratives in formal EFQM Memories with independent assessment reports of those same organizations, the research offers a rare, practice-based view of how HR practices, management systems, and intellectual capital initiatives are deployed to manage performance and transformation simultaneously. This contributes to closing the gap between ambidexterity theory and its practical enactment in real organizational settings.

Second, the dissertation makes a conceptual contribution by identifying and theorizing a structural misalignment between organizational investment patterns and the factors

expert practitioners perceive as most critical for ambidexterity. While organizations predominantly invest in “hard” systems that reinforce human and organizational capital, experienced managers prioritize “soft” relational capital factors—such as collaborative culture, leadership behaviors, trust, and psychological safety—as decisive enablers of ambidexterity, particularly on the exploration side. This “inversion of value” helps explain why exploration remains fragile even in organizations with high levels of managerial maturity. Building on this insight, the dissertation advances a recursive hard–soft interaction model, proposing that ambidexterity emerges not from linear sequencing, but from the sustained interaction between formal organizational architectures and relational and cultural foundations over time.

Third, the dissertation contributes theoretically to the Intellectual Capital and ambidexterity literature by empirically identifying and structuring twenty-three Intellectual Capital factors across Human Capital, Organizational Capital, and Relational Capital. The findings reinforce the role of relational capital as a mediating mechanism that enables the adoption, absorption, and recombination of individual capabilities and formal systems into collective learning and adaptive organizational action, thereby extending existing configuration-based perspectives on ambidextrous learning.

Fourth, from a methodological perspective, the dissertation demonstrates the value of an innovative mixed-methods design combining AI-assisted large-scale content analysis, qualitative thematic analysis using NVivo, and expert-based multi-criteria decision-making using the Analytic Network Process (ANP). This approach enables the systematic analysis of complex, text-intensive organizational phenomena at scale, while integrating practitioner judgment to prioritize the relative importance of intellectual capital factors for ambidexterity. The methodological design strengthens the robustness, triangulation, and practical relevance of the findings and offers a replicable approach for future research on organizational capabilities.

Taken together (see Figure 2), these contributions advance scholarly understanding of ambidexterity as a management-based organizational capability and provide actionable

insights for executive teams and HR leaders seeking to reconcile performance and transformation in volatile, uncertain, complex, and ambiguous contexts.

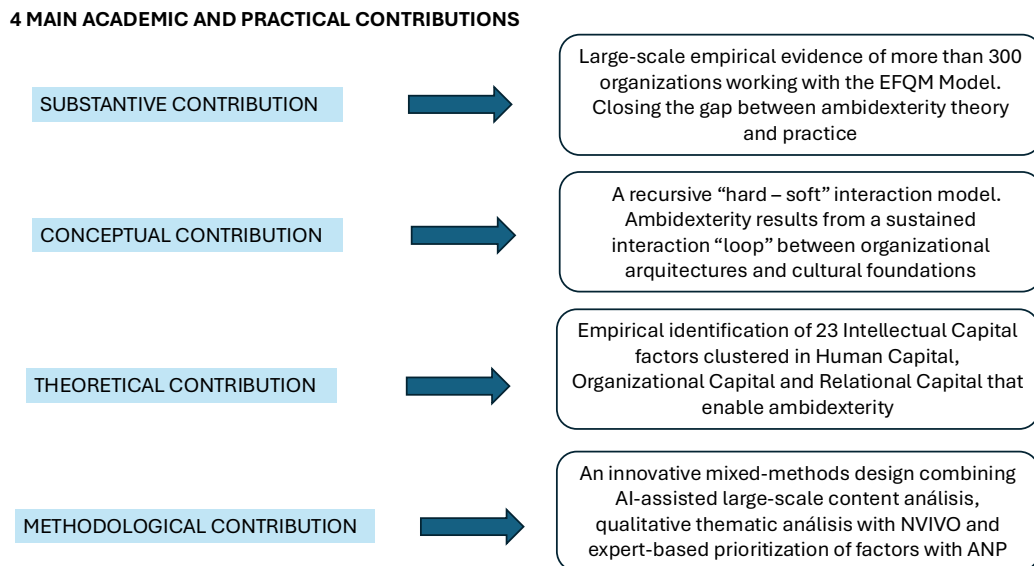


Figure 2: 4 main academic and practical contributions

## 1.6 Thesis structure

This DBA dissertation is structured in seven chapters. This introduction is followed by a literature review chapter that delves into the main management constructs presented in this dissertation, including ambidexterity as a dynamic capability, high-impact HR practices and their impact on context creation, the phenomenon of Intellectual Capital, and its elements. The third chapter explains the innovative mixed methodology (CUAL – CUAN) used to analyze the phenomenon using AI-supported content analysis of EFQM formal memories, and assessment reports, a profound thematic analysis with NVIVO, and the multi-criteria decision-making method (ANP) used with an expert group to prioritize the most relevant IC factors impacting on ambidexterity. Chapter 4 presents the most relevant findings in detail, followed by Chapter 5, which discusses them thoroughly. Chapter 6 summarizes the most relevant conclusions, including limitations and avenues for further research. Chapter seven comprises the literature references used across the dissertation.

## 2. Literature Review

### 2.1 VUCA Context and Business Agility

Change in the business world is not new; what is new and is changing dramatically is the acceleration of this change, its unpredictability, and its complexity. Business practice has referred to this phenomenon as the VUCA context. The U.S. Army War College coined the acronym to describe the “multipolar new world order” following the end of the Cold War, and it was later applied to the business environment (Taskan et al. 2022).

As the authors explain, the acronym VUCA refers to (V) volatility that could be characterized by terms as change, unpredictability, dynamic, or unstable; (U) uncertainty, explained with words as lack of information, unknown or unpredictable; (C) complexity related to terms as quantity of factors to analyse, relations between factors, confounding or chaos, confusion and finally (A) ambiguity as the inability to understand or interpret, lack of clarity, multiple interpretations, uncertainty and confounding.

The VUCA context affects the organization from multiple perspectives, underscoring the need for greater agility and adaptability. Thus, business agility becomes a relevant business buzzword to analyze, and this phenomenon constitutes a central entry point for understanding contemporary organizational dynamics.

Strategic agility, also known as business agility, emerges as a management response to the VUCA context. Business agility enables organizations to be flexible, adapt quickly to changes, and implement actions to mitigate market uncertainty and risk. A strategically agile firm can adapt its culture to market changes, learn about these changes rapidly, benefit from these changes, and tailor its products and services accordingly (Ahammad et al. 2020).

What is relevant to analyze is how to build business agility within strong legacy-based organizations with high management inertia. The forces of strategic agility have been grouped, in prior research, into three “meta-capability” vectors (Doz 2020):

Strategic Sensitivity: The sharpness of perception and the intensity of awareness and attention to strategic situations as they develop. Top Management Teams (TMT) have a clear role in training and practicing this capability.

Resource Fluidity: The capability to free resources from existing activities and redeploy them rapidly toward new growth opportunities. This capability is closely related to planning processes, such as annual planning and budgeting, as well as the application of business practices, including rolling forecasts and zero-based budgeting.

Collective Commitment: The ability of the top team and the organizational leadership to make and implement bold joint strategic decisions fast, without getting bogged down in “win-lose” politics, and to carry through implementation with high energy. Alignment, identity, and purpose become relevant in this field.

However, on the road to becoming more agile as an organization in an increasingly VUCA context, you must confront various tensions that significantly impact human resources (HR) policies and practices. Those main tensions are explained by Strode et al. (2022) who present a challenging managerial effort across various types of organizations, including a council, a university, and a charity, to navigate these tensions and develop the necessary capabilities to manage them.

The following tensions and paradoxes, along with their management, become crucial to achieving business agility (see Figure 3).



transformation activities and the need to align senior management control to promote and support operational adoption of agile practices.

Functional silos vs. cross-functional cooperation: Agility favors cross-functional cooperation, but the firm’s organizational structures and cultures are based on functional silos; i.e., production specialists, content providers, infrastructure, and support units operate independently. This tension concerns the balance between structuring and managing by functional groupings and by cross-functional teams.

Maintaining knowledge vs moving to new ways of working: A large amount of organisational knowledge was embedded in existing ways of working. There was concern that new ways of working might override valuable experience. The tension arises from deciding how much existing organisational knowledge and expertise needs to be retained when moving to new processes, and how to identify what is important enough to keep.

Changing too quickly vs changing too slowly: The organization needed to transform quickly enough to respond to the environmental threats it faced, while still allowing people to adapt. Also, the new strategy had to be approved by the Board of Trustees, who worked to a structured timetable. The tension lies between maintaining the momentum of change while allowing sufficient time for the changes to be accepted by both the trustees and staff.

How much to change vs. how much to keep stable: Changing too much at once can lead to instability. The tension arises from deciding how much to change and how much to keep stable at any given time.

Change for the short term vs. change for the long term: This tension emerged because immediate challenges required a short-term response. However, short-term changes can compromise long-term goals. For example, significant financial cuts were necessary in the short term, but long-term goals, such as increasing the customer base, required substantial investment.

Change the strategy versus change the structure: This tension lies between letting the strategy development process lead the structure change or changing the structure to accommodate an agile strategy development process.

## 2.2 Human Resources Management (HRM) disruption and reinvention

These tensions highlight that agility is not merely a structural or process-oriented issue but fundamentally a human one. Managing paradoxes, such as short-term versus long-term change or autonomy versus alignment, requires new capabilities in leadership, collaboration, and learning — areas traditionally influenced by the HR function. Thus, the reinvention of HR becomes a strategic necessity in navigating the VUCA environment.

As we may infer, all these tensions and management challenges require strong, dynamic organizational capabilities that ambidexterity, as we will explain, aims to address. In this turbulent and unpredictable environment, organizations face the dual imperative of maintaining stability while embracing change.

The need to anticipate, adapt, and learn faster than competitors transforms agility from an operational feature into a strategic capability.

Business agility depends not only on strategic foresight and resource reconfiguration but also on organizational culture, leadership, and people systems. In this sense, the development of agility requires a parallel transformation of the human resource architecture, which historically evolved to support control and efficiency rather than adaptability and learning.

Parallel to the emergence of agile management models, the human resource (HR) function is experiencing its own transformation. Traditional HR systems were designed for stable environments with clear hierarchies, permanent structures, and standardized roles.

In the VUCA world, such models are no longer sufficient. HR must evolve from an administrative and compliance-driven role into a strategic partner capable of shaping organizational agility, learning, and innovation. Everything we know about HR is based

on the ideas of permanent organizations, permanent structures, chains of command, and tasks organized into jobs (Minbaeva 2021).

Minbaeva (2021) identifies three mega trends that have a significant influence on this disruption: the emergence of the flexible workplace that changes the traditional understanding of labor relations; the digitalization of business models that forces a need to reinvent HR's value proposition, switching the focus from employees to customers (the so-called employee experience), and finally AI and machine learning with a need to embed these technologies in HR processes without unintended consequences.

Similarly, Claus (2019) affirms that the context is changing dramatically today, and that there is a need to rethink HR's value proposition once again and redesign talent management. This new context is also disrupting talent management, a phenomenon evident for the past two decades.

Progressive companies across all sectors recognize that their talent management practices are no longer meeting the evolving needs of their workers. Instead, employers focus their attention on developing a meaningful employee experience to attract and nurture the talent they need. A new breed of talent management practitioners is developing an HR stack that incorporates other management frameworks, such as design thinking, agile management, behavioral economics, and analytics, to augment their HR competencies. Organizations will be unable to reinvent their existing talent management practices sustainably unless they broaden the talent management conversation.

In this emerging paradigm, HR professionals must act as designers of adaptive systems rather than administrators of fixed processes. Integrating frameworks such as design thinking, agile methodologies, and data analytics, HR can generate actionable insights that directly impact organizational performance. This shift positions HR not as a support function but as a core enabler of strategic agility and organizational ambidexterity.

This reinvention challenges HR to redefine its purpose: from supporting efficiency and control to enabling adaptability, resilience, and the development of capabilities. In this

sense, HR becomes the architect of dynamic capabilities and the steward of human and social capital that underpin organizational ambidexterity (Lengnick-Hall et al. 2011)

As we can see, there is a clear linkage between the evolution of management models adapted to a VUCA environment and the need to adjust the HR function to a new context.

Several authors have analyzed the implications of these changes for the HR function. Cappelli and Tavis (2016) question the performance appraisals based on elements as the need to focus on people development, the need for agility, and the centrality of teamwork. In the same line of thinking, Zhang et al. (2021) propose a novel, holistic framework for strategic people management that incorporates leadership, culture, learning, and networking, helping acquire, transfer, and create knowledge relevant to a firm’s sustainability. As we will explain in detail, new knowledge-creating capacity is crucial to developing ambidexterity as an organizational capability.

As Ulrich and Dulebohn (2015) explain, future HR professionals participating in business discussions will need to offer insights on both organizations and how to build organizational capabilities and individuals, as the HR function has traditionally been centered on.

Ultimately, the reinvention of HR aligns with the broader organizational challenge of balancing exploration and exploitation. By fostering learning, collaboration, and flexibility, HR plays a pivotal role in building the ambidextrous capabilities required to sustain performance in a VUCA context.

The transformation of the HR function is therefore not an isolated trend but a strategic response to the turbulence and uncertainty of the VUCA environment. As organizations strive to balance operational efficiency with continuous renewal, HR must evolve into a creator of value through people, knowledge, and culture. This reinvention implies a shift from traditional process management to capability orchestration, where HR practices become instruments for developing dynamic, ambidextrous, and learning-oriented organizations. Understanding how HR contributes to the creation and renewal of these

capabilities is central to explaining how firms sustain competitiveness in conditions of permanent change.

## 2.3 Organizational Ambidexterity: Concept and Theory

Hence, we arrive at the concept of ambidexterity and ambidextrous organizations through the construction of business agility, also known as strategic agility. As we will develop in this chapter, the academic concept of ambidexterity is not widely present in the practitioner management world.

Ambidexterity is a key response to VUCA environments to gain sustainable competitive advantage and achieve superior, sustainable results.

Interestingly, it all began as an organizational issue aimed at incorporating innovation as a business necessity. The first reference to the ambidextrous organization is Duncan (1976) that presents a contingency model for designing organizations for innovation. The author discusses how a specific focus will be placed on the design dilemma that different organizational structures seem to be more suitable for the initiation and implementation stages of the innovation process.

Duncan assumes that people and organizations are essentially non-innovative, and he concludes that innovation is a complex process. The response to this challenge is an organizational design, a prescriptive model for designing organizations to facilitate innovation, oriented towards the initiation and implementation of innovations. Duncan (1976) affirms that the organization must be strategically responsive in making major changes. At the same time, it must ensure that its activities are carried out in the most efficient manner. As we will see, this is the seminal definition of ambidexterity. The response to this challenging paradox is to apply different structural configurations to facilitate the accomplishment of these two stages: initiation (later defined as exploration) and implementation (later defined as exploitation).

In the initiation stage of innovation, a higher degree of complexity, lower formalization, and lower centralization facilitate the gathering and processing of information crucial to this stage. In the implementation stage, a higher level of formalization and centralization,

and a lower level of complexity, are likely to reduce role conflict and ambiguity that could impair implementation.

Four process variables were identified that the organization designer needs to be sure exist if the organization is going to be able to shift its structure. These variables address conflict, effective interpersonal relations, switching rules for differentiating organizational structures, and institutionalizing dual structures for innovation. (Duncan 1976)

After Duncan, the second author addressing ambidexterity is March. He describes ambidexterity as an appropriate balance between exploration and exploitation as a primary factor in system survival and prosperity. (March 1991).

According to March (1991), the essence of exploitation is the refinement and extension of existing competences, technologies, and paradigms, and its returns are positive, proximate, and predictable. The essence of exploration is experimentation with new alternatives. Its returns are uncertain, distant, and often negative. Thus, the distance in time and space between the locus of learning and the locus for the realization of returns is generally greater in the case of exploration than in the case of exploitation, as is the uncertainty. As we can see, the definition focuses on ambidexterity as an organizational learning capability.

Exploration encompasses a range of terms, including search, variation, risk-taking, experimentation, play, flexibility, discovery, and innovation. Meanwhile, exploitation includes such things as refinement, choice, production, efficiency, selection, implementation, or execution (March 1991).

Together, Duncan and March laid the foundation for understanding ambidexterity as a dual organizational requirement: the structural ability to pursue innovation through differentiated designs and the cognitive ability to balance exploration and exploitation through learning. This duality, between structural design and behavioral learning, remains the defining tension at the core of the ambidexterity construct, which we will further explore.

Considering Duncan and March, the seminal authors in the ambidexterity field, there is extensive literature on the issue, so we could complete the definition with several relevant elements that define and configure ambidexterity and ambidextrous organizations, such as:

Ambidexterity is defined as an organizational capability; ambidextrous organizations possess built-in capabilities for both efficiency, consistency, and reliability on the one hand, and experimentation, improvisation, and risk-taking on the other hand. (Lis et al. 2018). In this same way, BIRKINSHAW and GUPTA (2013) emphasize defining ambidexterity as a managerial competence, and even that the study of ambidexterity is, in fact, the study of firms or organizations.

In this sense, Turner et al. (2013) argue that the use of the term "ambidexterity" in the literature does not reflect managerial activity but rather a capability. They define ambidexterity as the ability to both leverage and refine existing knowledge (exploitation) while creating new knowledge to address deficiencies or gaps identified during execution (exploration).

Ambidexterity is not simply about whether a firm can pursue efficiency and innovation or compete in multiple markets, but about developing the capabilities necessary to compete in new markets and technologies that enable the firm to survive in the face of changed market conditions (O'Reilly III and Tushman 2013). As we will explore later, if well implemented, it can become a sustainable competitive advantage.

While definitions vary, most converge on ambidexterity as an *organizational capability* rather than a discrete managerial practice. It represents the capacity to reconcile paradoxes of efficiency and innovation, stability and change, or alignment and adaptability. This systemic capability explains how firms renew themselves in volatile environments.

As the concept matured, researchers began to emphasize the inherent paradoxes of ambidexterity, moving from structural solutions to behavioral and contextual perspectives.

Ambidexterity is widely defined as a paradoxical management issue that involves simultaneously engaging in opposing activities, both of which are necessary to ensure organizational performance and even survival: the ability to both exploit existing opportunities and explore new ones. The dilemma is that exploration involves a willingness to search, experiment, and take risks, whereas exploitation requires a focus on refining and improving existing systems, processes, or products. As the focus on ambidexterity has deepened, more nuanced discussions have evolved, including a focus on understanding the tensions or paradoxes created by these seemingly contradictory undertakings (Jorgensen and Becker 2017).

Smith and Lewis (2011) explain how, as the environment becomes more global, dynamic, and competitive (i.e, VUCA), contradictory demands intensify. To understand and explain those tensions, academics and practitioners are increasingly adopting a paradox lens. The authors present a dynamic equilibrium model of organizing that is relevant to enhancing ambidexterity capabilities. The authors define paradoxes as contradictory yet interrelated elements that exist simultaneously and persist over time, as organizational efforts to exploit and explore simultaneously. Finally, they propose that managing paradoxical tension via dynamic, purposeful, and ongoing strategies of acceptance and resolution (iterating between splitting and integration) fosters sustainability and long-term results.

In this sense Gupta et al. (2006) introduces the idea that exploration and exploitation are simultaneously achievable and, for all practical purposes, may be seen as orthogonal, rather than as two ends of a continuum. The conclusion is that organizations must learn to excel at both tasks. In the same way, Simsek (2009a) posits organizational ambidexterity as balancing high levels of exploitation and exploration, rather than periodically/spatially switching between them or balancing them at any level: an organization with low levels of exploitation and exploration is ‘balanced’, but not ambidextrous.

Following this line of argument, Cao et al. (2010) contend that significant ambiguity persists in the literature regarding the conceptualization of organizational ambidexterity.

Simsek (2009a) unpacks the ambidexterity construct into two dimensions: the Balance Dimension of Ambidexterity (BD) and the Combined Dimension of Ambidexterity (CD). The first concerns maintaining a balance between exploratory and exploitative activities. In contrast, the second corresponds to the combined magnitude, concluding that concurrent high levels of BD and CD yield synergistic benefits. Therefore, it is a matter of striking a proper balance and implementing both simultaneously.

Ambidexterity can be conceptualized not only at the whole-company level but also at lower levels, i.e., managers, teams, and even individual employees can be considered ambidextrous. So, ambidexterity is a capability that can be studied at different levels. Firm, business unit, team, and individual level. Thus, the most frequently cited publications regarding ambidexterity and the conceptualization of ambidextrous organizations include explanations of the concept and its importance, descriptions of ambidexterity as a multilevel construct, and introductions to models of ambidextrous organizations (Lis et al. 2018).

The literature suggests two major approaches to achieve ambidexterity: structural or organizational ambidexterity and contextual ambidexterity. In structural or organizational ambidexterity, exploitation and exploration occur in different departments or business units. Furthermore, this entails not only separate structural units for exploration and exploitation, but also distinct competencies, systems, incentives, processes, and cultures, each of which is internally aligned. From this perspective, the key to ambidexterity lies in the organization's ability to sense and seize new opportunities through simultaneous exploration and exploitation. This is, at heart, a leadership issue more than a structural one (O'Reilly III and Tushman 2013).

The second approach is contextual ambidexterity, which is the behavioral capacity to simultaneously demonstrate alignment or exploitation, meeting defined goals, and adaptability or exploration across an entire business unit. There is a third approach to ambidexterity, less developed in literature, temporal ambidexterity, where exploitation and exploration vary across time (Hansen et al. 2019).

From a capability-based perspective, both approaches represent complementary pathways to develop dynamic capabilities. Structural ambidexterity emphasizes architectural design, while contextual ambidexterity focuses on behavioral and cultural alignment.

These approaches are not mutually exclusive but represent complementary pathways. Structural or organizational ambidexterity focuses on architectural differentiation, contextual ambidexterity emphasizes social and cultural mechanisms, and temporal ambidexterity captures sequential adaptation. The integrative perspective views these mechanisms as situationally contingent, allowing firms to combine them across levels and time horizons.

The firm's long-term survival is the "sine qua non" of organizational ambidexterity. Ambidexterity is not simply about whether a firm can pursue efficiency and innovation or compete in multiple markets, but about developing the capabilities necessary to compete in new markets and technologies that enable the firm to survive in the face of changed market conditions (O'Reilly III and Tushman 2013)

In the first two decades of the XXI Century, there has been a meteoric rise in ambidexterity research (BIRKINSHAW and GUPTA 2013). The authors explain it because of the managerial concept's versatility and its perceived novelty and progressiveness. They establish three stages of literary development.

Definition stage, (1995 – 2005): with a few initial papers that defined the concept, showed that it was important, and provided the necessary theoretical hooks to prior literature (Adler et al. 1999; Gibson and Birkinshaw 2004; He and Wong 2004; Tushman and O'Reilly III 1996).

Growth stage (2005-2009): with a proliferation of papers that examined the different forms of the concept, its antecedents and consequences, and the roles of various moderating and mediating variables (Gupta et al. 2006; Im and Rai 2008; Lubatkin et al. 2006). This stage also included papers applying the concept to various phenomena (e.g.,

alliances, venture units) and at different levels of analysis (individuals, teams, partnerships).

Finally, the Consolidation Stage (2009-2013) saw a further proliferation of papers exploring additional aspects of ambidexterity, while several attempts were made to pursue convergent rather than divergent approaches. This analysis, therefore, excludes many of the papers that discuss the broader tension between exploration and exploitation (Nosella et al. 2012). This stage included several Special Issues or themed sections in journals (e.g., in *Organization Science* and *Academy of Management Perspectives*), as well as some in-depth reviews (Raisch et al. 2009; Simsek 2009b).

The most important question addressed by the empirical research is whether organizational ambidexterity, as the theory suggests, is related to firm performance. According to O'Reilly III and Tushman (2013), the preponderance of evidence from a wide range of research indicates a clear pattern: ambidexterity is positively associated with sales growth, subjective performance ratings, innovation, market valuation, and firm survival.

Interestingly, ambidexterity is more valuable in environments of uncertainty, making it relevant in VUCA environments, where increased competitiveness is achieved by allocating more resources, particularly for larger firms (O'Reilly III and Tushman 2013). The conclusion appears to be clear: in uncertain environments, organizational ambidexterity is positively associated with increased firm innovation, improved financial performance, and higher survival rates (O'Reilly III and Tushman 2013)

### Contextual ambidexterity

Birkinshaw and Gibson (2004) present their research on contextual ambidexterity, defined as the ability to simultaneously achieve alignment and adaptability at the business-unit level. This theory, grounded in the leadership and organizational context literature, argues that a context characterized by a combination of stretch, discipline, support, and trust facilitates contextual ambidexterity. Through this theoretical view, they prioritize culture and leadership in organizational solutions to achieve

ambidexterity. This presents an interesting perspective for smaller organizations, opening up new opportunities for HR policies and practices.

The authors suggest that contextual ambidexterity is best achieved not through structural, task, or temporal separation, but by creating a business unit context that encourages individuals to make their own judgments about how best to divide their time between the conflicting demands for alignment and adaptability (Gibson and Birkinshaw 2004). Contextual ambidexterity may be particularly relevant at the business unit level or in small-to medium-sized enterprises, since these organizational entities lack the size and resources to adopt alternative solutions to ambidexterity (Lubatkin et al. 2006).

Ghoshal and Bartlett (1994) were the predecessors of this contextual ambidexterity theory, and it is interesting how they defined the four behavior framing attributes (see Figure 4):

Discipline induces members to voluntarily strive to meet all expectations generated by their explicit or implicit commitments.

Stretch is an attribute of context that induces members to voluntarily strive for more ambitious objectives, rather than less ambitious ones.

Support induces members to lend assistance and countenance to others.

Trust is a contextual attribute that encourages members to rely on one another's commitments.

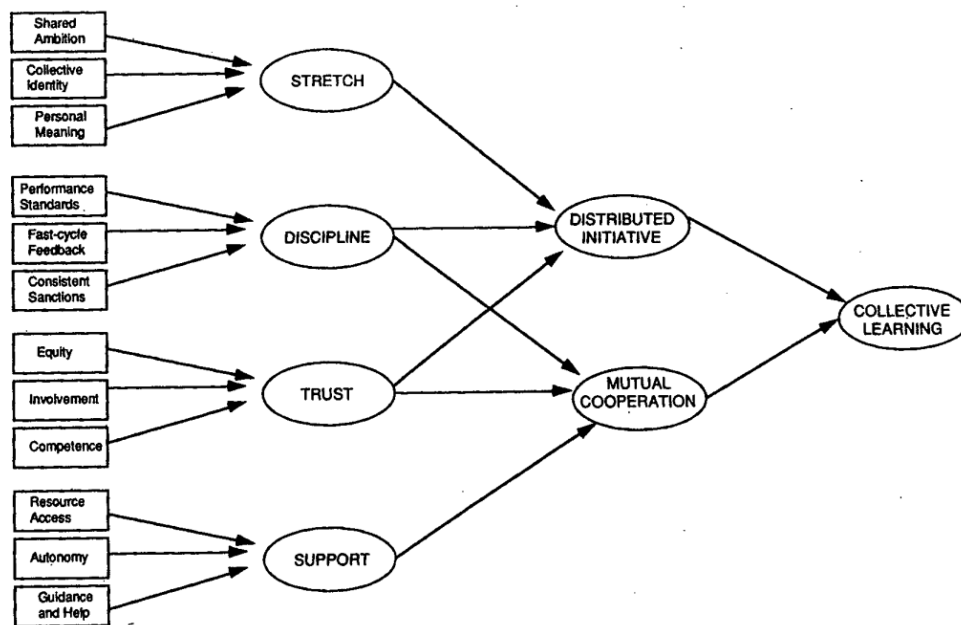


Figure 4 Contextual factors of ambidexterity (Ghosal & Bartlett, 1994)

The authors conceptualized these four attributes as interdependent, and from this perspective, Gibson and Birkinshaw (2004) extend their framework by arguing that when a supportive organizational context is created, individuals engage in both exploitation-oriented (focused on alignment) and exploration-oriented (focused on adaptability) actions, resulting in contextual ambidexterity, which subsequently enhances performance.

From a human resource and leadership perspective, contextual ambidexterity is particularly relevant, as it depends on cultural alignment, trust, and empowerment—elements that can be actively developed through HR systems and leadership behaviors.

For a company to succeed over the long term, it needs to master both adaptability and alignment—an attribute referred to as ambidexterity (Birkinshaw and Gibson 2004)

The following chart (Figure 5) explains in a very clear way the differences between organizational and contextual ambidexterity:

### Structural Ambidexterity Vs. Contextual Ambidexterity

**Structural Ambidexterity vs. Contextual Ambidexterity**  
 The traditional view of organizational ambidexterity revolves around a structural separation of initiatives and activities. The notion of contextual ambidexterity, which manifests on an individual level, represents a complementary process.

|   | <b>Structural Ambidexterity</b>   | <b>Contextual Ambidexterity</b>  |
|---|---|--|
| <b>How is ambidexterity achieved?</b>   | Alignment-focused and adaptability-focused activities are done in separate units or teams | Individual employees divide their time between alignment-focused and adaptability-focused activities |
| <b>Where are decisions made about the split between alignment and adaptability?</b> | At the top of the organization  | On the front line — by salespeople, plant supervisors, office workers                                |
| <b>Role of top management</b>   | To define the structure, to make trade-offs between alignment and adaptability            | To develop the organizational context in which individuals act                                       |
| <b>Nature of roles</b>  | Relatively clearly defined  | Relatively flexible  |
| <b>Skills of employees</b>  | More specialists  | More generalists   |

[Hide Exhibit](#)

Figure 5 Structural ambidexterity vs. contextual ambidexterity (Birkinshaw & Gibson, 2004)

Raisch and Birkinshaw (2008) In Figure 6, analyze the antecedents of organizational ambidexterity, identifying organizational structures, behavioral contexts, and leadership processes—primarily centered on top management teams—as the three most relevant factors that enable ambidexterity within an organization.

### A Framework for Understanding Organizational Ambidexterity Research

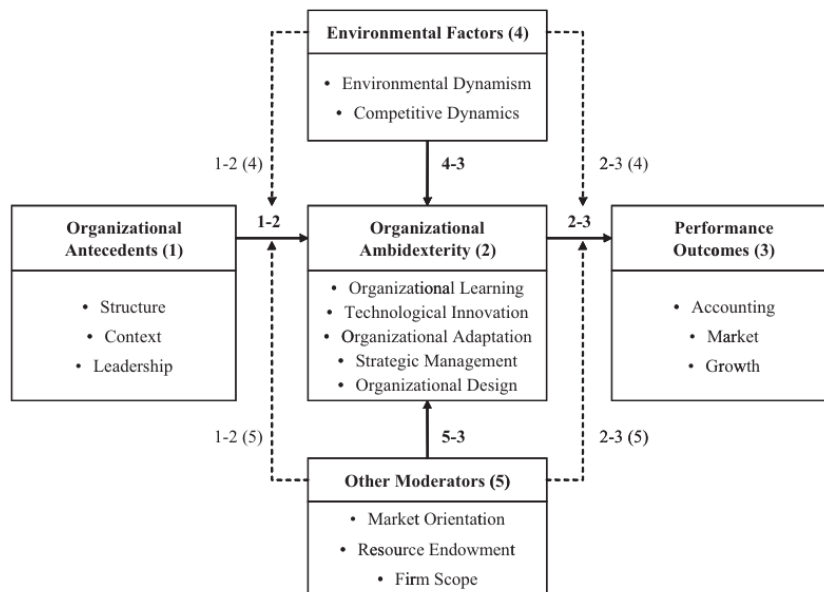


Figure 6 A framework for understanding organizational ambidexterity research (Raisch & Birkinshaw, 2008)

Similarly, this framework in Figure 7 explains the context needed to generate ambidexterity and other relevant mediators.

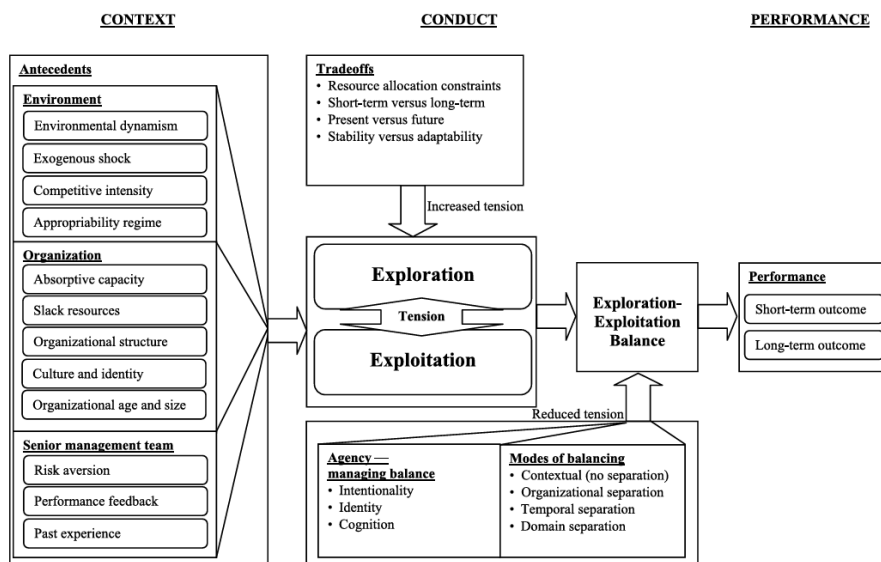


Figure 7 Context to create ambidexterity (Lavie et al., 2010)

## 2.4 Ambidexterity as a Dynamic Firm Capability and Absorptive Capacity

O'Reilly III and Tushman (2013) affirm that the appropriate lens to explain organizational ambidexterity remains that of dynamic capabilities. Dynamic capabilities are defined as the firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments.

Therefore, it is clearly related to the organization's capacity for learning and adaptation. In this sense, the authors suggest that dynamic capabilities, such as ambidexterity, explain long-term competitive advantage and simultaneously enable organizations to adapt over time.

They also reinforce the key role of strategic leadership in appropriately adapting, integrating, and reconfiguring organizational skills and resources to match changing environments (O'reilly Iii and Tushman 2008).

Teece et al. (1997) characterize dynamic capabilities as the distinct skills, processes, procedures, organizational structures, decision rules, and disciplines that enable senior leaders of a firm to identify threats and opportunities and to reconfigure assets. The capabilities required for firms to be ambidextrous, according to the authors, are sensing, seizing, and reconfiguring.

Sensing means being able to scan, search, and explore opportunities and threats. It requires a culture of openness that encourages debate, long-term thinking, and a mindset. It is the exploration side of ambidexterity.

Seizing is about making the right decision and executing.

Reconfiguring involves reallocation of resources away from mature and declining businesses toward emerging growth opportunities.

O'reilly Iii and Tushman (2008) identify the five foundational elements for ambidexterity as a dynamic capability that, if not present, is not likely to become ambidextrous: a clear strategic intent, an overarching vision and values, an aligned senior team, an appropriate

organizational architecture with targeted integration, and the ability of the senior team to manage the inevitable tradeoffs and conflicts that will arise.

Finally, Eisenhardt and Martin (2000) explain where the potential for long-term competitive advantage lies in dynamic capabilities. It refers to utilizing those dynamic capabilities more effectively, sooner, or more opportunistically than competitors to create resource configurations that yield an advantage. Therefore, a long-term competitive advantage lies in the resource configurations that managers build using dynamic capabilities, rather than in the capabilities themselves. Effective dynamic capabilities are necessary but not sufficient for competitive advantage.

From the dynamic capability perspective, ambidexterity is not only a dual structure or behavior but a higher-order capability that enables the firm to sense, seize, and reconfigure its resource base. This makes ambidexterity a key mechanism for sustained adaptation and competitive renewal in VUCA environments.

Developing such dynamic capabilities depends heavily on the organization’s intellectual capital—its human, structural, and social assets—and on HR practices that nurture learning, flexibility, and collaboration.

As we have seen, a firm’s learning capacity is determinant to achieve ambidexterity. To be ambidextrous, organizations need to expand on their capacity to process information, which is absorptive capacity (Datta 2011).

Absorptive capacity is the limit to the rate at which a firm can absorb scientific or technological information and/or a limit to the quantity of such information that can be absorbed. Conceptually, absorptive capacity is like information-processing capacity, but at the firm rather than the individual level. Absorptive capacity underlies a firm’s knowledge capabilities, enabling it to acquire, assimilate, transform, and exploit knowledge resources to produce dynamic capabilities. It is conceptualized as the capacity to recognize the value of knowledge, acquire, assimilate, transform, and apply knowledge effectively (Datta 2011).

As we will explore in greater detail later through the Intellectual Capital construct, we link organizational learning capacity to ambidexterity, which is the core of this dissertation.

Absorptive capacity represents the cognitive infrastructure of ambidexterity. It enables the continuous acquisition, assimilation, and transformation of knowledge that fuels both exploration and exploitation. In this sense, absorptive capacity serves as the operational link between intellectual capital and dynamic capabilities, acting as the learning engine of ambidextrous organizations.

In summary, ambidexterity represents the organizational manifestation of dynamic capabilities, the ability to integrate, build, and reconfigure resources to strike a balance between exploration and exploitation. It requires an infrastructure of leadership, culture, and HR systems that encourage learning, adaptability, and strategic renewal. Underlying these capabilities is the organization’s intellectual capital, which provides the human, social, and structural foundations for ambidextrous learning. Thus, understanding how HRM and intellectual capital interact to sustain ambidexterity becomes essential for explaining organizational excellence in VUCA contexts.

## 2.5 Ambidexterity and HR Management

Having previously introduced ambidexterity as a relevant management concept for achieving sustainable competitive advantages in a VUCA environment, we will now explore the role of HR management in creating the context for developing ambidexterity within organizations.

Although research on organizational ambidexterity has expanded rapidly over the past two decades, the role of Human Resource Management (HRM) in fostering ambidextrous capabilities remains underdeveloped (Junni et al. 2015). Most studies focus on structural or leadership antecedents, while the contribution of HR architectures, people practices, and social systems is only beginning to be understood (Hansen et al. 2019).

Understanding how HR practices interact with organizational factors, such as culture, structure, and leadership, across multiple levels of analysis is essential for explaining how ambidexterity emerges and is sustained within organizations. This section, therefore, explores how HR systems can create the contextual and behavioral conditions that enable ambidexterity, drawing on the literature on High-Performance Work Systems, social climate, and leadership.

In this sense Junni et al. (2015) as we can see in Figure 8, it reinforces the idea that ambidexterity is achieved when both HR and organizational factors work in concert. They believe that understanding the role of HR (including employees, leaders, and HR practices/systems) in conjunction with organizational factors (such as organizational structure, culture, social relationships, and organizational environment) at multiple levels of analysis is crucial for comprehending how ambidexterity is created and supported across various organizational levels.

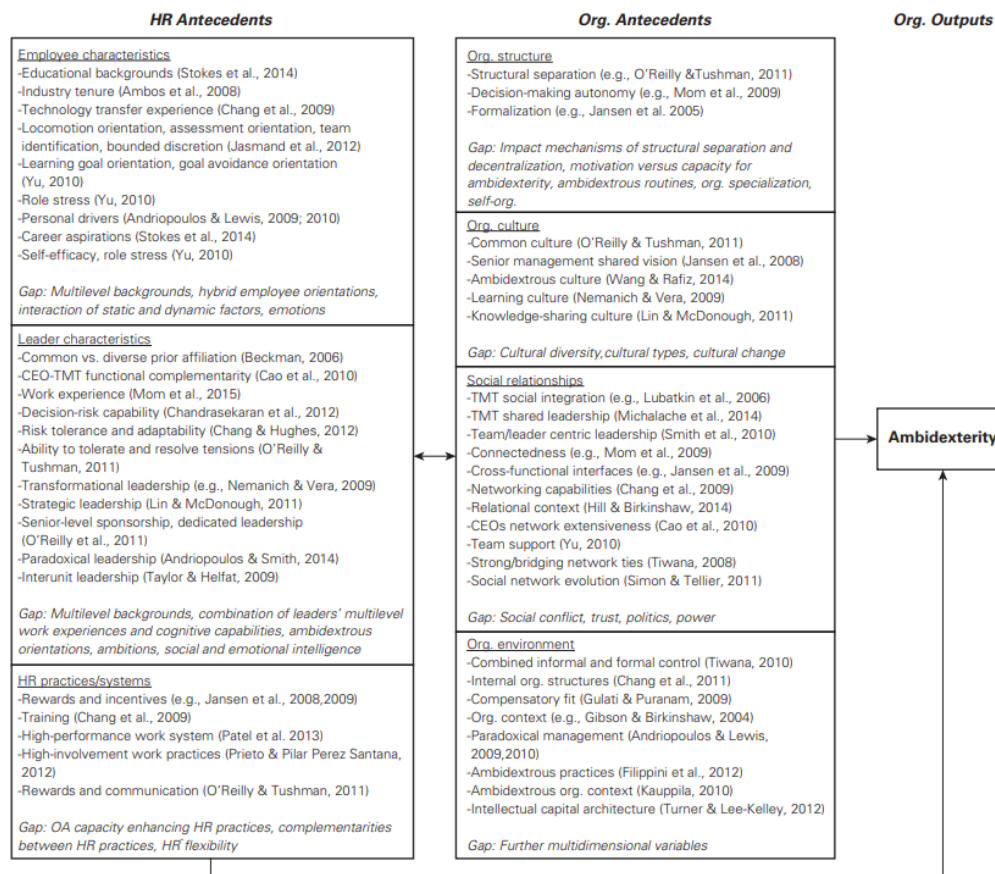


Figure 8 An integrative Model of the HR and Organizational Antecedents of Ambidexterity (Junni et al, 2015)

Jorgensen and Becker (2017) affirm that the prevailing assumption in the literature is that HRM practices can support ambidexterity, and that different types of ambidexterity will require different HRM practices. What remains to be fully understood, and it appears to be the research gap, is how different HRM practices can support these various types of ambidexterity in teams, which presents one of the research questions this dissertation aims to address: “How can HRM practices support ambidexterity at the firm and at the team level”?

In this case, interestingly relating HR architectures to both main types of ambidexterity, organizational and contextual, Jorgensen and Becker (2017) present two different approaches to HRM that their analysis suggests contribute to the development of ambidexterity in teams, comparing the two case organizations they studied.

Relationship-centric HRM for ambidexterity, which is the internally aligned combination of practices associated with work design, staffing, training and development, remuneration, and performance management, serves to maintain long-term relationships that provide the basis for contextual ambidexterity. They do not structurally separate exploration and exploitation, but rely on teams to manage these activities simultaneously. To delve deeper into this perspective, Adler et al. (1999) present their case study of the NUMMI car manufacturing plant, in which they analyze how, through training, trust management, and strong leadership, they create conditions that enhance contextual ambidexterity, resulting in superior performance compared to their main competitors.

Expert-centric HRM for ambidexterity, as the architecture is designed to ensure highly specific expert knowledge that supports both exploitative and exploratory behaviors. In this case, the organization relied on organizational ambidexterity to provide the teams with a separation of exploration and exploitation.

By identifying these two approaches to HRM, the study emphasizes the importance of aligning HRM practices with the organizational context, and with the team structure in particular (Jorgensen and Becker 2017) .

These two approaches illustrate the importance of fit between HR architecture and the organizational context. Relationship-centric HRM aligns with contextual ambidexterity by fostering trust, collaboration, and learning within teams, while expert-centric HRM supports structural ambidexterity through specialization and differentiated skill development. Both rely on HR's capacity to configure systems of practices that reinforce either shared behavioral norms or structural differentiation.

More specifically, the strategic HRM literature emphasizes a configurational approach to HRM, conceptualized as High Performance (or Involvement) Work Practices (or Systems; HPWP), to exploit system-based synergies for enhanced organizational performance, which is closely related to ambidexterity (Jorgensen and Becker 2017; PATEL et al. 2013). Research has shown that high-involvement or high-performance HR systems contribute

to firm performance by motivating employees to adopt desired behaviors that, in the collective, contribute to the benefit of the organization (Huselid and Becker 1995)

Garaus et al. (2016) analyze, through empirical case studies of three mid-sized “hidden champions,” how an ambidextrous HRM system operates. They demonstrate that ambidextrous HRM systems can be regarded as a special type of High-Performance Work System that facilitates the continuous integration of exploration and exploitation to pursue flexibility (exploration) and efficiency (exploitation). They elucidate how firms apply integrative employment practices and integrative work practices to facilitate collaboration and create a common frame of reference that fosters knowledge integration, a so-called shared vision.

Prieto and Pilar Pérez Santana (2012), attempt in their study to bring HRM to explain how firms can pursue ambidextrous learning. They introduce and test how HPWP shapes the social climate or context (the appropriate culture) that affects the firm’s ambidextrous learning and improved performance. They achieve this through a study of 198 companies in Spain, showing that high-involvement human resource practices are positively related to the social climate, which, in turn, facilitates ambidextrous learning and improved performance.

HPWP assessment should be based on an integrated measure that reflects three main human resource domains: (1) people flow, including staffing, mobility, and training resulting in ability enhancing; (2) appraisal and rewards, including performance appraisal and compensation (opportunity enhancing); and (3) employment relations, including job design and participation (motivation enhancing) (Prieto and Pilar Pérez Santana 2012).

In a similar manner, Collins & Smith (2006) developed and tested a theory of how human resource practices influence the organizational social climate, which facilitates knowledge exchange and combination and, in turn, results in firm performance. A field study of 136 technology companies revealed that HPWP were positively associated with organizational social climates characterized by trust, cooperation, and shared codes and language. In turn, these measures of a firm's social climate were related to the firm's

ability to exchange and combine knowledge, a relationship that predicted both the firm's revenue from new products and services and its sales growth.

Strategic HRM research conceptualizes HR systems as configurational sets of practices—commonly referred to as High-Performance Work Systems (HPWS)—that generate synergistic effects on organizational performance (Huselid and Becker 1995; PATEL et al. 2013). A growing body of evidence demonstrates that HPWS can facilitate ambidexterity by shaping an organizational climate of trust, collaboration, and shared purpose that supports both exploration and exploitation. In this sense, HR systems act as the social infrastructure of ambidexterity.

The conclusion is that HPWP can foster social climates (or cultures) that facilitate the development of employee-based organizational capabilities, such as ambidexterity, which in turn create a competitive advantage. Therefore, there is an indirect relationship between HPWP and firm performance, mediated by their impact on organizational social climate and knowledge exchange, as well as their combined effect (Collins and Smith 2006).

PATEL et al. (2013) build on existing work in the behavioral view of ambidexterity to assess the extent to which the use of certain HR practices may be linked to a context characterized by discipline, stretch, trust, and support, as defined in the contextual ambidexterity frameworks. They further argue that these practices can be combined into a single high-performance work system (HPWS), enabling the firm to achieve both alignment and adaptability, which are necessary for ambidexterity.

To achieve stretch and discipline that together build alignment through an HR System, they propose clear performance standards and expectations, open feedback systems, consistency in how people are managed, and a culture of continually raising their standards.

To achieve support and trust through an HR System, it should provide employees with the necessary resources, care, and autonomy. Meanwhile, trust is thought to be

influenced by perceptions of equity, competence of organizational leaders, and the level of involvement offered to employees.

Chang (2015) examines, as well, the process linking high-performance work systems (HPWS) and organizational ambidexterity at both the unit and firm levels of analysis by integrating strategic HRM, human capital, and social capital perspectives. The author affirms that it could be argued that HPWS tends to focus more on the exploitation of the formal and the known than on exploration. Hence, he argues that HPWS needs to be ‘complemented’ with a social climate (i.e., trust, cooperation, and shared codes and languages) to foster a context that promotes or impedes both exploration and exploitation concurrently.

Reinforcing this idea of the relevance of HR practices to enable ambidexterity, Swart et al. (2019) focus on the individual actions, mainly in management roles, that enable ambidexterity. They introduce the relevance of Intellectual Capital linked to HRM that is key in this dissertation, explaining how the literature shows that there are organizational, social or relational, and individual factors that lead to ambidexterity; and they find that senior management roles engage more in integration, role expansion, and tone setting in order to create ambidexterity, reinforcing the relevance of leadership as a context and cultural creator.

At the individual level, leadership and managerial actions play a central role in shaping the social and cognitive conditions that enable ambidexterity. Swart et al. (2019) highlight that managers engage in role expansion, integration, and tone-setting behaviors that promote learning and collaboration across boundaries. This view introduces the micro foundations of ambidexterity, emphasizing that individual and relational actions—supported by HR systems and intellectual capital—constitute the building blocks of organizational ambidexterity.

Hence, HR management becomes a strategic mechanism for developing the human and social capital necessary to sustain ambidextrous capabilities, reinforcing its central role in the architecture of dynamic capabilities.

In conclusion, the literature suggests that HRM is not a peripheral support function, but rather a critical enabler of ambidexterity. Through the design of high-performance work systems, leadership development, and social climate shaping, HRM orchestrates the human and relational resources that sustain both exploration and exploitation. This positions HR as a strategic actor in building dynamic capabilities and as a bridge between individual learning, organizational renewal, and sustained performance.

Taken together, this stream of literature positions HRM not as a direct producer of ambidexterity but as a contextual architecture that shapes the conditions under which ambidextrous behaviors may emerge. This theoretical positioning leads directly to Research Question 2, which examines how HR practices create organizational contexts that enhance intellectual capital and organizational learning capacity, thereby supporting ambidexterity.

The next section will deepen this perspective by examining how intellectual capital provides the foundational assets—human, structural, and relational—that underpin ambidextrous capability.

## 2.6 Ambidexterity, Leadership, Managers, and Top Management Teams.

Because ambidexterity requires the simultaneous pursuit of competing strategic logics, leadership becomes the central integrative mechanism that aligns exploration and exploitation across organizational levels (Junni et al. 2015).

Havermans et al. (2015) examine the role of leadership in facilitating contextual ambidexterity, presenting the findings of two qualitative studies that investigate leadership in project-based organizations.

The authors analyze the leadership practices that enable exploration by stimulating a higher complexity of responses with practices like involving others in a task and stimulating discussion, encouraging boundary spanning of teams promoting relational capital, encouraging the individual development of the members of the team, being available, listening to others and suggesting solution to current issues, and finally stimulating the adoption of values related to exploration.

A second way in which leaders enable exploration is by stimulating a higher complexity of actions of their teams, with leadership practices as giving others freedom in the accomplishment of their tasks, encouraging people to work together, or accepting mistakes to create a sense of psychological safety that enables people to show initiative and proactively experiment with new actions.

In contrast, when stability and efficient execution are required, leaders employ practices that simplify decision processes and reduce behavioral complexity. The authors also present leadership practices to enable the exploitation side of both beliefs and actions. First, reduce the complexity of beliefs through practices such as stopping a discussion, not involving others in the conversation, sticking to agreements, or taking calculated risks. A second approach leaders used to stimulate others to reduce response complexity was to encourage lower-complexity actions. These leadership practices included making decisions, enforcing rules, and redirecting efforts to align with management expectations.

This dual and paradoxical leadership approach requires managers to possess strong capabilities for adapting to context and mastering all leadership practices.

Building on this behavioral duality, Jansen et al. (2009) conceptualize ambidextrous leadership through the balance of transformational and transactional behaviors. They explain this duality by linking the transformational and transactional behaviors of strategic leaders to two critical outputs of organizational learning: exploratory and exploitative innovation. They define transformational leadership as behaviors that foster the adoption of generative thinking in teams and the pursuit of exploratory innovation. Meanwhile, they define transactional leadership as the style that facilitates the improvement and extension of existing knowledge.

Similarly, Mom et al. (2009) identify that both managers' participation in cross-functional interfaces and their connectedness to other organizational members positively relate to managers' ambidexterity.

Taken together, these studies emphasize that ambidexterity begins with leaders and managers who create the micro-level conditions—psychological safety, cross-functional collaboration, and learning orientation—that allow exploration and exploitation to coexist. However, these local practices must be aligned and reinforced by senior leadership and organizational systems, as explored next.

Leadership is considered a crucial process in achieving ambidexterity. Gibson and Birkinshaw (2004) examine the role of leaders in creating stretch, discipline, support, and trust to build a supportive context for contextual ambidexterity. Nemanich and Vera (2009) focus specifically on the role of transformational leadership in promoting contextual ambidexterity. O'Reilly III and Tushman (2013), center on the organizational ambidexterity paradigm, this research reinforces the relevance of leadership in top management teams, particularly in issues such as how to orchestrate the allocation of resources between routine and new business domains, and how leaders can manage the inevitable conflicts that arise.

In this way, Tushman et al. (2011) in a paper titled "The ambidextrous CEO" where they conducted an in-depth study of 12 top management teams at major companies, identified three leadership principles that help firms grow their core business and, at the same time, cultivate new offerings that will reshape their industries:

- (1) engage the senior team around a forward-looking strategic aspiration,
  - (2) explicitly hold the tension between the demands of innovation units and the core business at the top of the organization,
- and (3) embrace consistency by maintaining multiple and often conflicting strategic agendas. While Tushman et al. highlight the CEO's role in managing paradoxical strategic tensions, subsequent research emphasizes that ambidexterity also depends on collective leadership within the top management team.

Lubatkin et al. (2006) introduce the concept of *behavioral integration* to capture the extent of unity and shared effort within TMTs. They aimed to capture the level of wholeness and unity of effort among the senior team. A behaviorally integrated TMT is

better equipped to synchronize the team’s social and task processes, including the quality of information exchange, collaborative behavior, and joint decision-making. It is not just a matter of individual leadership, but also of team or shared leadership. The authors conclude that a prerequisite for achieving ambidexterity is a CEO who can foster greater behavioral integration among top management team members.

At this point, we have clearly reinforced the relevance of Top Management Teams and their leadership in creating ambidexterity as an organizational capability. The TMT is observed to positively influence ambidexterity by enhancing the firm’s ability to meet the differentiation-integration challenges, and by facilitating the effective deployment of an ambidextrous Human Resource (HR) architecture for employee learning (Venugopal et al. 2019) .

Building on this notion, Venugopal et al. (2019) provide empirical evidence that TMT behavioral integration directly supports both structural and contextual ambidexterity by enhancing collaboration and knowledge exchange across units. In their investigation, they examine the effect of TMT processes and mechanisms in enabling structural and contextual ambidexterity. They reinforce the previously explained idea of “behavioral integration,” which suggests that TMT mechanisms of connectedness and cross-functional integration are important contributors to building an ambidextrous firm.

In summary, they affirm that a behaviorally integrated TMT, which engages in collaborative behavior, joint decision-making, and information exchange, is better positioned to accept, manage, and decide on the contradictory demands of exploration and exploitation innovation strategies, thereby building an ambidextrous firm.

## 2.7 Intellectual Capital, HR Management, and Ambidexterity

If ambidexterity represents the organizational capability to balance exploration and exploitation, Intellectual Capital represents the stock of human, structural, or organizational, and social or relational assets that enable this balance to occur. As we delve into this section, a substantial body of literature links intellectual capital and

Human Resource Management as key mechanisms in the development of ambidexterity as an organizational capability.

While ambidexterity describes the organization’s dynamic capability to balance exploration and exploitation, intellectual capital is the underlying resource base that enables it. Human, social, and organizational capital provide the knowledge, relationships, and routines that enable ambidexterity to become operational. We will further explain these concepts and their relationship in this section.

Swart (2006) defines Intellectual Capital (IC) as the organization-wide knowledge resources that, in combination, constitute capabilities that enable the organization to take action. It is widely accepted that an organization’s capability to innovate is closely tied to its Intellectual capital, or its ability to utilize its knowledge resources (Subramaniam and Youndt 2005) . Intellectual capital is the sum of all knowledge that firms utilize for competitive advantage (Nahapiet and Ghoshal 1998; Subramaniam and Youndt 2005).

Intellectual capital represents a valuable resource and a capability for action based on knowledge and knowing (Nahapiet and Ghoshal 1998). The authors in this seminal paper introduce the relevance of organizational learning as a lever for creating competitive advantage, providing Intellectual Capital with a dynamic perspective that explains the drivers of knowledge creation at the firm level: a combination of existing knowledge and the exchange of knowledge, reinforcing the relevance of relational capital in enhancing Intellectual Capital.

Taken together, these definitions position IC not simply as a stock of knowledge but as an actionable capability base that enables sensing, learning, and coordinated execution—core requirements for balancing exploration and exploitation.

This definition enables further examination of the second-tier sub-components of Intellectual Capital, which dynamically integrate to produce IC. The most prominent sub-components identified in previous research include human capital, social (relational)

capital, structural capital (also referred to as organizational capital), and customer capital. (Swart 2006).

Human Capital (HC): Most definitions agree that HC is an individual-level construct comprising individuals' knowledge, skills, intellect, and talent, regardless of the firm's context. These capabilities reside and are utilized by individuals (Subramaniam and Youndt 2005).

Social (relational) capital: It refers to the degree of knowledge sharing within and between teams. As Swart (2006) describes, the emergence of SC in explaining firm performance is due to the application of economic theory to sociological thought. Social Capital refers to the relationships of trust among economic actors; in this sense, many authors go so far as to say that the more SC a society has, the more efficient it is in transactions and the more productive it is (Nahapiet and Ghoshal 1998; Subramaniam and Youndt 2005). In organizational terms, SC (relational capital) helps create a sense of belonging. Interestingly, it is believed that in this instance, members of a particular network will be more likely to trust their counterparts and provide more resources without expecting something in return. SC is defined as well as the knowledge embedded within, available through, and utilized by interactions among individuals and their networks of interrelationships (Nahapiet and Ghoshal 1998).

Organizational capital (OC) resembles organizational know-how, focusing on converting human capital into intellectual capital. The collective know-how is said to reside within the organizational routines or rules. In summary, the key themes identified in the organizational literature include informal or tacit routines (“the way we do things here”), formal and explicit procedures and rules, and processes directed toward both internal and external relationships. OC is the institutionalized knowledge and codified experience that resides in and is utilized through databases, patents, manuals, structures, systems, and processes (Youndt and Snell 2004).

These components are distinct yet complementary: human capital equips individuals with the ability to learn and create; social capital enables knowledge exchange and combination across boundaries; organizational capital institutionalizes knowledge in

routines, systems, and processes. Because they co-produce value, selective investment in only one component is insufficient; firms need aligned investments across HC, SC, and OC to realize IC's full effect on ambidexterity.

In the literature, the terms social capital and relational capital are frequently used to describe overlapping phenomena related to the quality of relationships, patterns of interaction, and the social context that enables knowledge sharing and collective action within and across organizations.

Seminal contributions conceptualize social capital as the sum of actual and potential resources embedded in networks of relationships, emphasizing trust, norms, shared values, and social interaction as key enabling mechanisms (Nahapiet and Ghoshal 1998). In the intellectual capital literature, this relational dimension is often referred to as *relational capital*, highlighting its organizational embeddedness and its role in connecting individuals, groups, and external stakeholders to facilitate learning, coordination, and value creation (Bontis 1998; Subramaniam and Youndt 2005).

While both terms refer to closely related constructs, this dissertation adopts the term Relational Capital (RC) to emphasize a more managerial and organizationally actionable perspective, consistent with its focus on HR practices, leadership behaviors, collaborative cultures, and governance mechanisms that shape relational conditions within organizations. Accordingly, social capital and relational capital are treated as conceptually equivalent in this study, with *relational capital* used as the preferred term to reflect its relevance for organizational design, management practice, and the development of ambidextrous capabilities.

A natural outcome of these second-tier elements of IC is that each of these aspects requires unique kinds of investments; human capital requires the hiring, training, and retaining of employees; organizational capital requires the establishment of knowledge storage devices and structured recurrent practices; and social capital requires the development of norms that facilitate interactions, relationships, and collaboration (Subramaniam and Youndt 2005). Similarly, Swart (2006) concludes that training and development investment alone will not improve business performance, but that

investment must be made across all forms of IC that work together to convert knowledge and skills into tangible products and services.

As IC refers to the sum of all the knowledge stocks a firm utilizes for competitive advantage, expanding this stock requires organizational learning through processes of acquiring, sharing, and integrating new knowledge from both inside and outside the firm (Kang and Snell 2009). In this sense, HC is the primary foundation for organizational learning, influencing a firm's ability to acquire new knowledge. SC provides a conduit for knowledge exchange and combination, while OC describes the knowledge captured in processes, systems, and structures.

Turner and Lee-Kelley (2013) explain how the subcomponents of IC are generally understood as broadly separate, although co-existing concepts. However, they affirm that although conceptually distinct, the three may be related in practice, affecting one another. This is relevant to understanding the complex interactions between them and their impact on the processes of exploitation and exploration as ambidexterity capability builders.

Turner et al. (2013) In their study, they identify the mechanisms for achieving ambidexterity at multiple organizational levels and, for that purpose, use a systematic review to develop a research framework that integrates intellectual capital resources (organizational, social, and human capital). The role of organizational capital is to reinforce ambidexterity through incentives and practical routines that combine both mechanistic (exploitative) and organic (exploratory) processes. The role of relational capital concerns the management of social ties and collaboration, while the role of human capital concerns leadership and the development of individual capabilities.

A wide body of research links HRM practices that create an adequate context to enhance organizational learning, thereby building intangible assets at the firm level and developing ambidexterity at the organizational level.

Subramaniam and Youndt (2005) examine how aspects of intellectual capital influence various innovative capabilities in organizations. In their study, they find that human,

organizational, and social capital, as well as their interrelationships, influence both incremental (exploitative) and radical (exploratory) innovative capabilities. They analyze how organizational capital positively influenced incremental innovative capability, while human capital interacted with social capital to positively influence radical innovation capabilities. Interestingly, they find that social capital plays a significant role in both types of innovation, positively influencing incremental and radical innovation capabilities.

This is consistent with the contextual ambidexterity view: climates of trust, support, discipline, and stretch foster both alignment (exploitation) and adaptability (exploration). Social capital is the carrier of that climate, lowering coordination costs, enabling rapid recombination of knowledge, and legitimizing boundary-spanning behaviors.

They conclude in their analysis that unless individual knowledge is networked, shared, and channeled through relationships, it provides little benefit to organizations in terms of innovative capacities. Nahapiet and Ghoshal (1998) reinforced this linkage between social capital and Intellectual capital when they explained the new knowledge creation mechanisms, exchange, and combination as we can see in Figure 9:

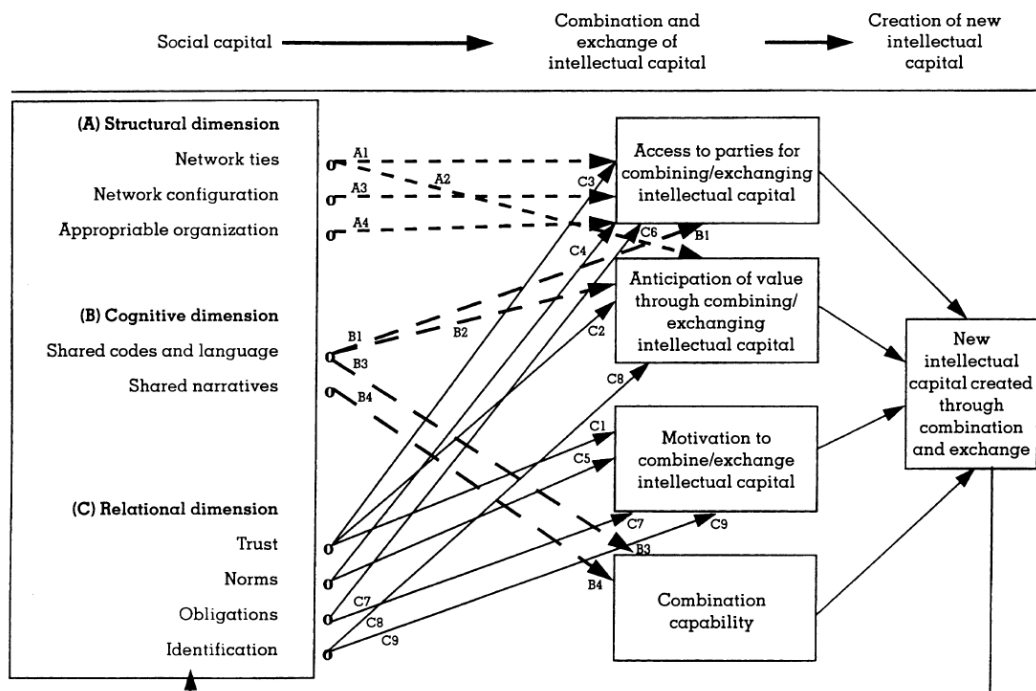


Figure 9 Social Capital in the creation of Intellectual Capital (Nahapiet & Ghoshal, 1998)

Following this conclusion about the relevance of relational capital in the whole mechanism of creating new knowledge and enhancing intellectual capital at a firm level as a competitive advantage creator, and from the perspective of HR practices an organization’s efforts at hiring, training, work design, and other human resource management activities may need to focus not only on shoring up their employees’ functional or specific technological skills/expertise, but also on developing their abilities to network, collaborate, and share information and knowledge.

Accordingly, social (relational) capital may be the key not only for creating ambidextrous organizations (Tushman and O’Reilly III 1996), but also for developing dynamic capabilities that enable organizations to shift their competitive focus and achieve new forms of competitive advantage (Subramaniam and Youndt 2005).

Pak et al. (2023) propose a novel theoretical framework to extend the research on the relationship between IC-enhancing HR practices and innovation. They examine how firm exploitative and explorative capabilities mediate the relationship between different

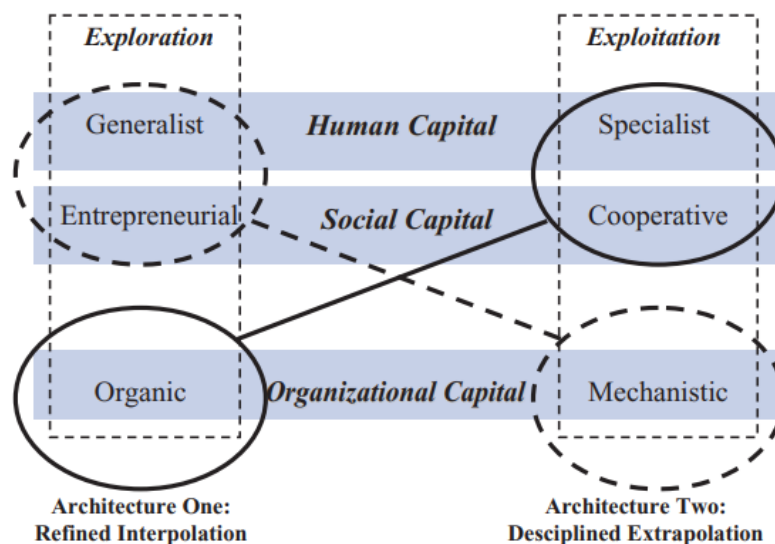
combinations of HR configurations and firm innovation, offering HR design options to navigate through ambidexterity paradoxes in light of the firm's strategy.

Building on the idea of Intellectual Capital and HR configurations or architectures to enhance ambidexterity, Kang & Snell (2009) argue that ambidextrous learning arises from IC architectures that underlie unique configurations of human, social, and organizational capital. They identify two distinctive architectures of IC that facilitate ambidextrous learning as we can see in Figure 10:

Refined interpolation is an architecture comprised of specialist HC supplemented by cooperative social capital and complemented by organic organizational capital.

Disciplined extrapolation is an architecture comprised of generalist HC, supplemented by entrepreneurial social capital and complemented by mechanistic organizational capital.

The authors aim to provide valuable theoretical implications for HRM systems, focusing on the best internal fits that can facilitate ambidextrous learning.



### Intellectual capital architectures and ambidextrous learning

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Figure 10 Intellectual capital architectures and ambidextrous learning (Kang & Snell, 2009)

Following this architecture, the authors present three distinctive sets of HR practices: the development system, which includes skill requirements, job specifications, rotation, and training, and is most strongly linked to managing human capital. The performance or control system, including job design, workflow, performance appraisal, supervision, and empowerment, is primarily associated with organizational capital. Ultimately, the employee relations system, encompassing attachment (induction and onboarding), socialization, advancement, and inducement, is most closely linked to social capital.

Confronting this perspective of two ideal combinations of IC to achieve ambidexterity Turner et al. (2015) analyzes other alternatives in the project management firm's environment, and Fernandez-Perez de la Lastra et al. (2017) identify three paths by which organizations could develop ambidextrous capabilities:

The presence of generalist or ambidextrous employees (ambidexterity through human capital).

The coordination of employees specialized in exploitation and exploration (ambidexterity through the social capital path).

By developing ambidexterity through the creation of structures, processes, and routines that enable diverse groups to integrate and focus on their respective exploitation and exploration activities, while codifying and preserving the knowledge they generate in their respective areas (OA through organizational capital).

In their analysis of “haute cuisine,” the authors conclude that the human resource policies and practices most commonly used to develop ambidextrous capacities in human capital are those developed in high-performance work systems (HPWS), which directly link HR practices as a context generator for enhancing intellectual capital. (Fernández-Pérez de la Lastra et al. 2022)

Kostopoulos et al. (2015) develop a cross-level model examining the effects of IC and its components on unit ambidexterity. They also reinforce the idea that organizational-level High Performance Human Resource practices significantly shape these effects, as well as the relationship between unit ambidexterity and unit performance.

Because IC accumulates and operates across levels, ambidexterity requires vertical alignment: unit-level IC and ambidextrous behaviors must be reinforced by firm-level HR systems, leadership priorities, and resource allocation. This cross-level fit explains why top-management processes and HR architectures jointly condition the IC and ambidexterity link.

In summary, integrating the perspectives of ambidexterity and intellectual capital provides a comprehensive explanation of how organizations adapt and thrive in turbulent contexts. HRM practices constitute the operational mechanisms through which intellectual capital is developed, enabling the dynamic balance of exploration and exploitation that defines ambidexterity. This rationale provides the foundation for Research Question 1, which explores how these three components are associated with ambidexterity at the organizational level.

## 2.8 The EFQM 2025 Model and ambidexterity

EFQM was founded in 1989 by European business leaders to promote a comprehensive, non-prescriptive management framework. The first version of the EFQM Excellence Model, introduced in 1992, underpinned the European Quality Award and quickly became a widely used “whole-organization” model built around enablers and results.

Through the 1990s and 2000s, the model was refined to strengthen its assessment logic (the RADAR cycle of Results–Approach–Deployment–Assessment & Refinement), to clarify cause–and–effect links between practices and outcomes, and to respond to new management themes such as stakeholder orientation, partnership working, and sustainability.

From 2010 to 2013, EFQM issued updates that more explicitly integrated social responsibility and long-term stakeholder value, while keeping the enablers/results architecture and a 1,000-point scoring logic.

In 2020 EFQM released a substantially redesigned model organized around three big questions—Why (Direction), How (Execution), and What (Results)—to match strategy, culture and delivery with stakeholder perceptions and measurable outcomes; it explicitly aligned with the UN Sustainable Development Goals and positioned the model as a vehicle for transformation and agility, not only operational excellence.

In 2025, EFQM published a refresh that keeps the 2020 backbone but puts “Sustainable Performance Improvement” at the centre, clarifies the distinction between creating sustainable value and broader sustainability, emphasizes technology leadership (including AI) as a driver of strategic execution, and streamlines the RADAR matrices from three to two while preserving the master rules and scoring rationale.

This 2025 text also restates the European values and SDG anchoring that have shaped recent editions, and explains use cases ranging from maturity baselining to transformation management to external recognition.

The EFQM Model and their awards were first designated as Business Excellence to emphasize their role in supporting business success. Over the years, the initial focus on quality or Total Quality Management (TQM) has shifted to a more comprehensive and integrative approach as Business Excellence, which includes a broader view of TQM, CSR, and Knowledge Management (Fonseca 2022).

The EFQM Model 2020 review was guided by the challenge of managing, in parallel, change and operations, introducing a criterion called “Managing performance and transformation” that encompasses the ambidexterity construct; with more collaborative leadership and an innovative mindset supported by disruptive thinking, which helps the organization in its effort to adapt to the future.

It is intended that organizations are more agile to respond to opportunities and threats (for example, the digital transformation) and achieve better levels of performance (Fonseca 2022).

Deliou and Koemtzi (2021), identify and analyze the modifications introduced to the EFQM Model in its 2020 version, which, as we have expressed, supposes a great leap forward in the evolution of the Model.

The review process for the 2020 version began in 2019, with working groups comprising members of the EFQM, representatives from award-winning organizations, EFQM partners, academics, trainers, and consultants. During the development of the new version of the model, the EFQM gathered the inputs from nearly 2000 change experts, engaged in 24 workshops internally, spoke personally to leaders of more than 60 diverse organizations, and created a core team of experts and contributors from across industries and academia (EFQM, 2019, 2020b). This feedback addressed the EFQM stakeholders’ concerns and highlighted the need for an updated business framework and methodology, enabling businesses to effectively deal with changes, transformation, and disruption while maintaining optimal business performance, giving relevance to ambidexterity as a critical management capability in an increasingly VUCA context (Deliou and Koemtzi 2021).

The 2020 version of the model is based on five key concepts: Culture, Leadership, Transformation and Performance, Flexibility and Adaptation, and Focus on the Future (Fonseca 2022) and it is structured around three different dimensions:

- Direction (why),
- Execution (how),
- and Results (what).

The dimension of Direction addresses the organization's purpose and the reason it follows a particular strategy, whereas the dimension of Execution focuses on the means of delivering the scope of Direction. Finally, the Results dimension indicates what the organization has achieved and what is intended to be achieved in the future (Deliou and Koemtzi 2021)

However, it should be clearly acknowledged that the EFQM 2020 Model is not a purely theoretical or academic construct. Instead, it is a business model designed with contributions from excellent organizations, business leaders, recognized field experts, and academicians, taking into account major worldwide megatrends and relevant business research. (Fonseca 2022)

Para-González et al. (2022) empirically analyze whether organizations adopting the EFQM Model improve learning ambidexterity and promote incremental and radical innovations. Their proposed framework is therefore helpful for managers, as it provides a deeper understanding of how organizations can improve the outcomes of their innovations by enhancing exploration and exploitation and following the EFQM model.

The study suggests that managers should consider combining learning knowledge (exploitation and exploration) within an EFQM environment, and that deploying learning competencies in an organization could lead to superior incremental and radical innovation.

Finally, the understanding that learning capabilities (ambidexterity) can act as mediators in the relationship between EFQM and innovations has important implications for managers. These learning capabilities are the triggers that managers should deploy to

have a positive impact on incremental and radical innovations. In this regard, managers should boost employees’ skills and competencies through continuous learning and training.

Specifically, managers are encouraged to employ and enhance various sources of knowledge, both internal (i.e., colleagues and departments) and external (i.e., competitors, universities, and research centers), promoting the exchange of knowledge within an organization, thus emphasizing the relevance of intellectual capital as a relevant enabler to develop ambidexterity capabilities.

Additionally, managers should leverage new technologies to focus on exploration. Ultimately, the importance of reinforcing employee motivation lies in supporting and developing activities that foster individual and team participation, creativity, and innovative behavior. (Para-González et al. 2022)

Para-González et al. (2022) Reinforce that future research should study which human resource management practices improve exploitation and exploration in relation to quality models, which is the aim of this dissertation, using Spanish organizations following the EFQM model data.

Thus, the EFQM Model provides an adequate empirical field for examining how ambidexterity is enacted in practice. Its emphasis on performance, transformation, stakeholder value, learning, and organizational improvement makes it particularly suitable for analyzing how excellence-oriented organizations translate ambidexterity into governance systems, management practices, and relational conditions. This provides the basis for Research Question 3, which investigates how EFQM-recognized organizations implement and attempt to consolidate ambidexterity as an organizational capability.

## 2.9 Closing

Taken together, the bodies of literature reviewed in this chapter converge on a unifying argument: in VUCA environments, organizational competitiveness depends on the

capability to balance stability and change, exploitation and exploration, operational discipline, strategic renewal, and innovation and transformation.

Ambidexterity emerges as the most influential theoretical construct explaining how firms navigate these paradoxes, and its development is rooted in the organization’s human, social, and structural assets. What began as structural or merely organizational solutions (Duncan 1976; Tushman and O’Reilly III 1996) has progressively evolved into a multidimensional capability shaped by cognition, leadership, culture, and micro-level behavioral systems. This shift from architecture to agency underscores that ambidexterity is not merely an organizational design problem but a fundamentally cultural, human, and relational one.

Dynamic capabilities theory provides a higher-order lens for understanding ambidexterity. Under conditions of turbulence, organizations depend on their ability to sense opportunities, seize them through timely resource allocation, and reconfigure existing assets (Teece, David J. et al. 1997).

Ambidexterity represents the operational manifestation of these meta-capabilities. Yet, dynamic capabilities do not operate in a vacuum; they rest on the quality and configuration of the organization’s Intellectual Capital. Human capital provides the cognitive and experiential foundation for learning; Relational Capital shapes knowledge exchange, collaboration, and trust; and organizational capital institutionalizes knowledge in routines, processes, and systems. The interdependence of these components underscores that ambidexterity cannot be achieved through isolated interventions, but rather through integrated architectures of knowledge, relationships, and structures.

Human Resource Management constitutes the strategic mechanism through which these architectures are developed and strengthened. High-performance work systems, leadership development practices, and relational HR configurations shape the social climate that enables individuals and teams to engage in both exploratory and exploitative behaviors.

HRM thus provides the micro foundations of ambidexterity, translating organisational intent into the everyday behaviours, interactions, and knowledge flows that make ambidexterity possible. In this view, HRM becomes a central element of the firm's dynamic capability infrastructure, responsible for cultivating the learning, flexibility, and collaborative orientation that underpin organizational renewal.

Ultimately, the EFQM Model provides a pertinent, empirical, and practical framework for examining these relationships. Although not a theoretical model, EFQM integrates the principles of stakeholder value, organizational learning, transformation management, and continuous performance improvements that align conceptually with ambidexterity and dynamic capabilities.

Its recent evolution, particularly the EFQM 2020 and 2025 versions, explicitly emphasizes organizational agility, cultural alignment, and transformation capacity. These are the mechanisms through which ambidexterity is enacted. EFQM therefore offers a robust, practice-based framework within which to observe how HRM systems and intellectual capital contribute to the development of ambidextrous capabilities in real organizations, as we will further explore in this dissertation.

In summary, the literature reviewed presents a coherent conceptual logic: VUCA environments require ambidexterity as a competitive advantage; ambidexterity depends on dynamic capabilities; dynamic capabilities are grounded in the organisation's intellectual capital; and intellectual capital is shaped and leveraged through HRM systems.

This integrated perspective provides the theoretical foundation for the empirical examination undertaken in this dissertation: to understand how HRM and intellectual capital jointly enable ambidexterity within organizations, and how organizations following the EFQM Model serve as valuable empirical references for developing these capabilities.

In this way, this literature review does not merely identify separate theoretical streams, but progressively builds the logic of the three research questions presented in this DBA

thesis: HRM as the context-creating mechanism, Intellectual Capital as the enabling resource configuration, and EFQM-based organizational practice as the empirical setting in which ambidexterity implementation can be properly observed.

## 3. Methodology

### 3.1 Introduction

This chapter is structured as follows: First, I justify the adoption of a mixed-methods sequential exploratory design. Second, I describe the qualitative phase, which involves AI-assisted content analysis of 250 EFQM memories and their corresponding assessment reports, followed by a thematic analysis focused on the 135 organizations that scored 500 points or more in the EFQM assessment. Third, I explain the quantitative phase, which applies the Analytic Network Process (ANP) to prioritize the intellectual capital factors identified in the qualitative phase through an expert focus group. Finally, I describe how the two strands were integrated and outline the procedures used to ensure methodological rigor and ethical compliance.

The research, combining AI-assisted content analysis of a massive dataset of 500 EFQM documents, plus the thematic analysis conducted on NVivo 15 to identify the most relevant patterns organized by comprehensive trees of codes answering the research questions about HR and IC enhancing business practices, plus a thorough analysis of performance (exploitation) and transformation (exploration) management initiatives and, finally, the ANP multi-criteria decision making process by an expert practitioner focus group to prioritize the most relevant IC factors identified in the thematic analysis constitute a novel and innovative research and methodological contribution.

### 3.2 Why a mixed-methods approach and research design scheme

Following the research gap identified in the literature review, it is clear that “what remains to be fully understood is 'how' Human Resource practices can support ambidexterity.” (Swart 2006), and considering the relevance of intellectual capital, intangible assets impacting on ambidexterity, the dissertation tries to answer three main “research questions”. A principal one and two additional research questions related to the first one to form a framework that links high-impact HR practices, intellectual capital, and its second-tier components (human capital, organizational capital, and relational capital), ambidexterity capability at the organizational level, and finally the EFQM 2025

Model that incorporates managing performance and transformation simultaneously as a relevant criterion:

The main research question is *“How do Intellectual Capital and its second-tier components (social capital, organizational capital, and human capital) impact to ignite and enhance ambidextrous capabilities at the organizational level?”* My objective with this research question is to identify and prioritize best management practices of excellent organizations, as outlined in the EFQM Model, that enhance their organizational, relational, and human capital, thereby reinforcing their ambidextrous capabilities. These practices could eventually be extended to other firms, with a significant impact on their ability to achieve ambidexterity. Through the qualitative thematic analysis of the EFQM data, we identify the most relevant IC factors in each of the three second-tier clusters. The ANP quantitative method, administered in the expert focus group, allows us to prioritize them and analyze their interrelationships.

The second research question is *“How HR practices can create an adequate context to enhance intellectual capital and organizational learning capacity?”* My objective with this research question is to identify the best-in-class high-impact human resource management practices that develop and reinforce intangible IC assets in organizations, thereby enabling ambidexterity. Thus, creating a framework that can be implemented in other organizations seeking to enhance their ambidexterity capacity. The IA content analysis of both formal memories and assessment reports, along with the thematic analysis, enables us to structure and identify the most relevant HR management practices that create an adequate context for promoting ambidexterity.

The third research question is *“how do organizations build and implement ambidexterity as an organizational capacity?”* The objective of this research question is to analyze the practices and business tools that organizations use to implement ambidexterity, simultaneously driving performance and transformation. Again, content analysis and thematic analysis enable us to present the results comprehensively and explain the most relevant management practices for delivering performance and transformation.

Mixed methods may be defined as research in which the investigator collects and analyzes data, integrates the findings, and draws inferences using both qualitative and quantitative approaches in a single study (Doyle et al. 2009). A mixed-methods approach is especially relevant in a pragmatic philosophical framework, which makes sense in addressing a relevant practitioner’s issue, as the one we aim to address in this research: understanding the impact of HR and IC factors on ambidexterity and their relative weight.

There are several reasons to use mixed methods in research (Bryman 2006), such as:

- Triangulation: convergence, corroboration, correspondence, or results from different methods.
- Complementarity: seeks elaboration, enhancement, illustration, and clarification of the results from one method with the results from another.
- Development: seeks to use the results from one method to help develop or inform the other method, where development is broadly construed to include sampling and implementation, as well as measurement decisions.
- Initiation: seeks the discovery of paradox and contradiction, new perspectives of [sic] frameworks, the recasting of questions or results from one method with questions or results from the other method.
- Expansion: seeks to extend the breadth and range of inquiry by using different methods for different inquiry components.

To answer the research questions, we had the opportunity to access a privileged dataset from “Club Excelencia en Gestión” (CEG), a Spanish organization licensed by EFQM to deliver the EFQM recognition known as “Sellos EFQM”, with relevant data from 250 Spanish organizations that follow the EFQM Model. This has oriented us to choose a mixed-methods approach, seeking complementarity and enhancing the thematic analysis of those extensive reports by integrating multi-criteria decision-making-related factor instruments, such as the ANP method, for expansion, extending the breadth of inquiry.

As Creswell and Creswell (2017) explain we have followed a sequential exploratory strategy that we develop thoroughly in this chapter (see Figure 11), which has involved a first phase of qualitative data collection through a comprehensive AI-assisted content analysis of the large EFQM data set containing formal memories from 250 organizations and 250 assessment reports of those same organizations, a thematic analysis to obtain the main factors explaining HR practices, IC and its second tier components management practices and ambidexterity practices on those organizations. This qualitative phase has been followed by a second phase of quantitative data collection and analysis that builds on the results of the first qualitative phase, and that is oriented towards prioritizing the IC's most critical and relevant factors following a multi-criteria decision-making process by expert judgment from top general and HR managers, using ANP methodology.

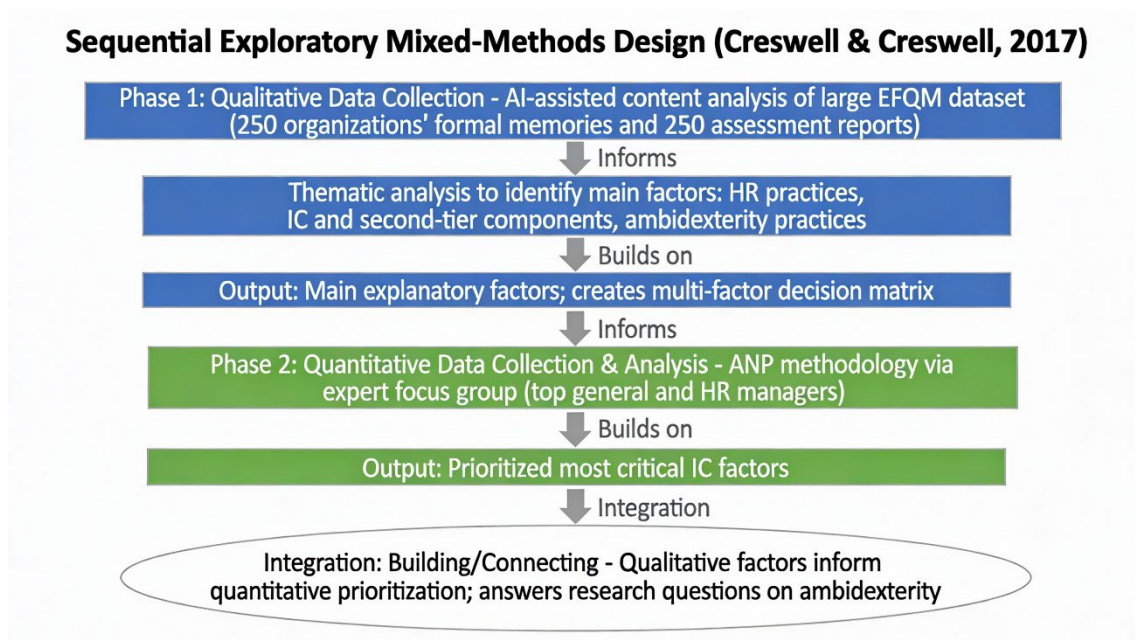


Figure 11: Sequential exploratory mixed-methods design based on (Creswell & Creswell, 2017)

Following Doyle et al. (2009) in their decision tree scheme to determine the path of the different mixed methods strategies, we could consider that in our dissertation, we have followed the following path:

Regarding the timing of quantitative and qualitative methods, we employed a *sequential approach*, starting with AI-assisted content analysis, followed by thematic analysis of the

findings, and concluding with the quantitative ANP administered to an expert focus group.

Regarding the weight of quantitative and qualitative methods, we could consider that there is a preponderance of qualitative methods: AI-assisted content analysis followed by a thorough thematic analysis, as it is oriented towards understanding the phenomenon of ambidexterity and the impact of HR and IC on its creation as an organizational capability, thereby answering the three research questions. The ANP decision-making method, as a quantitative method, serves to prioritize a large number of IC-identified factors necessary from both an academic perspective to present clearer results and from a practitioner view in order to focus management efforts and resources on those factors that could offer a greater return on investment in a context of scarce resources.

Finally, integrating or mixing quantitative and qualitative methods is achieved by connecting the data, as the identification of IC factors in the analyzed organizations through the thematic analysis of both formal EFQM memories and assessment reports enables us to create a multi-factor decision matrix that serves as the basis for the ANP questionnaire administered to the expert focus group.

This mixed-methods sequence is particularly innovative because it combines AI-assisted content analysis for large-scale document datasets with classical thematic analysis and a multi-criteria decision-making method (ANP), ensuring both depth of understanding and robust prioritization of the most critical factors.

The methodological design adopted in this dissertation is justified by the nature of the research problem itself, understanding *how* human resource practices and intellectual capital contribute to organizational ambidexterity. Such a phenomenon is intrinsically complex, multidimensional, and socially constructed. As Creswell (2018) argues, when a research question requires both generating qualitative insights and subsequently evaluating their relative importance, a sequential exploratory mixed-methods design is the most appropriate strategy. This design enables the inductive identification of

relevant constructs by combining qualitative evidence with quantitative techniques to assess their salience.

Furthermore, the pragmatic research paradigm underpinning this dissertation prioritizes methodological adequacy for problem-solving over adherence to any single epistemic tradition. Consequently, the combination of AI-assisted content analysis, thematic analysis, and Analytic Network Process (ANP) provides a coherent, theoretically grounded, and practically relevant approach for illuminating how HR and IC factors shape ambidexterity.

### 3.3 Research data source: EFQM memories and assessment reports

Club Excelencia en Gestión (CEG) is the Spanish official partner of the EFQM Foundation, which delivers the EFQM Model worldwide. The EFQM Model is a globally recognized management framework that supports organizations in managing change and improving their performance. Over the last 30 years, thousands of organizations worldwide have trusted the evolution of the various EFQM frameworks' releases, which have adapted in their content to the changing requirements of the management context, serving as a relevant reference for any organization seeking a long-term, sustainable future based on excellent, innovative, and sustainable management.

During the last 30 years of existence of CEG, the “Club Excelencia de Gestión” as a non-profit organization with more than 220 partners, organizations from different industries, sizes, and regional locations, has delivered a comprehensive assessment service to more than 3.000 organizations, based on the EFQM Model methodology to recognize and help them to improve and sustain their management practices and reports.

This service is based on an ecosystem led by CEG and integrated with a group of assessors and evaluators comprising more than 120 professionals from CEG's partners and independent experts with extensive experience in the EFQM Model. These professionals are specifically trained and qualified to deliver assessments using the model. Additionally, this ecosystem is supported by several consultants, officially recognized by

CEG, who deliver consultancy services to organizations seeking to work with the EFQM Model, prepare their assessments, or develop plans to enhance their management capabilities based on the assessment results. This ecosystem offers a comprehensive value proposition to Spanish organizations that use the model, with most operating continuously, demonstrating their confidence and satisfaction with the services provided.

The assessment process that has provided the “data set” for this dissertation is the main service so so-called “Sello EFQM” or EFQM award, which is structured in a 3-step process:

Preparation: In which the organization decides to work with the EFQM Model, compiles and creates a formal EFQM memory comprising its management practices and results following a pre-designed structure based on the different criteria and subcriteria defined in the EFQM Model. This information is incorporated into the EFQM assessbase tool, creating a digital blueprint of the organization's main management practices and results. This information serves as input and the basis for the ad hoc “assessors team,” which will thoroughly review the documentation and prepare a visit to the organization, during which they will contrast the information delivered by the organization in this preparation phase. From these data, we have obtained the “formal EFQM memories” based on the EFQM Model 2020 from 2021 to 2024, covering 342 organizations.

Assessment: In this phase of the process, the assessors' team visits the organization following a defined agenda with the management team to obtain the most relevant insights through interviews and focus groups that permit a real and thorough contrast with the previously prepared memories that have been studied in the previous month by the assessor's team.

Feedback: After the visit, the assessor's team works on the digital “assessbase platform” to prepare a complete and thorough report, structured according to the EFQM Model criteria and sub-criteria, that delivers the strengths and areas for improvement for each part of the EFQM Model. These assessment reports, from the same 342 Spanish

organizations that underwent this process from 2021 to 2024, constitute the second “data set” corpus of reports analyzed in this research.

Thus, from this process, we obtain two sets of relevant data for this research:

Formal memories, the output of the preparation phase of the process: They contain a thorough description of management practices organized by the EFQM 2020 Model scheme of criteria and sub-criteria, each of them explained following the radar scheme: what we do (the approach), how we do it (deployment), and how and when we review it (assessment and refinement). The organizations can include evidence and further information on some of those management practices. Additionally, criteria 6 and 7 include relevant results from both the perceptions of the most relevant stakeholders and performance outcomes.

Assessment Reports are the final output of the entire process, consisting of a report that includes the strengths and areas for improvement of each criterion and subcriterion, prepared by the assessors' team and delivered to the organization as input for their future improvement plans.

Both types of data are ideal for:

- AI-assisted content analysis because they are lengthy (more than 100 pages each), structured in a consistent manner based on the EFQM 2020 criteria and subcriteria, and rich in management practices related to the constructs studied in this thesis.
- Thematic analysis as they follow a common structure, enabling cross-case comparison.
- And ANP prioritization, as factor relevance can be interpreted from repeated patterns.

The EFQM 2020 update was intended to be a significant leap forward and a comprehensive revision from the previous EFQM 2013 Model. The 2013 version was primarily oriented towards “excellence” as a linear causality between agents' criteria and results, suited to a more traditional “total quality” vision. As Fonseca (2022) explains, the EFQM Model is regularly reviewed and adjusted to maintain its timeliness and

relevance. As part of a co-creation process involving members of EFQM, organizations that have won previous awards, EFQM partners, academics, trainers, and consultants, the 2019 revision led to the development of the EFQM 2020 Model. This model incorporates the United Nations Sustainable Development Goals (SDGs) and a set of European values that support business ethics.

The EFQM 2020 Model was guided by the challenge of managing change and operations in parallel, strongly introducing ambidexterity as a highly relevant business capacity in a VUCA context to reinforce a forward-looking vision and an effort to adapt to the future. The capacity to be more adaptable and agile is highly relevant in this version.

The EFQM 2020 Model is inspired by the methodology of the Golden Circle (Sinek 2009) and comprises seven criteria grouped in three dimensions:

- The Direction that responds to the WHY (Purpose, Vision, and Strategy; Organisational Culture and Leadership).
- The Execution that responds to the HOW (Stakeholder Involvement; Creating Sustainable Value; Driving Performance and Transformation).
- And the Results that solve the question of WHAT (Stakeholders’ Perceptions; Strategic and Operational Performance).

Interestingly, the EFQM Model introduced a whole criterion, so-called “Driving performance and transformation”, defined as: “Now and in the future, an organisation needs to meet important requirements to become and remain successful. On the one hand, it needs to continue successfully managing the delivery of its current business operations. (“driving performance”). On the other hand, constant changes inside and outside the organization must be managed in parallel to remain successful (“driving transformation”).

The combination of driving performance and transformation confirms the organization’s need to deliver for today while preparing for the future, recognizing the relevance of ambidexterity and introducing “exploration” and transformation capabilities and practices into the EFQM Model.

Besides, the EFQM Model (see Figure 12) encompasses a comprehensive range of criteria, including leadership, culture, people management, and results, which provide valuable data for identifying real management practices from “excellent” organizations. These practices can offer responses and insights to the research questions that this dissertation aims to answer.



Figure 12: EFQM Model 2020

As a practitioner, I have worked with the EFQM Model in my former organization, Pascual, for more than 18 years. The focus of my research on ambidexterity and the EFQM Model led me to contact CEG to explore the possibility of accessing this “non-public” data. I would like to extend my sincere gratitude to CEG for their vision and generosity in facilitating my access to this extraordinary dataset of 342 organizations that underwent the EFQM 2020 Model assessment.

In the context of my DBA Thesis, we entered into an agreement with CEG to formalize data access conditions, covering issues such as confidentiality and data protection, primarily to achieve aggregated conclusions that ensure the appropriate use of data in the research context. This agreement was extended to the core team of thesis directors and students who collaborated on the data analysis.

The data were shared with the researcher in January 2025 in PDFs of both the formal memories and the assessment reports for the 342 Spanish organizations that underwent the EFQM assessment between January 2021 and December 2024. As we have explained, we consider the data set unique, methodologically rich, and well aligned with the proposed mixed-methods research.

### 3.4 Research phase 1 – AI-assisted content analysis

After receiving the raw data set of both formal memories and assessment reports (342 organizations assessed between January 2021 and December 2024), we decided to exclude 91 records: those organizations with the EFQM 200 Award, the entry level to the Model, and those with the lowest score. Besides, and more importantly, the assessment process in these entrance-level organizations is limited to analysis at the criterion level rather than at the sub-criterion level, which affects the structure of formal memories and assessment reports, as well as the detail of the information provided by the organizations. Thus, the AI-assisted content analysis focused on the 250 organizations that met a sub-criterion assessment, having received an EFQM award with a score of 300-700. The following figure presents the profile of the 250 organizations by activity sector and number of employees.



## Data Set. 250 analyzed organizations following EFQM Model

### Data set profile. Formal memories and assessment reports



Figure 13: Data set profile. Formal memories and assessment reports

Even after reducing the number of organizations to analyze in the research, the 250 formal EFQM memories, along with the 250 EFQM assessment reports for those same organizations, constituted a massive qualitative data collection. Thus, we sought innovative methods to streamline and enhance the content analysis process, opting to use generative AI and large-scale language model-based applications, such as ChatGPT 4.0 and 4.5.

As Zhang et al. (2025) present, LLMs have significantly expanded the capabilities to process and analyze vast datasets across various domains, with ChatGPT emerging as a particularly noteworthy example by 2023. As Figure 13 explains, Gen AI is a useful tool for analyzing vast amounts of data in content analysis.

Along the same lines, Chew et al. (2023) call this approach LACA, or LLM-assisted content analysis, in this case oriented to support deductive coding of vast qualitative

datasets. In this case, we have used LLMs to pre-process and structure the EFQM documents, rather than to code them.

Kuckartz and Rädiker (2024) explain how the most powerful function of AI as a tool is its ability to quickly summarize large amounts of data while extracting key points. This ability far exceeds that of previous digital tools, such as QDA software. Thus, Gen AI LLMs, such as ChatGPT, appear as assistants or co-analysts in data exploration and evaluation.

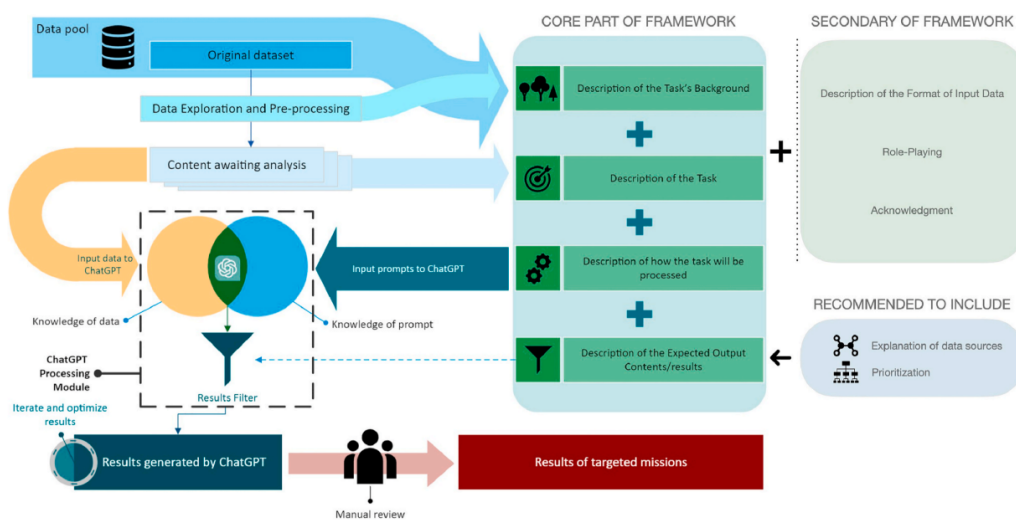


Figure 14 A suggested workflow for applying ChatGPT to handle qualitative analysis tasks (Zhang, H.E. et al., 2025)

After analyzing the extent of the data set received from CEG, we decided to form a research team comprising six double-degree students in Psychology and Business from Comillas University, as well as the doctoral DBA student, who served as the main researcher and coordinator. The objective was to follow a common analytical path, starting with the 250 formal EFQM memories and continuing with the assessment reports.

We first analyse a sample of 10 EFQM memories to construct and deparure the most appropriate prompts to search for the desired results for the thematic analysis (see step 1 in Figure 14).

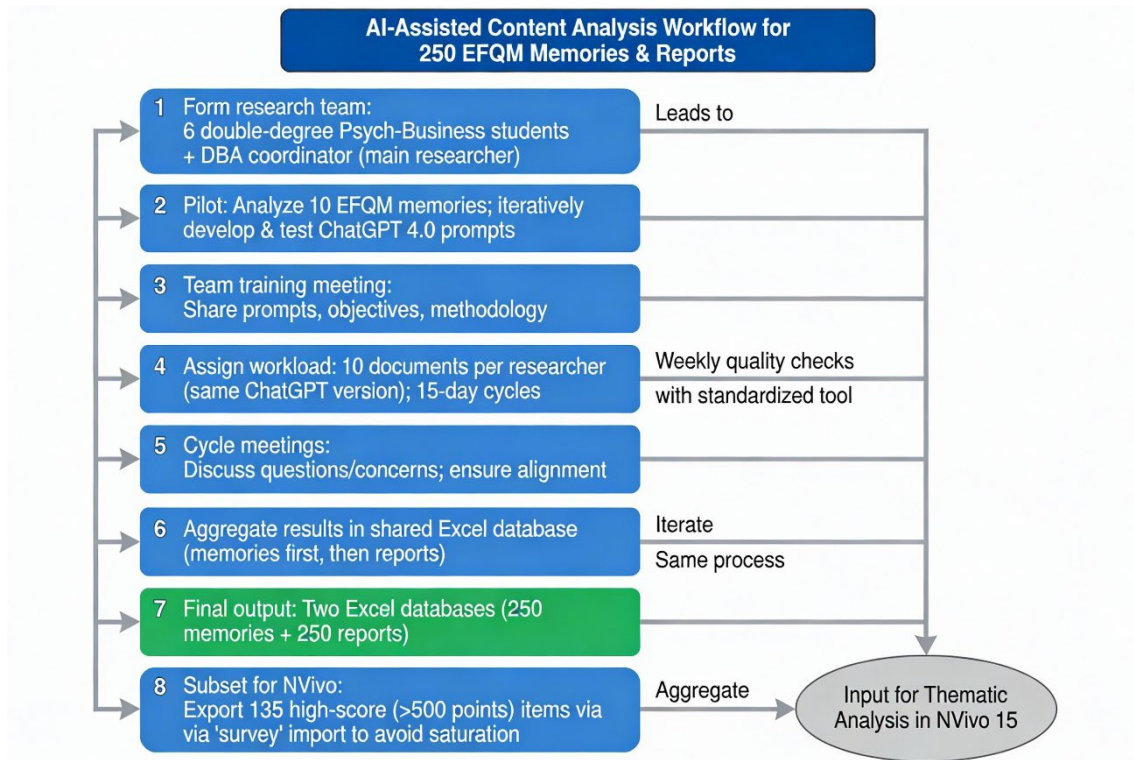


Figure 15: AI-assisted content analysis workflow

In an iterative exercise with ChatGPT 4.0 and the EFQM Memories, we ultimately developed the prompts (see Table 1), which were shared with the entire research team during a training meeting where we presented the research objectives and methodology.

Table 1: Prompts for the content analysis of the EFQM Memories

|  |   |
|--|---|
| Summary of the organization  |   |
|  | "First, I want you to produce a synthetic summary of no more than 500 words of the introductory chapter 'Key Information' from the EFQM memory submitted by the organization. In this summary, provide the basic data for the organization, such as turnover, number of employees, number of work centers, and other relevant organizational data; its history; and any other important aspects highlighted in that chapter. Provide your response without bullet points, without bold text, without sections, and without indentations. I want it in continuous prose and with single line spacing." |
| Analysis of Ambidexterity Practices in Criterion 5: Driving Performance and Transformation |   |

|  |  |
|--|--|
|  | <p>"Prepare a summary of chapter 5 ‘Driving Performance and Transformation’ from the EFQM memory attached as a PDF document, including the introduction to this criterion and sections 5.1, 5.2, 5.3, 5.4, and 5.5. Identify all initiatives related to managing performance and transformation, as well as all references in that chapter to ambidextrous organizations, ambidexterity, and capability development for balancing performance and transformation. Provide your response without bullet points, without bold text, without sections, and without indentations. I want it in continuous prose and with single line spacing."</p>   |
| <p>Search for high-impact HR practices</p>   |  |
|  | <p>"Identify step by step, throughout the entire content of the document and with the highest level of detail possible, all references to people management policies appearing in it. Specifically, references to leadership capability development; attraction, recruitment, and selection; knowledge, skills, and capabilities development and training; internal mobility; workplace safety; performance evaluation based on results; recognition policy; broad job descriptions; internal mobility and polyvalence; and initiatives to promote diversity, inclusion, and employee participation. Identify in which EFQM Model subcriterion these references appear. Provide your response without bullet points, without bold text, without sections, and without indentations. I want it in continuous prose and with single line spacing."</p> |
| <p>References about “relational capital”</p> |  |
|  | <p>"Identify step by step and with the highest level of detail possible, throughout the entire content of the document, all references that appear regarding Relational Capital, understood as references to relationships among people in the organization and relationships between people and other organizations, how they share tacit knowledge, collaboration and learning processes, internal conflict resolution, diversity and inclusion within the organization, and processes for people’s participation in ideation and innovation. Identify in which EFQM Model subcriterion these references appear. Provide your response without bullet points, without bold text, without sections, and without indentations. I want it in continuous prose and with single line spacing."</p>  |
| <p>References about “human capital”</p>      |  |
|  | <p>"Identify step by step and with the highest level of detail possible, throughout the entire content of the document, all references that appear regarding Human Capital, understood as anything related to talent management, management of people’s knowledge, skills, and capability development, and training and learning. Identify in which EFQM Model subcriterion these references appear. Provide your response without bullet points, without bold text, without</p>   |

|                                |   |
|--------------------------------|---|
|                                | sections, and without indentations. I want it in continuous prose and with single line spacing."  |
| About “organizational capital” |   |
|                                | "Identify step by step and with the highest level of detail possible, throughout the entire content of the document, all references that appear regarding Organizational Capital, understood as the organization’s explicit and documented knowledge reflected in its processes, procedures, management systems, ways of working, patents, and manuals. Identify in which EFQM Model subcriterion these references appear. Provide your response without bullet points, without bold text, without sections, and without indentations. I want it in continuous prose and with single line spacing." |

After defining and having tested their validity in the initial test phase, we created an Excel database to incorporate the results of the content analysis with the aid of ChatGPT and started the research, sharing a 10-memory workload to each of the team members, establishing a 15-day period to complete the research on every 10 memories. The instructions for proceeding were the same for each researcher, who followed a one-by-one analysis of each document to ensure comprehension of the results and their accuracy. We all used the same version of ChatGPT 4.0 for the content analysis.

ChatGPT functioned exclusively as a text-processing assistant, supporting pattern identification, data reduction and structuring, and summarization. It did not store, learn from, or retain any dataset-specific information, and all interpretive coding, theme refinement, and validation were completed by the research team. All AI interactions were conducted under OpenAI’s standard data-protection mode, which does not retain user inputs for model training. This reduces the exposure of anonymised text and aligns with confidentiality requirements.

After completing each period, we held a formal meeting with all research team members to discuss and share potential questions and concerns, ensuring alignment, inter-researcher reliability, validation procedures, and quality of the process. We also created a standardized quality assessment tool to systematically review a sample of the analyzed memories, which was deployed by all the researchers throughout the process to reinforce the validity of the results.

We added the research team's results to a common database, creating a comprehensive content analysis of the entire 250 EFQM memories. As the main researcher, we served as the aggregator of results from each research student, ensuring the quality of the outputs and the integrity of the database.

After completing the EFQM memory analysis, we followed the same path for the analysis of the EFQM assessment reports. We did the first test with 10 assessment reports to refine the prompts (see Table 2).

Table 2: Prompts for the EFQM assessment reports

|   |  |
|---|--|
| Strengths and areas for improvement in Criterion 5: “Driving performance and transformation.” |  |
|   | "Prepare a summary of the strengths and areas for improvement identified in Criterion 5: ‘Driving Performance and Transformation’. First, write the strengths and then the areas for improvement. Provide your response without icons, without bold text, without sections and without indentations. I want it in continuous prose and with single line spacing."  |
| Strengths and areas for improvement related to high-impact HR practices                       |  |
|   | "Identify throughout the entire content of the document the strengths and areas for improvement related to human resource management. Specifically, search for references to leadership capability development; attraction, recruitment, and selection; knowledge, skills, and capability development and training; internal mobility; workplace safety; results-based performance evaluation; recognition policies; broad job descriptions; polyvalence; and initiatives to promote diversity, inclusion, and employee participation. First, write the strengths and then the areas for improvement. Identify in which EFQM Model criteria these references appear. Provide your response without icons, without bold text, without sections and without indentations. I want it in continuous prose and with single line spacing." |
| Strengths and areas for improvement in Intellectual Capital practices                         |  |
|   | "Identify strengths and areas for improvement related to relational capital, understood as the relationships among people within the organisation and the relationships of these people with other organizations, how tacit knowledge is shared, collaboration and learning processes, internal conflict resolution, diversity and inclusion, and the processes through which people participate in ideation and innovation. Do the same for human capital, understood as talent   |

|  |
|--|
| <p>and knowledge management, the development of individual skills and capabilities, and training and learning. Do the same for organizational capital, understood as the organization’s explicit and documented knowledge reflected in its processes, procedures, management systems, ways of working, patents, and manuals. First, write the strengths and then the areas for improvement. Identify in which EFQM Model criteria these references appear. Provide your response without icons, without bold text, without sections and without indentations. I want it in continuous prose and with single line spacing."</p> |
|--|

After refining the prompts, we proceeded in the same “way of working” with the research team, establishing a 15-day working cycle to complete the analysis of 10 assessment reports for each researcher, making intermediate meetings after each working cycle to put in common doubts and questions in order to ensure a quality review and a common path of advancement, respecting the deadlines and the completion of the research. Summarizing the whole methodological process, both the prompts and the workflow followed allow procedural replicability.

We created a common database that contains the output of the entire analysis, similar to the EFQM memories, to ensure the completeness and quality of the content analysis.

The result of this 4-month-long research work was two complete AI-based content analysis databases, one summarizing the content of the results of the analysis of 250 EFQM memories of organizations with more than 300 points in the model, and a second one containing the content analysis results of the 250 EFQM assessment reports of those same organizations.

These two Excel databases constituted the input for the thematic analysis in NVivo 15. At this point, we made a relevant research decision, as we had previously observed a risk of saturation due to the repetitiveness of similar results and still a massive data set to analyze so we decided to export to Nvivo using the “survey” import of data functionality the 135 formal EFQM memories and assessment reports of the organizations of more than 500 EFQM points as the most advanced organizations with the most relevant ambidexterity business practices and HR and IC initiatives to enhance and promote ambidexterity organizational capabilities.

Besides, focusing on organizations scoring above 500 EFQM points enabled the analysis to examine ambidexterity not as an aspirational discourse but as a practical challenge faced by organizations recognized for management excellence.

Thus, to ensure methodological rigor, several safeguards were implemented throughout the AI-assisted content analysis process.

1. The prompts used for document analysis were iteratively tested and refined using a pilot sample of EFQM memories and assessment reports before being applied to the full dataset.
2. All outputs generated by ChatGPT were systematically reviewed by the research team, and any ambiguities or inconsistencies were resolved through collective discussion during the periodic coordination meetings.
3. The use of a standardized prompt structure and a shared analytical protocol ensured consistency across researchers and enhanced procedural replicability.
4. Generative AI was used exclusively as a data-processing and summarization tool to support the management of large volumes of textual material. All interpretive decisions, thematic identification, and analytical judgments remained under the direct control of the research team and were subsequently validated through the NVivo-based thematic analysis.

### 3.5 Research phase 2 – Thematic analysis in NVivo

Thematic analysis is a qualitative method for identifying, analyzing, and reporting patterns (themes) within data. It minimally organizes and describes your data set in rich detail (Braun and Clarke 2006). In this case, we have followed a theoretical thematic analysis searching for relevant patterns and business practices that could answer the different research questions about IC practices to enhance ambidexterity, HRM practices that create the appropriate context to promote IC and organizational learning, and how EFQM organizations implement their ambidexterity capabilities through performance and transformation business practices.

Braun and Clarke (2006) provide a six-phase framework to work with thematic analysis that explains how we have dealt with our research:

Phase 1: Familiarizing oneself with the data reinforces the idea of immersing oneself in it to the point of becoming familiar with its depth and breadth. As previously detailed, we conducted a comprehensive IA-enhanced content analysis of the raw dataset, which enabled us to gain a profound understanding of the data before exporting it to NVivo 15.

Phase 2: Generating initial codes: This phase involves generating initial codes from the data. In this initial phase, although we kept in mind the theoretical background about the different research questions analysed, we followed a “data-driven” coding, working systematically through the entire data set, following each case, but case by case (organization by organization), giving full and equal data attention to each data item following the functionality that offers NVivo to go through the text creating codes or adding text to previous created codes.

Phase 3: Searching for themes: In this phase, I began analyzing my codes and considering how different codes might combine to form an overarching theme. NVivo allows renaming and reordering the initial codes into more defined, structured code trees, forming themes and subthemes, and beginning to consider the relationships among the codes.

I concluded this phase with a collection of candidate themes, sub-themes, and all coded data extracts related to them. At this point, I began to appreciate the significance of individual themes. Although the latest version of NVivo offers AI-assisted coding, I completed the entire coding process manually, reviewing all the data used in the thematic analysis to ensure reliability and deepen my understanding of the research.

Phase 4: Reviewing Themes: Following this phase, after having codified the content of all 135 organizations, I conducted a second comprehensive review of themes. I refined them, and their sub-themes, and reorganized them to identify internal homogeneity and external heterogeneity. I attempted to identify clear, distinct themes across the different categories in both the formal memories dataset and the assessment report dataset. As

Braun and Clarke (2006) explain, at the end of this phase, you should have a fairly good idea of the different themes, how they fit together, and the overall story they tell about the data.

Phase 5: Defining and naming themes: In this phase, you must identify the “essence” of what each theme is about (as well as the themes overall) and determine what aspects of the data each theme captures. According to this phase, I thoroughly defined all themes and subthemes in NVivo. I then reordered the themes and sub-themes to reinforce the analysis using the software's functionality, differentiating the various research questions through coloured codes.

Phase 6: Producing the Report: This phase involves final analysis and report preparation. It is essential that the analysis presents a concise, coherent, logical, non-repetitive, and engaging account of the story the data tells.

As Allsop et al. (2022) explain, replicability is a primary concern for ensuring methodological robustness in qualitative research. The possibility of obtaining a license from Universidad de Comillas to work with NVivo for the entire thematic analysis has been crucial in reinforcing this research requirement.

In this research, the final report entails the analysis of both the 135 formal EFQM memories and assessment reports.

The EFQM Memories analysis has been structured according to the following thematic structure, as presented in Table 3:

*Table 3: Thematic analysis of EFQM Memories: structure and results*

| Thematic analysis centered on                        | Main results   |
|--|--|
| Ambidexterity: Performance, exploitation practices   | 383 references<br>10 parent themes<br>19 total themes and sub-themes |
| Ambidexterity: Transformation, exploration practices | 298 references<br>7 parent themes<br>25 total themes and sub-themes  |

|   |  |
|---|--|
| High-impact Human Resource practices                        | 633 references<br>13 parent themes<br>38 total themes and sub-themes |
| Intellectual Capital: Relational / Social Capital practices | 325 references<br>7 parent themes<br>32 total themes and sub-themes  |
| Intellectual Capital: Organizational Capital practices      | 296 references<br>10 parent themes<br>32 total themes and sub-themes |
| Intellectual Capital: Human Capital practices               | 261 references<br>7 parent themes<br>27 total themes and sub-themes  |

In the same way, the EFQM assessment reports analysis has been structured according to the following Table 4:

Table 4: Thematic analysis of EFQM Assessment reports. Structure and results

| Thematic analysis centered on  | Main results   |
|--|--|
| Ambidexterity: Managing performance and transformation: Strengths            | 436 references<br>11 parent themes<br>37 total themes and sub-themes |
| Ambidexterity: Managing performance and transformation: Areas of improvement | 318 references<br>9 parent themes<br>32 total themes and sub-themes  |
| High-impact HR Management: Strengths   | 335 references<br>10 parent themes<br>33 total themes and sub-themes |
| High-impact HR Management: Areas of improvement                              | 11 parent themes<br>34 total themes and sub-themes                   |
| Intellectual Capital - Human Capital: Strengths                              | 77 references<br>3 themes<br>32 total themes and sub-themes          |

|  |  |
|--|--|
| Intellectual Capital - Human Capital:<br>Areas of improvement          | 109 references<br>8 themes<br>23 total themes and sub-themes |
| Intellectual Capital - Relational Capital:<br>Areas of improvement     | 120 references<br>7 themes<br>18 total themes and sub-themes |
| Intellectual Capital - Organizational<br>Capital: Areas of improvement | 137 references<br>8 themes<br>21 total themes and sub-themes |
| Intellectual Capital - Organizational<br>Capital: Strengths            | 142 references<br>6 themes<br>23 total themes and sub-themes |
| Intellectual Capital - Relational Capital:<br>Strengths                | 151 references<br>5 themes<br>24 total themes and sub-themes |

The 23 most prominent IC factors have been identified through the formal EFQM memory thematic analysis, which extracted the parent themes and revised the assessment report's thematic analysis to identify additional themes that may have been overlooked in this dataset.

### 3.6 Research Phase 3 – Quantitative prioritization using ANP

After identifying the most relevant business practices through thematic analysis in NVivo 15 for developing and enhancing Intellectual Capital (IC) as a determinant of increasing and producing ambidexterity capabilities in organizations, we found 23 main IC factors grouped into three second-tier clusters: Human Capital, Organizational Capital, and Relational Capital.

To address our main research question, we required a robust methodological approach to prioritize and analyse factors from both academic and practitioner perspectives. The former one, to clarify the relevance of each factor relating these findings to previous research, to propose new knowledge in this field, and, besides, as a way to offer relevant frameworks to organizations to focus their effort on developing ambidextrous

capabilities, working on the most relevant factors prioritized by experts through a multi-criteria decision-making process.

This prioritization step was particularly important to identify potential misalignments between the practices most widely implemented by organizations and the factors perceived by experienced managers as most critical for ambidexterity.

As explained in the thematic analysis section, we conducted a thorough review and coding of the most relevant business practices used by the 500+ EFQM Spanish organizations to promote and enrich their Human Capital, Organizational Capital, and Relational Capital. This analysis and coding have enabled us to identify and describe a robust number of practices underlying the 23 factors analysed using the ANP methodology.

Table 5 presents the 23 IC factors identified in the thematic analysis of the EFQM formal memories and assessment reports, organized by the three second-tier IC clusters:

Table 5: Intellectual Capital factors and their definitions

| Clusters      | Code | Factors  | Definition   |
|---------------|------|--|--|
| Human Capital | CH01 | Management, assessment, and development of competencies and capabilities | Refers to management practices aimed at establishing systems for the assessment and development of competencies. These include evaluation processes, in some cases incorporating prior self-assessment or 180- and 360-degree feedback, as well as development conversations or links to capability development processes. |
| Human Capital | CH02 | Tools for internal knowledge sharing                                     | Refers to initiatives designed to share internal organizational knowledge among employees in order to develop human capital. Structured around the concept of knowledge management, these initiatives encompass the development of digital tools, mechanisms, forums, and spaces that facilitate knowledge sharing.        |

| Clusters               | Code | Factors                                    | Definition  |
|------------------------|------|--|---|
| Human Capital          | CH03 | Acquisition of external knowledge          | Participation in conferences, best practice forums, and professional networks is an opportunity for learning and capability development. It refers to the development of human capital through the acquisition of new external knowledge by engaging with external institutions through forums, initiatives, or programs. |
| Human Capital          | CH04 | Attraction and incorporation of new talent | Refers to organizational recruitment, selection, and hiring processes aimed at incorporating new talent. It includes the importance placed on cultural fit and the competency requirements for different roles.   |
| Human Capital          | CH05 | Training and development plans             | Refers to the widespread practice of designing and implementing annual training plans that address employees' development needs. It encompasses a wide range of content and topics, with a focus on training activities as a key mechanism for human capital development.   |
| Human Capital          | CH06 | Internal promotion and mobility            | Refers to organizational practices that promote vertical promotion and horizontal mobility across different positions, contributing to capability development. It includes references to “job posting” practices designed to increase transparency in internal mobility processes.  |
| Organizational Capital | CO01 | Strategic and critical knowledge           | Refers to organizational practices aimed at documenting strategic knowledge, including strategic plans and contextual analyses, as a way of codifying and preserving the organization's critical knowledge.   |
| Organizational Capital | CO02 | Organizational design                      | Refers to organizational design in terms of roles and job positions as mechanisms to  |

| Clusters               | Code | Factors                                | Definition   |
|------------------------|------|--|--|
|                        |      |  | foster knowledge specialization and to make explicit the knowledge and competency requirements associated with each role.  |
| Organizational Capital | CO03 | ERP, CRM, and information systems      | Refers to implementing information systems, such as ERP and CRM platforms, to centralize and digitize knowledge and manage operational and support processes, ensuring the effective management of data and information critical to organizational operations. |
| Organizational Capital | CO04 | Ways of working and explicit knowledge | Refers to the implementation of work methodologies that promote collaboration and continuous improvement in order to generate new knowledge. This includes approaches such as Lean, Kaizen, multidisciplinary teams, and agile methodologies.                  |
| Organizational Capital | CO05 | Risk management and compliance         | Documented risk management and compliance practices that structure organizational knowledge from a preventive and anticipatory perspective, developing internal control mechanisms to mitigate identified risks.   |
| Organizational Capital | CO06 | Digital tools for knowledge management | Refers to the implementation of digital tools that enable organizational members to access relevant information and organizational knowledge.  |
| Organizational Capital | CO07 | Processes and procedures               | Refers to the documentation of processes, procedures, and technical guidelines. Organizational document management systems that make organizational knowledge explicit and enable its standardization.   |

| Clusters               | Code | Factors   | Definition  |
|------------------------|------|---|---|
| Organizational Capital | CO08 | Information security and knowledge protection       | Refers to management practices aimed at protecting organizational data, information, and knowledge, including cybersecurity management and information protection systems and standards such as ISO 27001, with a strong risk management orientation. |
| Organizational Capital | CO09 | Integrated management system                        | Refers to the development of integrated management systems that include documented processes defining organizational operating standards. Key elements include process maps, documented processes, and the integration of management systems.         |
| Organizational Capital | CO10 | Knowledge transfer and dissemination                | Refers to initiatives and practices aimed at transferring and disseminating organizational knowledge through publications, best practice manuals, or other tools that enable the diffusion and sharing of organizational capital.                     |
| Relational Capital     | CR01 | Alliances and collaborations with external entities | Refers to organizational management practices aimed at establishing alliances and collaborations with external entities that strengthen external relational capital and enable the incorporation of new knowledge and learning.                       |
| Relational Capital     | CR02 | Culture promoting collaborative relationships       | Refers to cultural practices that foster and develop collaborative relationships within the organization.   |
| Relational Capital     | CR03 | Inclusive and diverse environment                   | Refers to management practices aimed at promoting diversity and inclusivity, largely linked to gender equality through equality plans and the inclusion of people with disabilities. It places less emphasis on psychological safety.                 |

| Clusters           | Code | Factors  | Definition   |
|--------------------|------|--|--|
| Relational Capital | CR04 | Tools for interpersonal knowledge sharing                          | Refers to management approaches and tools that promote and encourage knowledge sharing among individuals and teams within the organization.  |
| Relational Capital | CR05 | Leadership fostering relationship quality                          | Refers to how distributed and participative leadership can promote the development of relational capital, fostering a collaborative climate and mutual support among organizational members.   |
| Relational Capital | CR06 | Management mechanisms for participation and alignment              | Refers to the mechanisms, systems, and forums established by organizations to promote participation and alignment with strategy and objectives, from top management to operational levels.   |
| Relational Capital | CR07 | Participation and co-creation in ideation and innovation processes | Refers to practices aimed at stimulating and encouraging participation, particularly in ideation processes, to promote an innovative culture. A wide range of initiatives and approaches are used, all sharing the common objective of fostering ideation and participation. |

Taherdoost and Madanchian (2023) explain that multi-criteria decision-making (MCDM) methods have many applications in various research areas, including management. The Analytic Network Process (ANP) method is one of the most widely used MCDM methods. ANP is an extended version of the Analytic Hierarchy Process (AHP) (Saaty 2008) that enables feedback and interactions between and within clusters, making it a more comprehensive decision-making tool.

ANP’s main advantages include its ability to handle complex decision-making problems with multiple criteria, subjective inputs, and interdependent relationships among criteria. Thus, we found that ANP could be an adequate quantitative research tool to complete the mixed method approach that could lead us to answer our main research

question: *“How are intellectual capital and its components (human, organisational, and relational capital) associated with the development of ambidextrous capabilities at the organisational level?”*

The ANP did not only aim to statistically generalize results, but to structure expert sense-making around interdependent intellectual capital factors, reinforcing the interpretive validity of the qualitative findings.

The ANP method includes four main steps (Alcalá et al. 2025):

Step 1: Constructing the Model and Structuring the Problem. The problem is transformed into a network structure of decision clusters and elements (factors) connected through network links. Links denote the interdependencies between elements and clusters. Thus, a network should be built considering all interdependencies between them. In our research, we connect the robust literature review linking Intellectual Capital and its second-tier elements, Human Capital (HC), Organizational Capital (OC), and Relational Capital (RC), to the content and thematic analysis, and proceed to reach the identification of a set of business practices (so-called “factors” in ANP methodology) organized by the three clusters corresponding to HC, OC, and RC. In this first step, we created a matrix that identifies relationships among factors, both within and across clusters.

Step 2. Preparing the Pairwise Comparison Matrices and Priority Vectors: Pairwise comparisons on a pair of elements within the clusters are performed according to their relative importance on each element in another cluster to which they are connected. Similarly, pairwise comparisons between clusters are also made based on their influences and impact on achieving goals. During this phase, decision-makers (experts) judge the relative importance between a pair of elements and clusters using Saaty's fundamental scale (Saaty and Vargas 2006).

To facilitate the entire process, we utilized the “Superdecisions 3.2.0” software (Adams and Saaty 2003a). The SuperDecisions software is used for decision-making with dependence and feedback. It implements the Analytic Hierarchy Process (AHP) and the

Analytic Network Process (ANP). This software provides tools to create and manage AHP and ANP models, enter your judgments, obtain results, and perform sensitivity analyses on those results. It also supports complex, multilevel BOCR models (Benefits - Opportunities - Costs - Risks) (Adams and Saaty 2003b).

To accomplish this second step, we organized with the help of Club Excelencia en Gestión and Comillas University an expert focus group with 12 senior managers (see Table 6) from different organizations linked to the CEG ecosystem, both as members or EFQM services customers of CEG with broad experience in general management, HR, Quality, or Strategic functions. After introducing the ambidexterity issue and its link to HR and IC practices, we administered the previously defined pairwise questionnaire from Super Decisions according to the model.

The sample size of the group of experts follows the general criterion that the appropriate range is 8-30 (Alcalá et al. 2025), giving greater weight to the relevance of the experts' experience than to the number of experts. Access to CEG's ecosystem organizations and their managers has been crucial in forming a highly relevant and experienced group of experts, thereby reinforcing the validity of this decision-making process.

The role of the experts during the focus group was to complete the pairwise questionnaire (see Annex: ANP pairwise IC factors and clusters questionnaire), which was constructed based on the three clusters and 23 factors identified during the thematic analysis. Their role was evaluative rather than exploratory. The experts did not “invent” the factors; they evaluated their relevant importance by comparing factors and clusters pairwise with the Saaty scale.

Table 6: ANP expert group management profiles

| Expert | Function | Organizational Size – Number of employees | Sector | Years of management experience |
|--------|----------|---|--------|--------------------------------|
|--------|----------|---|--------|--------------------------------|

|                  |                                       |                          |                                |                    |
|------------------|---------------------------------------|--------------------------|--------------------------------|--------------------|
| <b>Expert 1</b>  | Quality                               | More than 1000 employees | Business Services              | 17 years           |
| <b>Expert 2</b>  | Sustainability, Innovation, Marketing | Less than 250 employees  | Business Services              | More than 35 years |
| <b>Expert 3</b>  | HR Management                         | More than 1000 employees | Industry and business services | More than 25 years |
| <b>Expert 4</b>  | Quality                               | More than 1000 employees | Health services                | 20 years           |
| <b>Expert 5</b>  | Quality                               | 250 – 1000 employees     | Health Services                | 15 years           |
| <b>Expert 6</b>  | CEO General Management                | Less than 250 employees  | Business Services              | More than 30 years |
| <b>Expert 7</b>  | Excellence and Management Systems     | More than 1000 employees | Business Services              | 20 years           |
| <b>Expert 8</b>  | CEO – General Manager                 | Less than 250 employees  | Business Services              | 20 years           |
| <b>Expert 9</b>  | Commercial and marketing management   | Less than 250 employees  | Business Services              | 22 years           |
| <b>Expert 10</b> | CEO – General Manager                 | More than 1000 employees | Industry                       | 31 years           |
| <b>Expert 11</b> | Medical Manager                       | More than 1000 employees | Health                         | More than 20 years |
| <b>Expert 12</b> | Engineering technical manager         | More than 1000 employees | Business Services              | 25 years           |

Step 3: Formation of the super matrix with the pairwise results from the expert focus group where the questionnaire was administered.

The supermatrix represents the influence of one element on another in the network. First, an unweighted supermatrix is obtained, yielding relative weights (eigenvectors) for the pairwise comparisons. It illustrates the interconnectedness among all the elements in the decision process.

Then, a weighted supermatrix is built by weighting the unweighted supermatrix blocks with the corresponding clusters' priorities (also referred to as the cluster matrix) to make it column-stochastic, or simply a stochastic matrix. Finally, a limit supermatrix is obtained by raising the weighted supermatrix to limit powers to converge until the supermatrix elements are identical, and a stable set of weights is obtained.

The entire set of results was calculated using Superdecisions 3.2.0 software.

Step 4: Identification of priorities and selecting the best alternatives. In the limit supermatrix, the final weight of each element in the decision process is accessible from the element's column. The element with the highest weight should be preferred over the others; namely, it has the highest priority. Mu et al. (2020) describe the best practices in ANP studies. The authors emphasize the importance of the literature review and expert opinions in identifying factors during ANP development, selecting a theoretical framework to contextualize these factors, providing clear definitions and sources/references for each factor, and reporting all generated matrices, among other key practices. This work applies this guide to design the proposed methodology and report results.

In this research, we have calculated both individual matrices from each of the 12 experts and an aggregated matrix to gain a global view of the entire expert group.

### 3.7 Integration of qualitative and quantitative strands

A defining feature of this research design is the deliberate and systematic integration of qualitative and quantitative methods. In line with the sequential exploratory mixed-methods approach adopted in this dissertation (Fetters et al. 2013) integration was not

treated as a final step but as a guiding principle that shaped the entire research process, from data analysis to interpretation. This section explains how integration was achieved at different stages of the study and how it contributed to answering the research questions.

Integration occurred through three complementary mechanisms: integration by connection, integration by interpretation, and integration by explanation of the research questions. Together, these forms of integration ensured coherence between the qualitative and quantitative strands, reinforcing the methodological robustness of the study.

Integration by connection was achieved through the explicit sequencing of methods. The qualitative phase, comprising AI-assisted content analysis followed by in-depth thematic analysis with NVivo, served as the foundation for the quantitative phase. The identification of high-impact human resource practices, intellectual capital dimensions, and ambidexterity-related practices from the EFQM memories and assessment reports led to the definition of 23 intellectual capital factors. These factors were not predefined but inductively derived from empirical data and refined through iterative coding, triangulation between document types, and validation by the research team. The resulting set of factors was then operationalized as the nodes of the Analytic Network Process (ANP) model. In this way, the qualitative findings directly informed the construction of the quantitative instrument, ensuring methodological continuity and construct validity.

Integration by interpretation occurred once the ANP results were obtained. The quantitative prioritisation of intellectual capital factors did not replace the qualitative findings but complemented them by providing an additional analytical lens. While the thematic analysis provided rich, contextualized insights into how organizations develop human, relational, and organizational capital to support ambidexterity, the ANP results enabled the assessment of the relative importance of these factors as perceived by experienced practitioners.

The interpretation of ANP priorities was therefore conducted considering the qualitative themes, allowing the researcher to examine convergence and divergence between qualitative prominence and quantitative salience. Factors that emerged as both qualitatively prominent and quantitatively prioritised were interpreted as particularly critical enablers of ambidexterity, while discrepancies between the two strands were analysed as theoretically meaningful rather than methodological inconsistencies.

Integration by explanation was achieved through the explicit alignment of the integrated findings with the research questions. The first research question, which examines how intellectual capital and its components contribute to ambidextrous capabilities, was addressed by combining the identification of intellectual capital practices in the qualitative phase with their prioritisation in the ANP phase.

The second research question, which focused on the role of human resource practices in creating a context that enhances intellectual capital and organisational learning, was primarily addressed through qualitative analysis.

The third research question, concerning how organizations build and implement ambidexterity as an organizational capability, was addressed through the analysis of Criterion 5 of the EFQM Model and the integration of qualitative insights with the prioritized factors.

Overall, integrating qualitative and quantitative strands strengthened the study's explanatory power. The qualitative analysis ensured depth, contextual richness, and empirical grounding, while the quantitative ANP analysis added structure, prioritization, and managerial relevance. This integrated approach aligns with the pragmatic paradigm underpinning the research, as it prioritizes methodological adequacy and usefulness in addressing a complex organizational phenomenon.

#### SEQUENTIAL EXPLORATORY MIXED-METHOD DESIGN

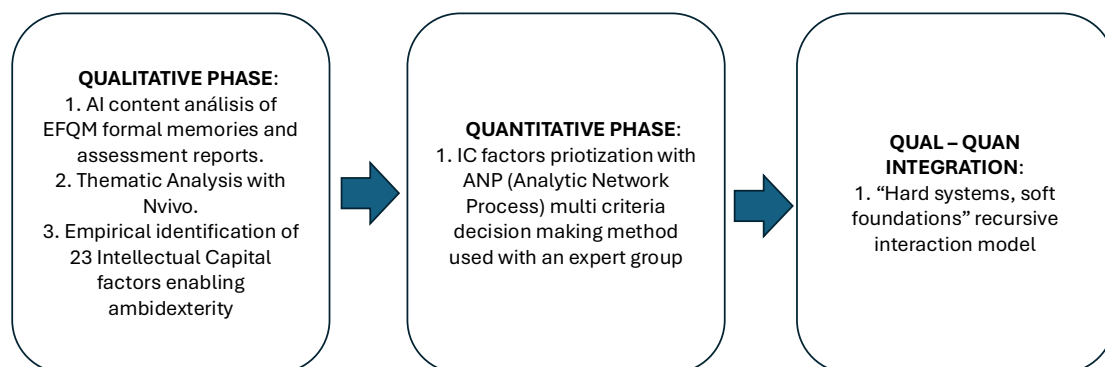


Figure 16: Sequential exploratory mixed-method design

### 3.8 Rigor, validity, and ethical considerations

Ensuring methodological rigor, validity, and ethical integrity was a central concern throughout the research process. Given the scale of the dataset, the innovative use of AI-assisted analysis, and the combination of qualitative and quantitative methods, specific procedures were implemented to enhance trustworthiness and to address potential methodological and ethical risks. This section outlines how rigor was ensured across the study's phases, in line with established criteria for qualitative and mixed-methods research.

Credibility was enhanced through multiple forms of triangulation. First, data triangulation was achieved by analysing two complementary types of documents: formal EFQM memory reports, which reflect organisations' self-reported practices, and EFQM assessment reports, which provide external evaluations conducted by trained assessors. The use of both sources allowed the researcher to contrast espoused practices with externally validated observations.

Second, methodological triangulation was achieved by combining AI-assisted content analysis with manual thematic analysis in NVivo and a quantitative ANP prioritization.

Third, investigator triangulation was ensured through the involvement of multiple researchers in the AI-assisted analysis phase, with regular calibration meetings to discuss interpretations, resolve discrepancies, and refine coding frameworks. These triangulation strategies reduced the risk of individual bias and strengthened the credibility of the findings.

Dependability was addressed through the systematic documentation of research procedures. All stages of the analysis followed predefined protocols, including standardized prompts for AI-assisted analysis, consistent coding procedures in NVivo, and clearly defined steps for the ANP process. The use of qualitative data analysis software (NVivo 15) and Superdecisions software for ANP contributed to procedural consistency and transparency.

Confirmability was supported by maintaining a clear separation between data, AI-assisted outputs, and researcher interpretations. AI-generated summaries and extracted references were treated as preliminary analytical aids rather than final interpretations. All thematic coding, theme refinement, and factor definition were conducted by the researcher through close reading and interpretive analysis.

Transferability was addressed through rich contextual description of the organisations, the EFQM Model, and the assessment process. While the study does not aim for statistical generalization, the detailed description of organizational contexts and practices allows readers to assess the applicability of the findings to other settings. The focus on organizations that achieved at least 500 points in the EFQM assessment ensures that the findings are grounded in practices observed in organizations recognized for management excellence, thereby enhancing the analytical relevance of the results.

Given the use of AI-assisted content analysis, additional measures were implemented to ensure the AI-specific validity and mitigate bias. AI tools were used solely to support data reduction, summarisation, and pattern identification in a large corpus of documents. They were not used to perform interpretive coding or to generate theoretical conclusions. Prompts were standardized and iteratively refined to minimize ambiguity and ensure consistency across documents. All AI-assisted outputs were reviewed by

human researchers, corrected where necessary, and validated against the original documents. This human-in-the-loop approach ensured that interpretive authority remained with the researchers, mitigating the risks of algorithmic bias or misinterpretation.

Ethical considerations and data protection were carefully addressed throughout the study. Access to EFQM memories and assessment reports was governed by a formal agreement with Club Excelencia en Gestión, which defined the conditions of use, confidentiality requirements, and data protection obligations. Original documents were stored securely, and access was restricted to authorized members of the research team. AI-assisted analysis was conducted using anonymized, researcher-generated text excerpts, ensuring compliance with confidentiality requirements and data protection regulations.

Finally, the mixed-methods design itself contributes to methodological rigor by balancing depth and breadth, interpretation and prioritization, and qualitative insight with quantitative structure. By combining AI-assisted content analysis, thematic analysis, and ANP, the study addresses the complexity of ambidexterity and intellectual capital from multiple perspectives, strengthening the overall validity and robustness of the findings.

## 4. Findings

### 4.1 Introduction

The principal aim of this chapter is to present the main findings of the research we conducted over the past months in a comprehensive and relevant manner, following the mixed-methods approach outlined in the previous chapter.

Thus, the results are exposed following the three Research Questions I have dealt with in this dissertation:

First, Section 4.2 presents the results related to the main research question:

*How are intellectual capital and its components (human, organizational, and relational capital) associated with the development of ambidextrous capabilities at the organizational level?*

As the main research question, we delve deeply into the results of this RQ and present the thematic analysis in NVivo 15, highlighting the business practices that Spanish excellent organizations follow to enhance and develop Human Capital (HC), Organizational Capital (OC), and Relational Capital (RC). We outline the strengths and areas of improvement identified by the evaluators' assessment teams on those same organizations.

Following the identification of these practices through thematic analysis, we present the 23 Intellectual Capital (IC) most relevant factors, organized into three second-tier clusters: HC, OC, and RC, which have served as the basis for the ANP methodology. We will then present the prioritization results for each of the 12 experts and the aggregate results.

Section 4.3 presents the results of the second RQs that have been described as:

*How do human resource practices create organisational contexts that enhance intellectual capital and organisational learning capacity, thereby supporting ambidexterity?*

In this RQ, we present the results of the NVivo thematic analysis, exposing the most relevant HR practices implemented by the Spanish excellent organizations and their definitions, and presenting as well the perspective of the evaluators-assessors about the strengths and weaknesses of those same organizations regarding those same HR High Impact practices that create the adequate context to increase the learning capacity of the organization.

Finally, section 4.4 presents the results of the last RQ:

*How do EFQM-recognized organizations implement and attempt to consolidate ambidexterity as an organizational capability in practice, particularly through the interplay between formal systems and relational conditions?*

In this section, we present the results of the thematic analysis of business and management practices presented in Criterion 5 of the EFQM Model, “Performance and Transformation” management, again from the perspective of the EFQM formal memories that present the organization's explanation of their practices and the triangulation with the assessment reports that present the perspective of strengths and weaknesses and help us to complete the analysis.

Our intention is to present the results as clearly, systematically, and transparently as possible, reflecting the logic of each research question and mirroring the methodology outlined in this dissertation.

As explained, the whole results are extracted from the raw data set of more than 300 Spanish organizations EFQM memories and assessment reports shared by “Club Excelencia en Gestion” to the DBA doctorate, and analyzed following a QUAL–QUAN mixed-methodology mainly based in a IA-assisted content analysis, an NVivo15 assisted thematic analysis of both the more than 500 points 135 formal EFQM memories plus the assessment reports of those same 135 organizations. Finally, we present the ANP results from the expert focus group, which included 12 highly experienced managers from various sectors and organizations of different sizes.

The results are presented in three sections organized by the three Research Questions, with their interpretation deferred to the next “discussion” chapter.

#### 4.2 Findings for RQ1: Intellectual Capital and Ambidexterity

As thoroughly presented in the literature review, IC is a relevant mediator that can ignite ambidexterity at the organizational level. Thus, starting with the content analysis of both formal memories and assessment reports, followed by thematic analysis in NVivo, we have identified business practices aimed at enhancing HC, OC, and RC.

In the thematic analysis of the EFQM 135 formal memories, we have obtained the following results as presented in Table 7:

*Table 7: Thematic analysis of 135 500 + EFQM Memories*

| <b>Thematic analysis centered on</b> | <b>Main results</b>  |
|--------------------------------------|--|
| IC: Human Capital practices          | 261 references<br>7 parent themes<br>27 total themes and sub-themes  |
| IC: Organizational Capital practices | 296 references<br>10 parent themes<br>32 total themes and sub-themes |
| IC: Relational Capital practices     | 325 references<br>7 parent themes<br>32 total themes and sub-themes  |

Besides, in the thematic analysis of the 135 assessment reports of those organizations, we have found the following results as presented in Table 8:

*Table 8: Thematic analysis of 135 500+ EFQM assessment reports*

| <b>Thematic analysis centered on</b> | <b>Main results</b> |
|--------------------------------------|---------------------|
|--------------------------------------|---------------------|

|  |  |
|--|--|
| IC - Human Capital: Strengths                  | 77 references<br>3 themes<br>32 total themes and sub-themes  |
| IC – Human Capital: Improvement areas          | 109 references<br>8 themes<br>23 total themes and sub-themes |
| IC – Organizational Capital: Strengths         | 142 references<br>6 themes<br>23 total themes and sub-themes |
| IC – Organizational Capital: Improvement areas | 137 references<br>8 themes<br>21 total themes and sub-themes |
| IC – Relational Capital: Strengths             | 151 references<br>5 themes<br>24 total themes and sub-themes |
| IC – Relational Capital: Improvement areas     | 120 references<br>7 themes<br>18 total themes and sub-themes |

#### 4.2.1 Human Capital findings

Table 9 presents the Human Capital factors identified in the EFQM formal memories thematic analysis:

Table 9: Human Capital Factors, definitions and cites

| Human Capital factors  | Definition  | Representative quotes   |
|--|---|---|
| <b>Human Capital: Thematic analysis in the EFQM Memories</b>                             |   |   |
| <b>Management, assessment, and development of competencies and capabilities – (CH01)</b> | Refers to management practices aimed at establishing systems for the assessment and development of competencies. These include evaluation processes, in some cases incorporating prior self-assessment or 180- and 360-degree feedback, as well | “Regarding performance evaluation, periodic analyses are conducted to measure employees’ progress in competencies and to assess their contribution to the achievement of organizational objectives. These evaluations, together with improvement plans, reinforce a |

| Human Capital factors                                     | Definition   | Representative quotes  |
|---|--|--|
|   | as development conversations or links to capability development processes.   | <p>culture of learning and adaptation.”</p> <p>“The organization implements a competency-based management system that aligns employees’ knowledge, skills, and attitudes with the organization’s values, as defined in strategic plans. This system also involves competency assessment, which is a regular practice and forms the basis for performance evaluation, taking into account the competencies required for each role.”</p>   |
| <p><b>Tools for internal knowledge sharing (CH02)</b></p> | <p>Refers to initiatives designed to share internal organizational knowledge among employees in order to develop human capital. Structured around the concept of knowledge management, these initiatives encompass the development of digital tools, mechanisms, forums, and spaces that facilitate knowledge sharing.</p> | <p>“The organization promotes knowledge management through tools such as Yammer and SharePoint, which facilitate collaboration, knowledge transfer, and access to shared information”.</p> <p>“In terms of knowledge management, the organization has developed an intranet as a key tool for information distribution and access to relevant documentation. “The employee portal enables each team member to access up-to-date information on procedures, internal regulations, and professional development opportunities,” ensuring smooth communication and efficient management of explicit knowledge”.</p> |
| <p><b>Acquisition of external knowledge (CH03)</b></p>    | <p>Participation in conferences, best practice forums, and professional networks is an opportunity for learning and capability development. It refers to the development of human capital through the acquisition of new external knowledge by engaging in</p>   | <p>“Organizational learning is fostered through participation in conferences, technical workshops, and innovation forums, where employees can</p>  |

| Human Capital factors   | Definition   | Representative quotes  |
|---|--|--|
|   | forums, initiatives, or programs with external institutions.   | <p>share knowledge and learn from other institutions”.</p> <p>“The organization also promotes learning through professionals’ participation in benchmarking studies and strategic workshops, encouraging the exchange of knowledge and best practices with other organizations in the sector.”</p>   |
| <p><b>Attraction and incorporation of new talent (CH04)</b></p> | <p>Refers to organizational recruitment, selection, and hiring processes aimed at incorporating new talent. It includes the importance placed on aspects such as cultural fit and the competency requirements defined for different roles.</p>                                   | <p>“Recruitment and selection processes are designed to ensure that employees possess the technical knowledge and skills required to achieve the strategic objectives of the library.”</p> <p>“Talent management focuses on attracting and retaining top professionals aligned with the institution’s purpose. To this end, rigorous selection processes are implemented, and attractive conditions are offered, including enhanced compensation policies, social benefits, and formal recognition plans.”</p> |
| <p><b>Training and development plans (CH05)</b></p>             | <p>Refers to the widespread practice of designing and implementing annual training plans that address employees’ development needs. It encompasses a wide range of content and topics, with a focus on training activities as a key mechanism for human capital development.</p> | <p>“Furthermore, continuous professional development is promoted through the identification of training needs based on competency assessments. This approach is aimed at continuously enhancing employees’ capabilities and is incorporated into the Annual Training Plan, demonstrating a commitment to continuous improvement and adaptation to changing needs.”</p> <p>“The development of employees’ skills and capabilities is managed through the Annual Training Plan,</p>                              |

| Human Capital factors                         | Definition  | Representative quotes  |
|---|---|--|
|   |   | which integrates training needs identified through performance evaluations, strategic requirements, and proposals from employees themselves.”  |
| <b>Internal promotion and mobility (CH06)</b> | Refers to organizational practices that promote vertical promotion and horizontal mobility across different positions, contributing to capability development. It includes references to “job posting” practices aimed at increasing transparency in internal mobility processes. | <p>“Internal promotion is prioritized in filling vacancies, with strategically planned processes and training support to ensure candidates are adequately prepared, thereby ensuring efficient management of organizational growth.”</p> <p>“Regarding internal mobility and career development, the organization has established processes that facilitate employees’ progression within the organization. Professional development pathways have been designed to enable growth across different roles and functions.”</p> |

As we can see, most of the identified themes (see detailed results in Appendix B) are very close to the “core” of the HR Function traditional practices and policies, focusing on developing the capabilities and competencies of individuals within the organization. The three most frequently referenced themes are training programs and initiatives, with a significant number of subthemes identified, as well as individual appraisal evaluation processes related to development plans, talent pool identification and management, and the development of digital tools to promote the sharing of internal knowledge among employees.

When we analyze the strengths related to HC identified in the assessment reports, we find the following most relevant themes as presented in Table 10:

Table 10: Human Capital significant strengths

| Themes  |  | Definition   |
|---|--|--|
| <b>Human Capital: strengths thematic analysis in assessment reports</b> |  |  |
| <b>Organizational well-being</b>  |  | The concept refers to initiatives by organizations to implement health plans and workplace wellness programs, create ad hoc "happiness" structures, and achieve a balance between personal and professional life, all aimed at improving the work environment. All this reinforces the attraction and loyalty of talent by boosting human capital. |
| <b>Training and capacity building</b>                                   |  | Identified strengths related to the effort to train and educate the organization's human capital. It is proposed that training plans, organizational training structures, increased training hours, or investment in training be considered.   |
| <b>People Management Systems</b>  |  | Systematization of People management through models, systems, and end-to-end integrated People processes. They promote the development of Human Capital. Training would be part of these systems, but given its relevance, I leave it as a separate code at the same level as this one.  |

The most relevant strengths identified are centered on training and development plans and People Management Systems, which are the core responsibilities of “mainstream” HR Functions with mature models implemented in most organizations.

To complete the thematic analysis about Human Capital areas of improvement, we have identified the following most relevant themes in the thematic analysis presented in Table 11:

Table 11: Human Capital areas of improvement in assessment reports

| Themes                                   |  | Definition  |
|--|--|---|
| <b>Benchmarking in People Management</b> |  | Develop benchmarking initiatives to enhance people management by identifying best practices in other organizations. |

| Themes  | Definition  |
|---|---|
| <b>Wellness, health, and absenteeism</b>                | Improvement initiatives focused on enhancing health and comprehensive well-being, and on implementing measures to mitigate increases in absenteeism in organizations.   |
| <b>Listening to employees</b>                           | Improvements linked to the processes of listening to People, frequency, segmentation, and response to identified needs. In short, to reinforce the approaches of listening and closeness to people.   |
| <b>Leadership Evaluation and Impact</b>                 | It refers to opportunities for improvement related to strengthening the evaluation and impact of leadership and its effectiveness. To have tools that allow us to measure this impact and, where appropriate, improve it.   |
| <b>Performance Management</b>                           | It refers to opportunities for improvement linked to the improvement of performance management, either in terms of its extension of staff, its approach, continuity in development conversations or the requirement in the setting of objectives to be challenging.   |
| <b>Talent Identification and Development</b>            | It refers to the identified need to enhance the identification and internal development systems within organizations, particularly those that will eventually fill key positions. Mechanisms for identifying and evaluating talent and its development.   |
| <b>Promotion of the desired culture and recognition</b> | It refers to the need to improve and enhance the recognition systems of both economic and non-economic organizations, clearly linking them to elements such as performance and the organization's values. In a way, it refers to the need to reinforce and recognize the behaviors we want to promote, such as developing human capital and building loyalty. |

The thematic analysis of Human Capital practices in EFQM formal memories reveals a dense, highly structured, and predominantly individual-centric configuration of Human Capital development. The most salient pattern is the strong dominance of formal training, capability development, and competency-based systems as the core mechanisms through which organizations conceptualize and operationalize Human Capital.

Training and development plans, competency assessment and development systems, individual development plans, and leadership development programs concentrate the highest number of references, indicating that Human Capital is primarily framed as an accumulative asset built through planned, formalized, and system-driven HR interventions.

A second clear pattern is the institutionalization of Human Capital through planning and systematization. References to HR strategic plans, talent management models, succession planning, structured onboarding, competency frameworks, and people management systems point to a Human Capital approach that is strongly embedded in formal governance mechanisms. Human Capital development is therefore not portrayed as emergent or informal, but rather as something that must be anticipated, designed, measured, and monitored. This reinforces the view of Human Capital as a resource to be managed through predictability, standardization, and alignment with organizational needs.

A third pattern concerns the prevalence of skill-based and capability-based development over experiential or relational learning. While references to coaching, mentoring, internal training, and knowledge-sharing tools exist, they appear largely subordinate to formal training structures rather than functioning as autonomous learning mechanisms. Knowledge sharing is present but often framed as a technical or digital enabler rather than as a social learning process. This suggests that Human Capital is predominantly developed through codified learning channels, with less emphasis on informal, tacit, or relationally embedded learning.

The analysis of strengths related to Human Capital in assessment reports reinforces and sharpens these patterns. Assessors consistently recognize training capacity, people management systems, leadership development, and well-being initiatives as strengths. Human Capital strengths are closely associated with the maturity and completeness of HR systems, including performance management, competency frameworks, onboarding processes, and talent attraction and retention practices. Notably, leadership capacity building, coaching, and soft skills development emerge as recognized strengths, but

again within structured and programmatic formats rather than as emergent organizational practices.

Another relevant pattern in the strengths is the integration of Human Capital with employee well-being and stability. Organizational well-being, work-life balance, job stability, and diversity and inclusion appear as reinforcing elements of Human Capital, suggesting that Human Capital is also associated with workforce retention, loyalty, and sustainability, not only with capability accumulation. However, these elements are still framed as policies and programs rather than as dynamic relational processes.

The areas for improvement in Human Capital reveal a complementary, highly informative pattern. Improvement opportunities systematically point towards the limits of formalization and system maturity. Recurring themes include improving the effectiveness of performance management, competency-based management, leadership impact measurement, talent identification and succession, internal mobility, and career planning. These areas for improvement indicate that, while systems are widely present, their depth, integration, and developmental impact are often perceived as insufficient.

A particularly salient improvement pattern concerns the weakness of feedback, listening, and personalization mechanisms. Opportunities to enhance employee listening, internal communication, employee experience, and personalized development pathways suggest that Human Capital systems are often top-down, standardized, and insufficiently adaptive to individual and contextual differences. This reinforces the image of Human Capital as robust in structure but less responsive.

Another consistent improvement theme relates to future-oriented capability development. References to reskilling, upskilling, digital capability development, innovation skills, and change management capacities indicate perceived gaps in preparing Human Capital for transformation rather than for operational continuity. Succession management, talent loyalty, and knowledge preservation also emerge as recurrent concerns, highlighting vulnerabilities in the long-term sustainability of Human Capital stocks.

Taken together, the Human Capital thematic patterns depict a configuration characterized by high formal maturity, strong investment in structured development, and alignment with traditional HR responsibilities, combined with persistent gaps in adaptability, personalization, future-readiness, and integration with broader organizational learning dynamics. The Human Capital practices identified are coherent, systematic, and extensive, yet they remain largely anchored in individual development and HR system effectiveness, rather than in collective learning or relational capability-building mechanisms.

#### 4.2.2 Organizational Capital findings

The thematic analysis of the organizational capital issue, as presented in the 135 formal EFQM Memories of organizations with a score of 500 or more points in Table 12, reveals the following most relevant themes.

Table 12: Organizational capital thematic analysis in EFQM Memories

| Organizational Capital factors                                    | Definition  | Representative quotes   |
|---|---|---|
| <b>Organizational Capital: Thematic Analysis in EFQM Memories</b> |   |   |
| <b>Strategic and critical knowledge (CO01)</b>                    | Refers to organizational practices aimed at documenting strategic knowledge, including strategic plans and contextual analyses, as a way of codifying and preserving the organization’s critical knowledge. | <p>“Strategic plans and their monitoring processes are documented to ensure alignment with institutional objectives.”</p> <p>“The organization develops and documents its strategy through a systematic and structured approach, using tools such as strategy maps and balanced scorecards that capture objectives and action plans. This practice ensures that the strategy is not only known and understood across the organization, but also coherent and aligned with organizational capabilities.”</p> |
| <b>Organizational Design (CO02)</b>                               | Refers to organizational design in terms of roles and job positions as mechanisms to foster knowledge specialization and  | “Professional profiles manual: Includes detailed descriptions of competencies, functions, and   |

| Organizational Capital factors                       | Definition   | Representative quotes   |
|--|--|---|
|  | to make explicit the knowledge and competency requirements associated with each role.  | responsibilities for each job category.”<br>“Explicit knowledge is also reflected in the clear definition of roles and responsibilities within the organizational structure, documented through organizational charts and job descriptions.”  |
| <b>ERPs, CRMs, and information systems (CO03)</b>    | Refers to implementing information systems, such as ERP and CRM platforms, to centralize and digitize knowledge and manage operational and support processes, ensuring the effective management of data and information critical to organizational operations. | “Tools such as XXX and XXXX enable the collection, analysis, and centralization of data, facilitating more efficient management and informed decision-making. These platforms are continuously developed and adapted to organizational and user needs, highlighting the virtualization of services and the modernization of management systems as key factors to ensure scalability and reliability of operational processes.”<br>“These systems integrate information on customers, finance, and operations, allowing efficient and organized access to the organization’s explicit knowledge. Modernization plans are also mentioned, including the development of technological tools tailored to the company’s specific needs, such as Euroinforme, which generates automated reports for decision-making.” |
| <b>Ways of working and explicit knowledge (CO04)</b> | Refers to the implementation of work methodologies that promote collaboration and continuous improvement in order to generate new knowledge. This includes approaches such as Lean, Kaizen, multidisciplinary teams, and agile methodologies.                  | “Ways of working at the organization are characterized by the integration of technological innovation, process standardization, and a focus on continuous improvement. A collaborative and multidisciplinary environment is fostered, enhancing efficiency  |

| Organizational Capital factors                              | Definition  | Representative quotes   |
|---|---|---|
|   |   | <p>and quality of care. The organization has adopted methodologies such as Lean Management to improve healthcare processes, such as implant management and control, with the aim of optimizing operational efficiency.”</p> <p>“The XXXX methodology facilitates the implementation of improvements in operational efficiency, while the XXXX Model enables the collection and evaluation of employee ideas for process optimization. These initiatives have increased the integration of organizational knowledge into daily management, ensuring that best practices are documented and replicated across the company.”</p> |
| <p><b>Risk management and compliance (CO05)</b></p>         | <p>Documented risk management and compliance practices that structure organizational knowledge from a preventive and anticipatory perspective, developing internal control mechanisms to mitigate identified risks.</p> | <p>“Operational and strategic risks associated with each process have been identified and evaluated using documented and systematized tools that form part of the integrated management system.”</p> <p>“Risk management processes are formally established, with clear methodologies for the identification and assessment of risks related to both information security and the overall operation of the organization, contributing to comprehensive management of organizational knowledge.”</p>   |
| <p><b>Digital tools for knowledge management (CO06)</b></p> | <p>Refers to the implementation of digital tools that enable organizational members to access relevant information and organizational knowledge.</p>  | <p>“Knowledge centralization: Integrated portals facilitate the search and access to critical information, ensuring a seamless user experience.”</p>  |

| Organizational Capital factors                                    | Definition   | Representative quotes   |
|---|--|---|
|   |  | <p>“Internal knowledge management: A restricted-access server is used to share relevant information for daily management, such as shift changes, announcements, and permissions. It also includes the digital management of clinical records through systems such as XXXX”.</p>   |
| <p><b>Processes and procedures (CO7)</b></p>                      | <p>References to documentation of processes, procedures, and technical sheets. Document management of the organization that allows the knowledge of the organization to be made explicit and standardized.</p> | <p>“The organization has established documented procedures that describe in detail how tasks and responsibilities should be carried out in each area. These procedures ensure consistency and quality in the delivery of products and services, meeting customer expectations and maintaining operational excellence.”</p> <p>“Procedures at the Organization are clearly defined, documented, and continuously updated. This ensures standardization of practices, quality of care, and operational efficiency. The Strategic Plan 2021–2023 includes the review and updating of key procedures and protocols to ensure continuous improvement.”</p> |
| <p><b>Information security and knowledge protection (CO8)</b></p> | <p>Refers to the documentation of processes, procedures, and technical guidelines. Organizational document management systems that make organizational knowledge explicit and enable its standardization.</p>  | <p>“In terms of management systems, the hospital has developed a Data Processing Center (DPC) responsible for safeguarding stored information and maintaining systems that ensure efficient information flow. In addition, technological tools such as electronic health records and data backup systems have been implemented to guarantee</p>   |

| Organizational Capital factors                            | Definition  | Representative quotes   |
|---|---|---|
|   |   | <p>continuity and recovery of critical information.”</p> <p>“Another key aspect is the protection and management of institutional knowledge. The school uses an intranet and digital tools such as Moodle to store and share documentation and educational resources. These systems ensure accessibility of information while reinforcing security and regulatory compliance.”</p>  |
| <p><b>Integrated Management System (CO9)</b></p>          | <p>It refers to the development of integrated management systems that include documented processes that establish the organization's operating standards. Process mapping, documented processes, and system integration are key elements of the same.</p> | <p>“The organization implements an integrated management system that includes quality certifications such as ISO 9001, environmental certifications such as ISO 14001, and information security certifications such as ISO 27001, all subject to internal and external audits. This framework ensures alignment between organizational processes and overall strategy, enabling continuous improvement based on key performance and sustainability indicators.”</p> <p>“The Organization has developed and certified its own management system aligned with ISO 9001 and ISO 14001 standards, covering processes, procedures, and operational manuals. This system is periodically reviewed through tools such as Management Review and internal and external audits to ensure alignment with the company’s strategic objectives and applicable regulations.”</p> |
| <p><b>Knowledge transfer and dissemination (CO10)</b></p> | <p>It refers to initiatives and practices that transfer and disseminate the organization's knowledge through publications, manuals of good practices,</p>   | <p>“The Organization prioritizes the management and transfer of documented knowledge through the development of manuals,</p>  |

| Organizational Capital factors | Definition  | Representative quotes  |
|--------------------------------|---|--|
|                                | or other tools that facilitate the sharing of organizational capital. | <p>guidelines, and protocols that support clinical and administrative activities.”</p> <p>“Methodologies have been developed for knowledge modeling and transfer, such as the internationalization project of the XXXXXX labor inclusion model. This project has been implemented in collaboration with the Inter-American Development Bank (IDB) in Latin American countries, where manuals and guidelines have been created to adapt the model to different contexts. The resulting documentation enables replication of the model across organizations and environments.”</p> |

Organizational Capital’s enhancing tools and business practices are widely discussed in the EFQM formal memories, reinforcing the “quality”-oriented traditional management systems frameworks. Within the Integrated Management System theme, the researcher has identified a detailed set of subthemes, supported by a wide range of evidence, as analyzed in the documents.

From the assessor's perspective, the strengths identified related to Organizational Capital through the thematic analysis in NVivo are presented in Table 13:

Table 13: Organizational Capital strengths analysis in assessment reports

| Themes                                     | Definition   |
|--|--|
| Information and data analysis              | It refers to the strengths identified in having data management systems and infrastructures (BI), dashboards, and management KPIs that enable monitoring the organization's operation and measuring its performance to generate new knowledge. |
| Digitalization management knowledge of and | It refers to initiatives to digitize the management of organizations through various tools, which are strengths, but all aim to achieve substantial improvements in functioning and  |

| Themes  | Definition   |
|---|--|
|   | internal efficiency, as well as in the way knowledge is made explicit, collected, and shared within the organization.  |
| <b>Risk Management</b>                        | It refers to risk management systems implemented in organizations as strengths that enable the structuring of risk identification and response measures, thereby enhancing operational effectiveness.  |
| <b>Knowledge management and dissemination</b> | It refers to organizations that have approaches and tools for managing, and especially disseminating, the knowledge they possess. Digital tools, process documentation... Both for the organization's employees and for its external stakeholders, for whom it establishes dissemination and communication tools.                        |
| <b>Processes, projects, and standards</b>     | It refers to highlighted aspects as strengths, linked to a solid process management framework based on a process map that identifies, documents, and develops these processes, offering a robust management framework that supports the proper functioning of the organization. It also refers to the structuring of project management. |
| <b>Integrated management system</b>           | It reinforces as a strong point the existence of integrated management systems supported by standardized external references that allow for robust management based on organizational capital, ensuring the quality of operations and the efficiency and effectiveness of management as well as quality.                                 |

And the opportunities for improvement in Organizational Capital thematic analysis through the assessment report data set are presented in Table 14:

Table 14: Organizational Capital opportunities for improvement analysis in assessment reports

| Themes                       | Definition   |
|------------------------------|--|
| <b>Innovation Management</b> | It refers to the opportunity to establish more structured innovation models and processes within organizations, from technology surveillance to the organization and prioritization of project efforts for the development of new products and services. |

| Themes   | Definition   |
|--|--|
| <b>Risk Management</b>                             | It refers to opportunities to deepen risk management by extending it to more comprehensive areas, including strategic, reputational, and external risks.   |
| <b>Change Management and Transformation</b>        | It refers to the need to better structure the change management process, including identifying stages, establishing monitoring mechanisms, and setting indicators to measure effectiveness.      |
| <b>Knowledge management</b>                        | Opportunities identified include further systematizing knowledge management, leveraging digital tools, structuring existing knowledge, and disseminating it.                                     |
| <b>Improvement in the management of indicators</b> | It refers to the management of the measurement element, indicator updates, strategic indicator selection, and their digitization, all aimed at improving their usefulness and effectiveness.     |
| <b>Process improvement and updating</b>            | The identified improvements mainly focused on enhancing management processes, including identifying and updating key processes, documentation, and measurement.                                  |
| <b>Sustainability</b>                              | It refers to opportunities for improvement identified to enhance the organization's sustainability policies and practices to a greater extent and in a more integrated manner with the strategy. |
| <b>Digital transformation</b>                      | It refers to the need to accelerate, complete, and extend organizations' digital transformation processes.   |

This section presents the findings related to Organizational Capital practices identified through the thematic analysis of EFQM formal memories and assessment reports. Organizational Capital refers to the explicit, codified, and systematized knowledge embedded in organizational structures, processes, management systems, and ways of working that support both operational performance and organizational transformation. The analysis revealed a strong and widespread presence of formalized organizational systems across the organizations studied. References to structured management

frameworks, documented processes, and integrated systems were recurrent across nearly all organizations, indicating that organizational capital constitutes a central pillar of management practice in EFQM-recognized organizations (for further details on the complete themes and subthemes identified in the thematic analysis, see Appendix C).

A first dominant pattern concerns process-based management and integrated management systems. Formal process mapping, process ownership, and systematic performance monitoring were extensively referenced in formal memories. These practices were frequently supported by integrated management systems aligned with international standards, particularly ISO-based quality, environmental, and health and safety frameworks. Assessment reports consistently identified these systems as strengths, highlighting their role in ensuring consistency, control, and operational reliability, reinforcing the exploitation (performance) side of ambidexterity.

Closely related to this, performance measurement, control, and risk management systems emerged as a second highly recurrent pattern. Organizations frequently reported using dashboards, key performance indicators, financial control mechanisms, and risk management frameworks. These practices were often described as embedded in governance routines and supported by regular internal and external audits. Assessors commonly acknowledged the maturity of these systems, while in some cases pointing to opportunities to further integrate risk management with strategic decision-making and transformation initiatives.

A third pattern relates to digitalization and information systems as enablers of organizational capital. References to ERPs, data management platforms, and digital tools supporting operational efficiency were widespread. Many organizations reported investments in digital infrastructure to automate processes and improve information availability. While these practices were predominantly associated with performance and exploitation, assessment reports also noted varying degrees of integration between digital systems and transformation-oriented initiatives.

The analysis also identified project management and continuous improvement structures as recurrent organizational capital practices. Formal project management

methodologies, project portfolios, and continuous improvement initiatives such as lean management were reported across a substantial number of organizations. These practices were often positioned at the intersection of performance optimization and incremental transformation.

In contrast, knowledge management systems explicitly aimed at organizational learning and renewal appeared less consistently. While references to documented procedures and repositories were common, fewer organizations described systematic mechanisms for capturing and reusing experiential knowledge beyond operational processes. Assessment reports occasionally highlighted this as an area for improvement, particularly regarding knowledge transfer across units and long-term organizational learning.

Overall, the findings indicate that organizational capital in EFQM-recognized organizations is characterized by a high level of formalization, standardization, and control, with a strong emphasis on systems that support performance/exploitation. More advanced practices aimed at leveraging organizational capital for transformation and long-term learning were present but unevenly developed across the sample of EFQM organizations analyzed.

#### 4.2.3 Relational Capital findings

The practices to enhance relational capital within excellent organizations identified through the thematic analysis in NVivo are presented in Table 15:

Table 15: Relational Capital factors identified in EFQM Memories

| Relational Capital factors  | Definition  | Representative quotes   |
|---|---|---|
| <b>Relational Capital: Thematic Analysis in EFQM Memories</b>     |   |   |
| <b>Alliances and collaborations with external entities (CR01)</b> | Refers to organizational management practices aimed at establishing alliances and collaborations with external entities that strengthen external relational | “Relationships among members of the organization and with external entities are fostered through learning and collaboration networks with stakeholders, including alliances |

| Relational Capital factors                                  | Definition  | Representative quotes  |
|---|---|--|
|   | capital and enable the incorporation of new knowledge and learning.   | <p>with professional networks such as REBIUN, OCLC, and Dialnet. These networks enable the exchange of experiences and promote innovation and creativity, contributing to the development of sustainable value-added services.”</p> <p>“The organization actively participates in collaboration and learning networks within the disability ecosystem. Strategic alliances have been established with national and international actors to generate synergies and position the organization as a benchmark in social and labor inclusion.”</p> |
| <b>Culture promoting collaborative relationships (CR02)</b> | Refers to cultural practices that foster and develop collaborative relationships within the organization.   | <p>“An Organizational Culture Model based on three pillars—people, collaboration, and agility—is implemented. This model fosters internal relationships grounded in trust and teamwork.”</p> <p>“The Organization values and promotes relationships among its employees and teams, fostering a collaborative and mutually supportive work environment. Open communication and the exchange of knowledge and experiences among organizational members are actively encouraged.”</p>   |
| <b>Inclusive and diverse environment (CR03)</b>             | Refers to management practices aimed at promoting diversity and inclusivity, largely linked to gender equality through equality plans and the inclusion of people with disabilities. It places less emphasis on psychological safety. | <p>“Diversity and inclusion are promoted as essential values, fostering a culture of respect and equity that is reflected in all interactions within the cooperative.”</p> <p>“The Organization has developed structured listening and participation mechanisms to promote diversity and inclusion. Social perception surveys are</p>  |

| Relational Capital factors                                     | Definition  | Representative quotes   |
|--|---|---|
|  |   | <p>conducted annually via email to different stakeholder groups, with results segmented by type of organization.”</p>   |
| <p><b>Tools for interpersonal knowledge sharing (CR04)</b></p> | <p>Refers to management approaches and tools that promote and encourage knowledge sharing among individuals and teams within the organization.</p>  | <p>“A Talent Transfer Model (TDT) is used to structure knowledge transfer among employees, supported by group-based learning programs.”</p> <p>“A participatory organizational culture is emphasized, where collaboration and the exchange of tacit knowledge among employees are promoted through regular meetings, multidisciplinary teams, and the use of digital tools such as Power BI and Teams.”</p>   |
| <p><b>Leadership fostering relationship quality (CR05)</b></p> | <p>Refers to how distributed and participative leadership can promote the development of relational capital, fostering a collaborative climate and mutual support among organizational members.</p> | <p>“Internal conflict resolution is managed through the leadership model and the “Growing Together” program, which fosters structured conversations between employees and managers, promoting transparency and continuous improvement.”</p> <p>“One of the main approaches is shared leadership and a decentralized management structure that empowers employees at all levels, fostering a collaborative and mutually supportive environment. This is reflected in how teams work together to share knowledge and resolve internal conflicts, with a strong emphasis on open communication and proactive problem-solving.”</p> |
| <p><b>Management mechanisms for</b></p>                        | <p>Refers to the mechanisms, systems, and forums established by</p>   | <p>“Regular meetings are held between leaders and work teams to ensure alignment with strategic</p>   |

| Relational Capital factors   | Definition   | Representative quotes   |
|--|--|---|
| <b>participation and alignment (CR06)</b>  | organizations to promote participation and alignment with strategy and objectives, from top management to operational levels   | objectives and organizational culture. This approach aims to strengthen employee motivation and improve communication across different areas and services.”<br><br>“The participatory management system, both at the executive committee level and within each area, enables the sharing of a common understanding of the organization’s status and objectives. A monthly summary of executive committee results is communicated to the entire organization.” |
| <b>Participation and co-creation in ideation and innovation processes (CR07)</b> | Refers to practices aimed at stimulating and encouraging participation, particularly in ideation processes, to promote an innovative culture. A wide range of initiatives and approaches are used, all sharing the common objective of fostering ideation and participation. | “Collaborative methodologies such as design thinking and focus groups are used to develop innovative solutions.”<br><br>“Internal and external collaborative networks complement these initiatives, promoting innovation and generating disruptive proposals to transform the organization.”  |

The strengths and opportunities for improvement related to Relational Capital, analyzed through the thematic analysis, are presented in Table 16 and Table 17:

Strengths:

Table 16: Relational Capital strengths analysis in EFQM assessment reports

| Themes   | Definition   |
|--|--|
| <b>Participatory and collaborative culture</b> | It refers to identified strengths in cultures that promote collaboration and people's participation, thereby enhancing relational capital. Related |

| Themes   | Definition   |
|--|--|
|  | to leadership models and cultural aspects of the organization that translate into formalized practices.  |
| <b>Diversity and inclusion</b>                                 | It refers to organizations' DEI policies in general, which are more focused on developing diversity than on inclusion. Some references along these lines to aspects of disability. It also refers to the legal obligations of equality plans and LGBT+ plans. Relevance of onboarding processes for inclusion.   |
| <b>Generating and sharing knowledge</b>                        | It refers to initiatives aimed at compiling knowledge and sharing it to also promote relational capital. Either through digital tools or through specific projects. It is very borderline with organizational capital practices.   |
| <b>Leadership Model</b>  | It refers to practices aimed at deploying leadership models that promote participation and collaboration. Organizations are looking for a role model extended throughout the organization that allows generating a culture oriented to this issue  |
| <b>External collaboration networks</b>                         | It refers to the strengths identified in organizations in terms of their external relational capital, achieved through collaboration networks with entities and organizations within their ecosystem, including partners, suppliers, customers, and associations, with an orientation towards proactive participation and learning.                                |
| <b>Active relationship with Stakeholders and the ecosystem</b> | It refers to the practices of organizations to involve and relate to their various stakeholders and other relevant agents within the ecosystem. EFQM Accounting, as one of the criteria, is a systematic management approach that aims to develop tools to collect their needs and expectations, establish a dialogue, and build an active relationship with them. |

Opportunities for improvement in “Relational Capital” thematic analysis of assessment reports:

Table 17: Relational Capital improvement opportunities analysis in EFQM assessment reports

| Themes  | Definition  |
|---|---|
| <b>Cross-Sectional and Vertical Collaboration</b>         | It refers to opportunities for improvement that strengthen communication and interdepartmental collaboration, thereby enhancing the flow of information and knowledge and reinforcing the culture of collaboration. It also facilitates the exchange of information and knowledge between different hierarchical levels. Break down silos.  |
| <b>Culture and values</b>                                 | It reinforces the importance of addressing cultural aspects by clearly defining the behaviors associated with values, measuring the gap between the desired and actual cultures, and identifying cultural elements that promote collaboration and active participation among people. Reinforce a culture of non-penalization and psychological safety.  |
| <b>Diversity and inclusion</b>                            | It refers to opportunities to strengthen DEI approaches, give them greater internal visibility, communicate them more explicitly, establish indicators to measure the impact of these policies, and reinforce the inclusion of underrepresented groups across management and governance areas within the organization.  |
| <b>Listening to employees and other stakeholders</b>      | It refers to opportunities to improve tools and approaches for listening to employees and other relevant stakeholders. Aspects of content to ask about, cadences of the surveys to make them more continuous, and the possibility of extending structured and formal listening to other stakeholders are discussed.   |
| <b>Change and transformation management</b>               | It refers to the need to strengthen relational capacities in change management, promote greater participation by people and other GIS in these initiatives, and implement systems that enable transformation processes.   |
| <b>Participation in ideation and innovation processes</b> | It refers to the opportunity to improve the processes of employee participation in ideation and innovation, either by formalizing the approaches and making them more structured, or by extending their use to the entire workforce and especially the basic and operational staff, or by establishing mechanisms of recognition or promotion that allow them to consolidate culturally. Culture of psychological safety. |

| Themes   | Definition  |
|--|---|
| <p><b>Promote collaboration with other organizations</b></p> | <p>It refers to opportunities for improvement identified in relation to the margins of organizations to strengthen their external collaboration networks as a means of strengthening their relational capital, opening up to new organizations, analyzing their map of relationships, and formally structuring relationships beyond the personal relationships of some of their managers...</p> |

This section presents the findings related to Relational Capital practices identified through the thematic analysis of EFQM formal memories and assessment reports. Relational Capital refers to the set of relationships that organizations establish internally among employees and externally with partners, customers, suppliers, and other stakeholders, as well as the mechanisms through which collaboration, knowledge exchange, and joint learning occur.

The analysis revealed broad recognition of relational capital as a relevant organizational resource, although its formalization and systematic management varied more significantly than those of human and organizational capital.

A first prominent pattern concerns internal collaboration and participation mechanisms. Many organizations reported initiatives aimed at fostering collaboration across teams and functions, including cross-functional projects, internal forums, and participation in improvement or innovation initiatives. These practices were often presented as mechanisms to facilitate engagement and knowledge sharing. Assessment reports often acknowledged these initiatives as strengths while noting differences in their depth and consistency across organisational units.

A second pattern relates to external relationships and partnerships. Strategic alliances, collaborations with suppliers, customers, and academic institutions, as well as participation in ecosystems or networks, were frequently referenced in formal EFQM memories. These relationships were often associated with innovation, benchmarking, and access to external knowledge. Assessment reports generally recognized the value of

these partnerships, while in some cases pointing to opportunities to better articulate their strategic objectives and outcomes.

A third pattern concerns knowledge sharing and learning through relational mechanisms. References to the exchange of tacit knowledge, communities of practice, and informal learning processes appeared across the dataset, although less systematically than formal training or process management practices. These mechanisms were often described in qualitative terms, and assessment reports occasionally highlighted the need to better structure and leverage relational learning processes.

The analysis also identified diversity, inclusion, and employee participation practices as components of relational capital. Initiatives aimed at promoting inclusive cultures, employee voice, and participation in decision-making were reported across a substantial number of organizations. While formal memories frequently presented these initiatives as strengths, assessment reports sometimes noted the need to extend participation mechanisms and ensure their effective integration into organizational decision processes.

In contrast, formal mechanisms for conflict resolution and structured relational governance were less frequently described. While trust and collaboration were commonly mentioned as cultural values, explicit references to structured approaches for managing internal tensions or leveraging diversity of perspectives were limited. Assessors occasionally identified this as an area for improvement.

Taken together, these findings suggest that relational capital practices in EFQM-recognized organizations are characterized by widespread recognition of the importance of collaboration and external relationships, combined with varying degrees of formalization and systematic management. While relational mechanisms are actively used to support engagement and innovation, their integration into coherent organizational systems remains uneven across organizations (see further details of the complete set of themes and subthemes identified in the thematic analysis in Appendix D).

#### 4.2.4 ANP prioritization results

As explained in the methodology chapter, we employed a multi-criteria decision-making methodology, such as ANP (Analytic Network Process), through an expert focus group to prioritize the 23 most relevant factors, grouped in the three second tier IC clusters (Human Capital, Organizational Capital and Relational Capital) identified in the thematic analysis of both formal EFQM memories and assessment reports, which have the greatest impact on creating ambidexterity capability in organizations.

After applying the method, following the steps outlined in the methodology chapter, we obtained the following aggregate and individual results, presented in Table 18 and Table 19 and RADAR charts that follow in Table 20.

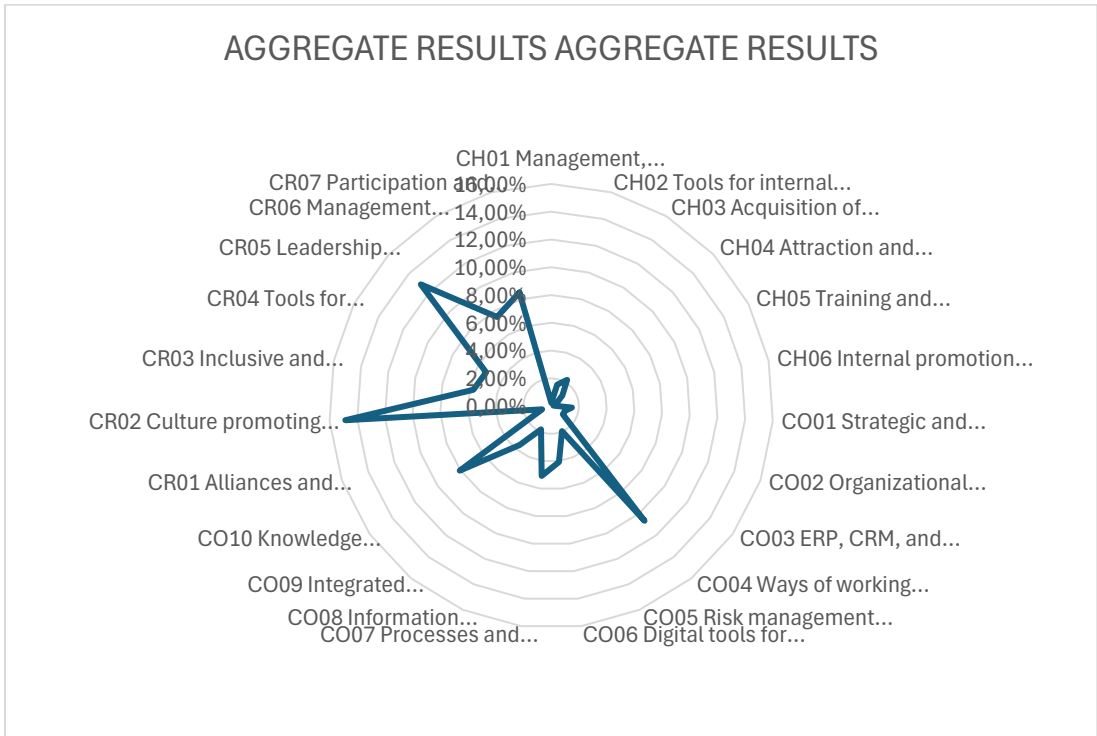
Table 18: ANP results. Total weight of each IC factor in %. Aggregate results and individual expert results

| CLUSTER - FACTOR CODING | IC FACTORS   | AGGREGATE RESULTS | EXPERT 1                 | EXPERT 2                   | EXPERT 3            | EXPERT 4                | EXPERT 5                      | EXPERT 6             | EXPERT 7                   | EXPERT 8              | EXPERT 9                  | EXPERT 10            | EXPERT 11                   | EXPERT 12                        |
|-------------------------|--|-------------------|--------------------------|----------------------------|---------------------|-------------------------|-------------------------------|----------------------|----------------------------|-----------------------|---------------------------|----------------------|-----------------------------|----------------------------------|
|                         |  | AGGREGATE RESULTS | Quality / >1000/Services | Innovation / <250/Services | HR / >1000/Industry | Quality / >1000/ Health | Quality / 250 - 1000 / Health | CEO / <250/ Services | Quality / >1000 / Services | CEO / <250 / Services | Marketing / <250/Services | CEO / >1000/Industry | General Mgr. / >1000/Health | Technical Mgr. / >1000/ Services |
| CH01                    | Management, assessment, and development of competencies and capabilities | 0,24%             | 0,33%                    | 0,03%                      | 0,25%               | 0,05%                   | 0,36%                         | 0,02%                | 0,51%                      | 0,99%                 | 0,00%                     | 0,26%                | 0,07%                       | 0,00%                            |
| CH02                    | Tools for internal knowledge sharing                                     | 1,60%             | 2,11%                    | 0,22%                      | 0,98%               | 0,58%                   | 2,55%                         | 1,11%                | 2,63%                      | 4,48%                 | 0,04%                     | 0,70%                | 3,76%                       | 0,10%                            |
| CH03                    | Acquisition of external knowledge  | 2,20%             | 3,56%                    | 0,30%                      | 2,53%               | 1,35%                   | 2,63%                         | 1,11%                | 3,19%                      | 3,18%                 | 0,18%                     | 2,45%                | 5,85%                       | 0,09%                            |
| CH04                    | Attraction and incorporation of new talent                               | 1,10%             | 2,42%                    | 0,13%                      | 1,10%               | 0,67%                   | 0,61%                         | 0,16%                | 1,78%                      | 0,82%                 | 0,01%                     | 1,73%                | 3,82%                       | 0,01%                            |
| CH05                    | Training and development plans   | 0,43%             | 0,48%                    | 0,15%                      | 0,62%               | 0,06%                   | 1,08%                         | 0,18%                | 0,60%                      | 1,49%                 | 0,01%                     | 0,18%                | 0,28%                       | 0,01%                            |
| CH06                    | Internal promotion and mobility  | 0,17%             | 0,13%                    | 0,06%                      | 0,30%               | 0,03%                   | 0,26%                         | 0,02%                | 0,30%                      | 0,70%                 | 0,00%                     | 0,20%                | 0,04%                       | 0,00%                            |
| CO01                    | Strategic and critical knowledge   | 1,50%             | 1,12%                    | 0,61%                      | 1,72%               | 5,82%                   | 2,17%                         | 0,84%                | 0,78%                      | 0,32%                 | 1,11%                     | 1,21%                | 2,24%                       | 0,05%                            |
| CO02                    | Organizational design  | 1,04%             | 1,36%                    | 0,64%                      | 1,70%               | 0,52%                   | 2,70%                         | 0,59%                | 1,04%                      | 2,00%                 | 0,13%                     | 0,91%                | 0,91%                       | 0,01%                            |
| CO03                    | ERP, CRM, and information systems  | 1,02%             | 0,93%                    | 0,15%                      | 1,90%               | 0,56%                   | 1,54%                         | 1,81%                | 0,28%                      | 0,36%                 | 0,29%                     | 3,41%                | 0,95%                       | 0,05%                            |
| CO04                    | Ways of working and explicit knowledge                                   | 10,65%            | 3,84%                    | 8,75%                      | 17,70%              | 5,22%                   | 19,53%                        | 6,85%                | 6,79%                      | 16,15%                | 16,63%                    | 12,42%               | 8,08%                       | 5,87%                            |
| CO05                    | Risk management and compliance   | 1,96%             | 7,92%                    | 0,20%                      | 1,06%               | 1,96%                   | 3,22%                         | 0,55%                | 0,30%                      | 0,12%                 | 0,25%                     | 3,25%                | 4,70%                       | 0,02%                            |
| CO06                    | Digital tools for knowledge management                                   | 4,06%             | 10,23%                   | 1,04%                      | 1,77%               | 4,15%                   | 5,51%                         | 3,56%                | 4,70%                      | 5,35%                 | 0,52%                     | 2,12%                | 9,68%                       | 0,13%                            |
| CO07                    | Processes and procedures   | 5,08%             | 7,61%                    | 1,44%                      | 8,74%               | 2,96%                   | 6,55%                         | 4,06%                | 2,33%                      | 5,49%                 | 7,59%                     | 6,97%                | 6,59%                       | 0,58%                            |
| CO08                    | Information security and knowledge protection                            | 1,83%             | 3,75%                    | 0,19%                      | 1,43%               | 2,52%                   | 3,89%                         | 0,64%                | 0,37%                      | 0,21%                 | 0,07%                     | 3,28%                | 5,59%                       | 0,01%                            |
| CO09                    | Integrated management system   | 3,61%             | 12,60%                   | 0,94%                      | 2,77%               | 6,38%                   | 3,28%                         | 2,85%                | 0,96%                      | 0,39%                 | 1,45%                     | 7,52%                | 4,14%                       | 0,07%                            |
| CO10                    | Knowledge transfer and dissemination                                     | 8,07%             | 11,24%                   | 6,05%                      | 9,98%               | 5,27%                   | 16,13%                        | 6,92%                | 5,89%                      | 9,29%                 | 3,00%                     | 12,67%               | 9,27%                       | 1,10%                            |
| CR01                    | Alliances and collaborations with external entities                      | 0,69%             | 0,21%                    | 0,27%                      | 0,96%               | 1,11%                   | 0,87%                         | 0,79%                | 0,76%                      | 0,85%                 | 0,79%                     | 0,33%                | 1,29%                       | 0,07%                            |
| CR02                    | Culture promoting collaborative relationships                            | 14,87%            | 8,61%                    | 23,91%                     | 13,83%              | 18,51%                  | 5,53%                         | 15,01%               | 21,52%                     | 18,91%                | 24,07%                    | 10,33%               | 7,80%                       | 10,36%                           |
| CR03                    | Inclusive and diverse environment  | 5,73%             | 2,24%                    | 6,84%                      | 8,09%               | 4,87%                   | 1,57%                         | 14,07%               | 6,62%                      | 3,46%                 | 7,24%                     | 7,97%                | 2,57%                       | 3,27%                            |
| CR04                    | Tools for interpersonal knowledge sharing                                | 5,28%             | 4,09%                    | 1,88%                      | 6,71%               | 7,45%                   | 6,37%                         | 3,22%                | 6,40%                      | 6,90%                 | 7,63%                     | 2,19%                | 9,14%                       | 1,36%                            |
| CR05                    | Leadership fostering relationship quality                                | 12,85%            | 4,15%                    | 22,58%                     | 9,98%               | 13,78%                  | 6,19%                         | 15,03%               | 9,45%                      | 10,14%                | 17,80%                    | 13,74%               | 3,00%                       | 28,31%                           |
| CR06                    | Management mechanisms for participation and alignment                    | 7,51%             | 5,54%                    | 5,69%                      | 4,64%               | 4,85%                   | 4,00%                         | 10,61%               | 10,13%                     | 3,83%                 | 4,15%                     | 2,93%                | 5,11%                       | 28,65%                           |
| CR07                    | Participation and co-creation in ideation and innovation processes       | 8,50%             | 5,55%                    | 17,94%                     | 1,23%               | 11,31%                  | 3,47%                         | 10,02%               | 12,67%                     | 4,58%                 | 7,03%                     | 3,23%                | 5,11%                       | 19,89%                           |

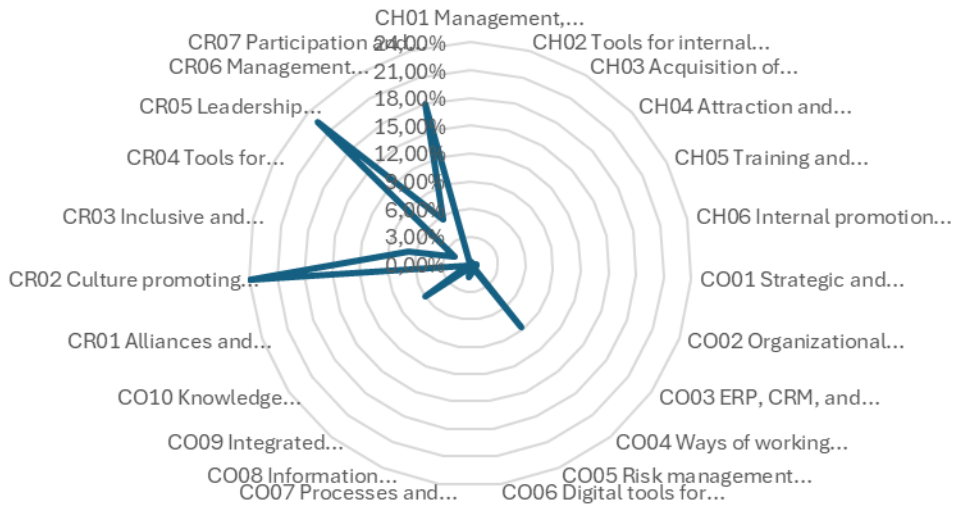
Table 19: ANP results. Accumulated weight of each of the three IC clusters: Human Capital, Organizational Capital and Relational Capital

| CLUSTER-FACTOR CODING  | IC FACTORS                                  | AGGREGATE RESULTS | EXPERT 1                 | EXPERT 2                   | EXPERT 3            | EXPERT 4                | EXPERT 5                      | EXPERT 6             | EXPERT 7                   | EXPERT 8              | EXPERT 9                    | EXPERT 10            | EXPERT 11                   | EXPERT 12                        |
|------------------------|---|-------------------|--------------------------|----------------------------|---------------------|-------------------------|-------------------------------|----------------------|----------------------------|-----------------------|-----------------------------|----------------------|-----------------------------|----------------------------------|
|                        |   |                   | Quality / >1000/Services | Innovation / <250/Services | HR / >1000/Industry | Quality / >1000/ Health | Quality / 250 - 1000 / Health | CEO / <250/ Services | Quality / >1000 / Services | CEO / <250 / Services | Marketing / <250 / Services | CEO / >1000/Industry | General Mgr. / >1000/Health | Technical Mgr. / >1000/ Services |
| HUMAN CAPITAL          | TOTAL WEIGHT HUMAN CAPITAL CLUSTER          | 5,75%             | 9,02%                    | 0,89%                      | 5,70%               | 2,75%                   | 7,49%                         | 2,59%                | 9,01%                      | 11,65%                | 0,25%                       | 5,52%                | 13,83%                      | 0,20%                            |
| ORGANIZATIONAL CAPITAL | TOTAL WEIGHT ORGANIZATIONAL CAPITAL CLUSTER | 38,82%            | 60,58%                   | 20,00%                     | 48,79%              | 35,36%                  | 64,52%                        | 28,67%               | 23,43%                     | 39,67%                | 31,04%                      | 53,76%               | 52,15%                      | 7,90%                            |
| RELATIONAL CAPITAL     | TOTAL WEIGHT RELATIONAL CAPITAL CLUSTER     | 55,43%            | 30,40%                   | 79,11%                     | 45,43%              | 61,89%                  | 28,00%                        | 68,74%               | 67,56%                     | 48,68%                | 68,71%                      | 40,72%               | 34,02%                      | 91,90%                           |
|                        |   | 100,00%           |                          |                            |                     |                         |                               |                      |                            |                       |                             |                      |                             |                                  |

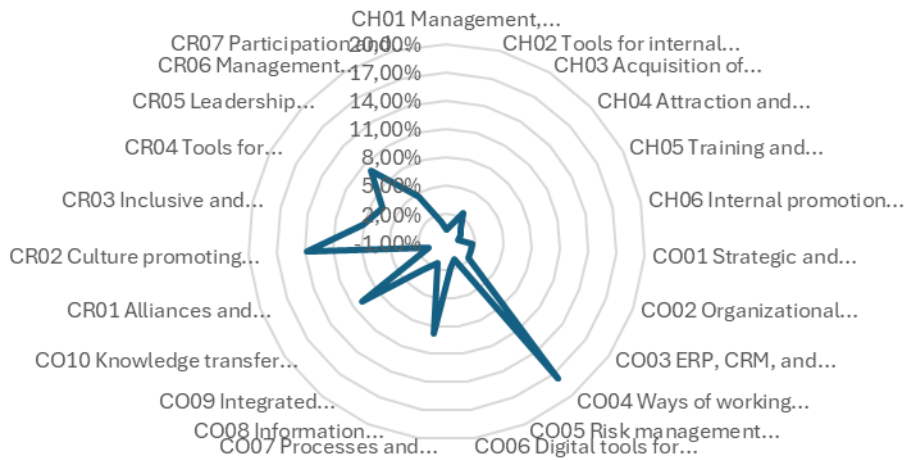
Table 20: Aggregate results per IC factor and results per expert



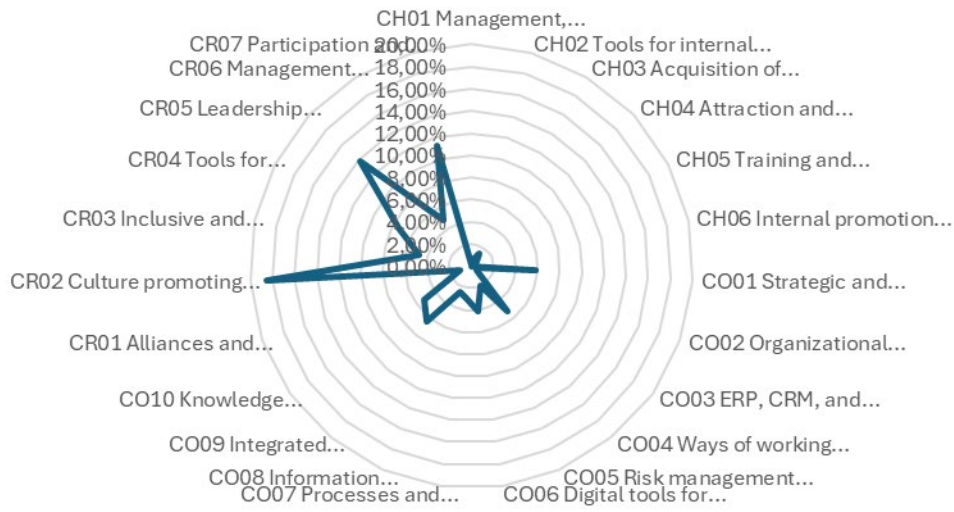
### EXPERT 2 Innovation/<250/Services



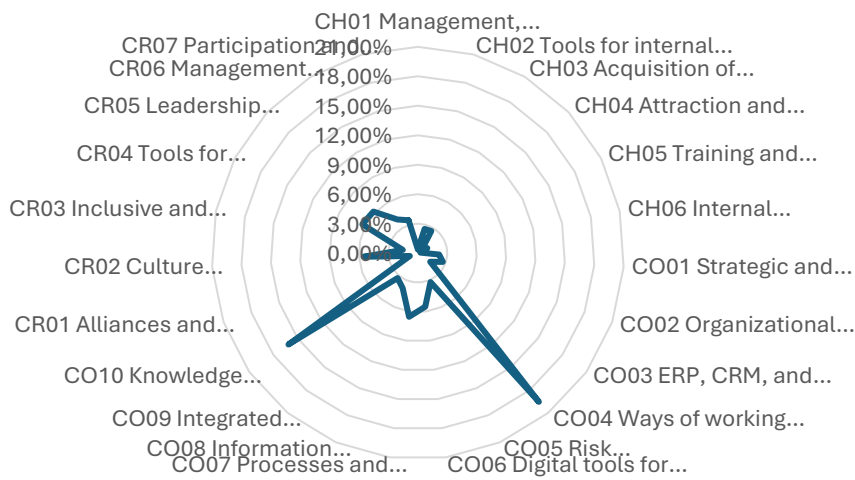
### EXPERTO 3 HR/>1000/Industry



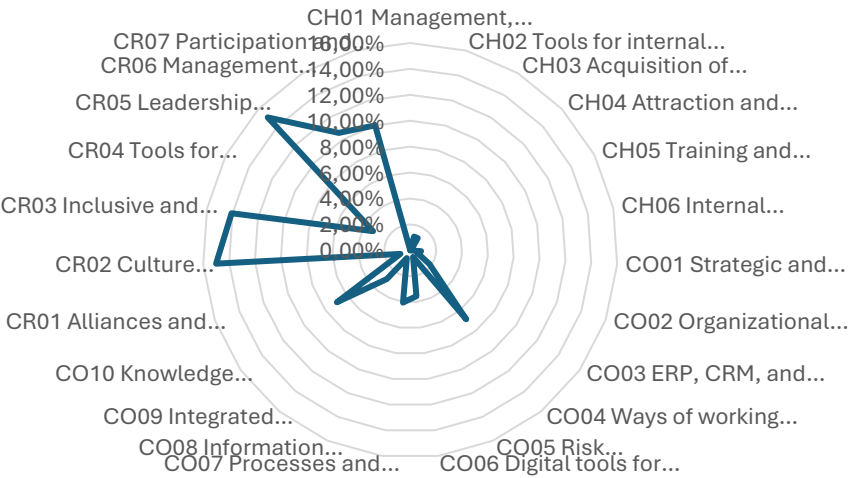
### EXPERT 4 Quality/>1000/ Health



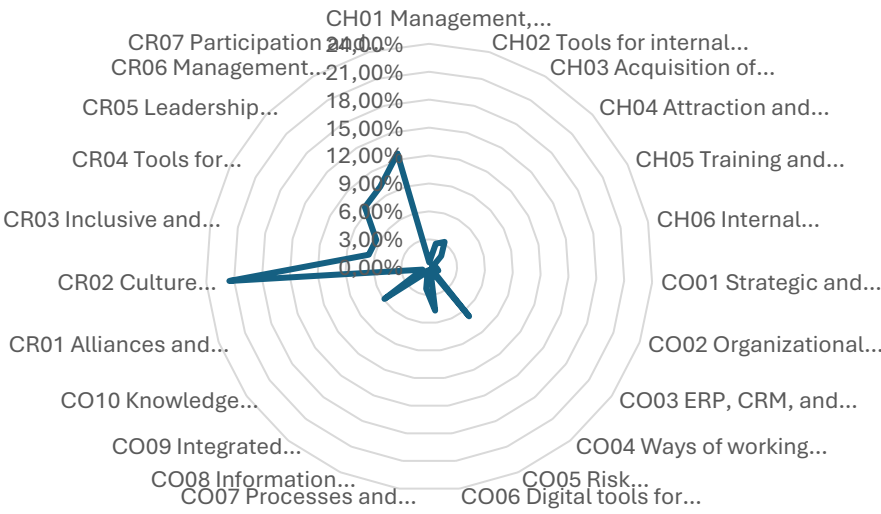
### EXPERT 5 Quality/250 -1000 / Health



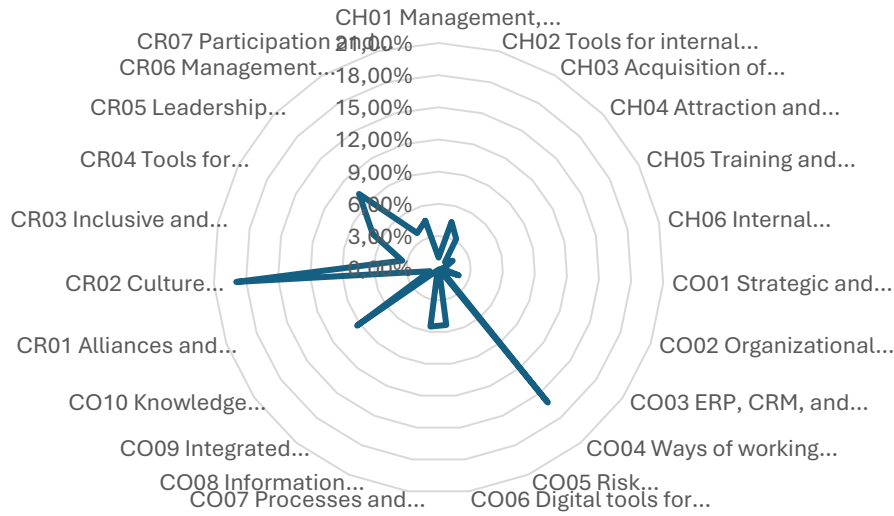
### EXPERT 6 CEO / <250/ Services



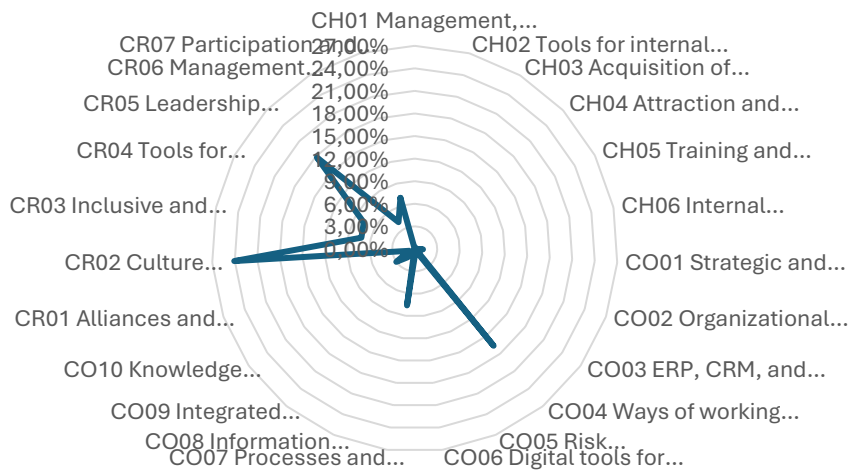
### EXPERT 7 Quality / >1000 / Services



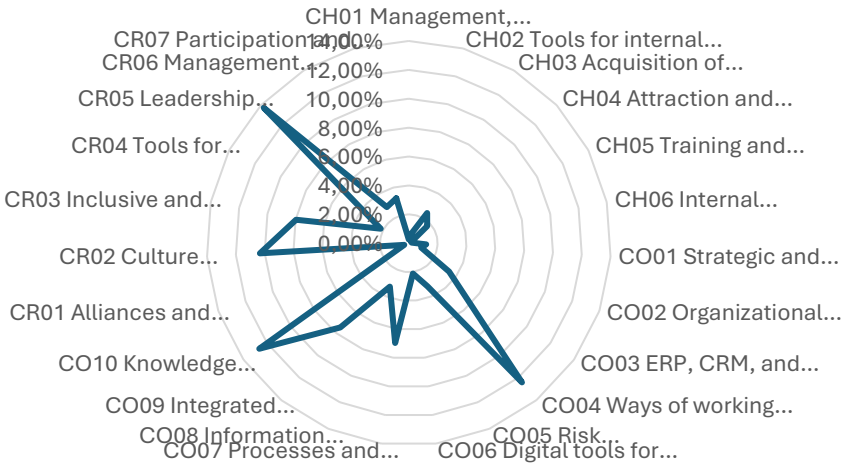
### EXPERT 8 CEO / <250 / Services



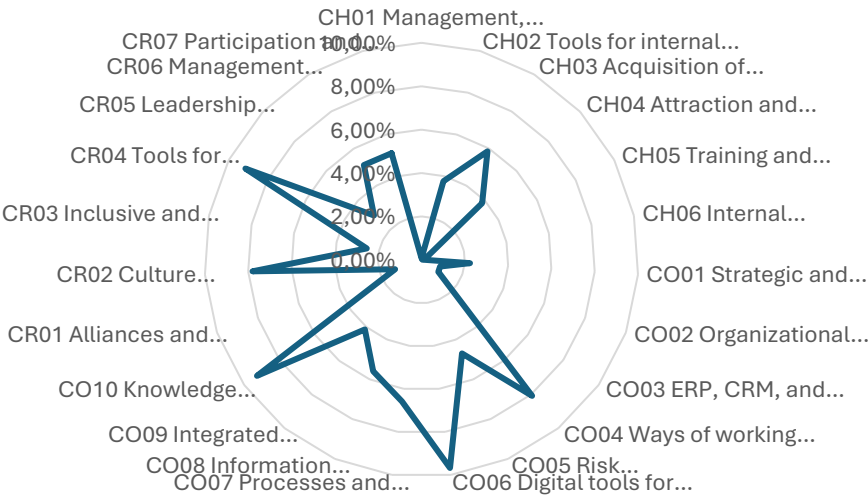
### EXPERT 9 Marketing / <250 / Services



### EXPERT 10 CEO / >1000/Industry



### EXPERT 11 General Mgr./>1000/Health



### EXPERT 12 Technical Mgr. / >1000/ Services

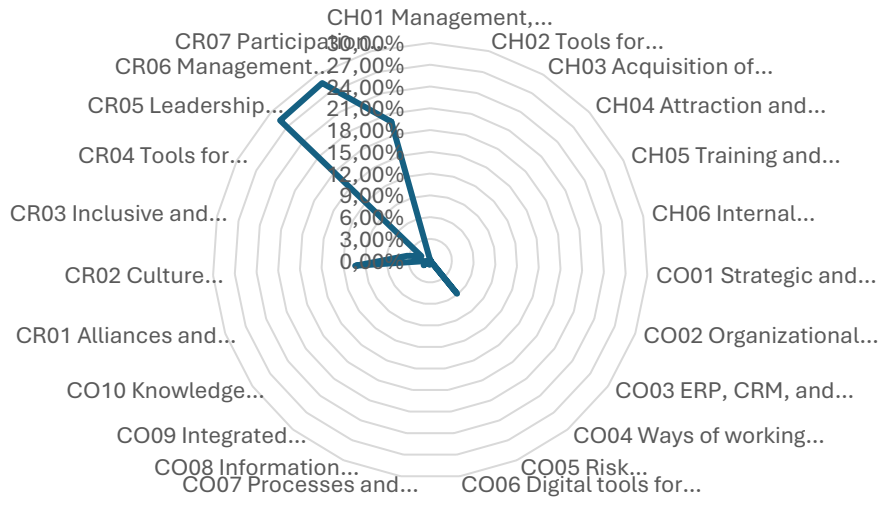


Table 21: ANP results. IC factors ordered by weight in aggregated results and by expert

| CLUSTER - FACTOR CODIN | IC FACTORS   | AGGREGATE RESULTS        | EXPERT 1                   | EXPERT 2            | EXPERT 3                 | EXPERT 4                      | EXPERT 5              | EXPERT 6                   | EXPERT 7              | EXPERT 8                  | EXPERT 9             | EXPERT 10                   | EXPERT 11                        | EXPERT 12 |
|------------------------|--|--------------------------|----------------------------|---------------------|--------------------------|-------------------------------|-----------------------|----------------------------|-----------------------|---------------------------|----------------------|-----------------------------|----------------------------------|-----------|
|                        |  | Quality / >1000/Services | Innovation / <250/Services | HR / >1000/Industry | Quality / >1000 / Health | Quality / 250 - 1000 / Health | CEO / <250 / Services | Quality / >1000 / Services | CEO / <250 / Services | Marketing / <250/Services | CEO / >1000/Industry | General Mgr. / >1000/Health | Technical Mgr. / >1000/ Services |           |
| CR02                   | Culture promoting collaborative relationships                            | 14,87%                   | 8,61%                      | 23,91%              | 13,83%                   | 18,51%                        | 5,53%                 | 15,01%                     | 21,52%                | 18,91%                    | 24,07%               | 10,33%                      | 7,80%                            | 10,36%    |
| CR05                   | Leadership fostering relationship quality                                | 12,85%                   | 4,15%                      | 22,58%              | 9,98%                    | 13,78%                        | 6,19%                 | 15,03%                     | 9,45%                 | 10,14%                    | 17,80%               | 13,74%                      | 3,00%                            | 28,31%    |
| CO04                   | Ways of working and explicit knowledge                                   | 10,65%                   | 3,84%                      | 8,75%               | 17,70%                   | 5,22%                         | 19,53%                | 6,85%                      | 6,79%                 | 16,15%                    | 16,63%               | 12,42%                      | 8,08%                            | 5,87%     |
| CR07                   | Participation and co-creation in ideation and innovation processes       | 8,50%                    | 5,55%                      | 17,94%              | 1,23%                    | 11,31%                        | 3,47%                 | 10,02%                     | 12,67%                | 4,58%                     | 7,03%                | 3,23%                       | 5,11%                            | 19,89%    |
| CO10                   | Knowledge transfer and dissemination                                     | 8,07%                    | 11,24%                     | 6,05%               | 9,98%                    | 5,27%                         | 16,13%                | 6,92%                      | 5,89%                 | 9,29%                     | 3,00%                | 12,67%                      | 9,27%                            | 1,10%     |
| CR06                   | Management mechanisms for participation and alignment                    | 7,51%                    | 5,54%                      | 5,69%               | 4,64%                    | 4,85%                         | 4,00%                 | 10,61%                     | 10,13%                | 3,83%                     | 4,15%                | 2,93%                       | 5,11%                            | 28,65%    |
| CR03                   | Inclusive and diverse environment  | 5,73%                    | 2,24%                      | 6,84%               | 8,09%                    | 4,87%                         | 1,57%                 | 14,07%                     | 6,62%                 | 3,46%                     | 7,24%                | 7,97%                       | 2,57%                            | 3,27%     |
| CR04                   | Tools for interpersonal knowledge sharing                                | 5,28%                    | 4,09%                      | 1,88%               | 6,71%                    | 7,45%                         | 6,37%                 | 3,22%                      | 6,40%                 | 6,90%                     | 7,63%                | 2,19%                       | 9,14%                            | 1,36%     |
| CO07                   | Processes and procedures   | 5,08%                    | 7,61%                      | 1,44%               | 8,74%                    | 2,96%                         | 6,55%                 | 4,06%                      | 2,33%                 | 5,49%                     | 7,59%                | 6,97%                       | 6,59%                            | 0,58%     |
| CO06                   | Digital tools for knowledge management                                   | 4,06%                    | 10,23%                     | 1,04%               | 1,77%                    | 4,15%                         | 5,51%                 | 3,56%                      | 4,70%                 | 5,35%                     | 0,52%                | 2,12%                       | 9,68%                            | 0,13%     |
| CO09                   | Integrated management system   | 3,61%                    | 12,60%                     | 0,94%               | 2,77%                    | 6,38%                         | 3,28%                 | 2,85%                      | 0,96%                 | 0,39%                     | 1,45%                | 7,52%                       | 4,14%                            | 0,07%     |
| CH03                   | Acquisition of external knowledge  | 2,20%                    | 3,56%                      | 0,30%               | 2,53%                    | 1,35%                         | 2,63%                 | 1,11%                      | 3,19%                 | 3,18%                     | 0,18%                | 2,45%                       | 5,85%                            | 0,09%     |
| CO05                   | Risk management and compliance   | 1,96%                    | 7,92%                      | 0,20%               | 1,06%                    | 1,96%                         | 3,22%                 | 0,55%                      | 0,30%                 | 0,12%                     | 0,25%                | 3,25%                       | 4,70%                            | 0,02%     |
| CO08                   | Information security and knowledge protection                            | 1,83%                    | 3,75%                      | 0,19%               | 1,43%                    | 2,52%                         | 3,89%                 | 0,64%                      | 0,21%                 | 0,07%                     | 0,07%                | 3,28%                       | 5,59%                            | 0,01%     |
| CH02                   | Tools for internal knowledge sharing                                     | 1,60%                    | 2,11%                      | 0,22%               | 0,98%                    | 0,58%                         | 2,55%                 | 1,11%                      | 2,63%                 | 4,48%                     | 0,04%                | 0,70%                       | 3,76%                            | 0,10%     |
| CO01                   | Strategic and critical knowledge   | 1,50%                    | 1,12%                      | 0,61%               | 1,72%                    | 5,82%                         | 2,17%                 | 0,84%                      | 0,78%                 | 0,32%                     | 1,11%                | 1,21%                       | 2,24%                            | 0,05%     |
| CH04                   | Attraction and incorporation of new talent                               | 1,10%                    | 2,42%                      | 0,13%               | 1,10%                    | 0,67%                         | 0,61%                 | 0,16%                      | 1,78%                 | 0,82%                     | 0,01%                | 1,73%                       | 3,82%                            | 0,01%     |
| CO02                   | Organizational design  | 1,04%                    | 1,36%                      | 0,64%               | 1,70%                    | 0,52%                         | 2,70%                 | 0,59%                      | 1,04%                 | 2,00%                     | 0,13%                | 0,91%                       | 0,91%                            | 0,01%     |
| CO03                   | ERP, CRM, and information systems  | 1,02%                    | 0,93%                      | 0,15%               | 1,90%                    | 0,56%                         | 1,54%                 | 1,81%                      | 0,28%                 | 0,36%                     | 0,29%                | 3,41%                       | 0,95%                            | 0,05%     |
| CR01                   | Alliances and collaborations with external entities                      | 0,69%                    | 0,21%                      | 0,27%               | 0,96%                    | 1,11%                         | 0,87%                 | 0,79%                      | 0,76%                 | 0,85%                     | 0,79%                | 0,33%                       | 1,29%                            | 0,07%     |
| CH05                   | Training and development plans   | 0,43%                    | 0,48%                      | 0,15%               | 0,62%                    | 0,06%                         | 1,08%                 | 0,18%                      | 0,60%                 | 1,49%                     | 0,01%                | 0,18%                       | 0,28%                            | 0,01%     |
| CH01                   | Management, assessment, and development of competencies and capabilities | 0,24%                    | 0,33%                      | 0,03%               | 0,25%                    | 0,05%                         | 0,36%                 | 0,02%                      | 0,51%                 | 0,99%                     | 0,00%                | 0,26%                       | 0,07%                            | 0,00%     |
| CH06                   | Internal promotion and mobility  | 0,17%                    | 0,13%                      | 0,06%               | 0,30%                    | 0,03%                         | 0,26%                 | 0,02%                      | 0,30%                 | 0,70%                     | 0,00%                | 0,20%                       | 0,04%                            | 0,00%     |

The results of the ANP show in Table 21 the relatively greater weight of the “Relational Capital” cluster’s factors, with the top two as “Culture promoting collaborative relationships” and “leadership fostering relationship quality,” and 6 of the “Relational Capital” factors within the top ten most relevant ones according to the expert view. We can also observe a notable homogeneity among the experts, except for experts 1 and 11, who exhibit different prioritization patterns.

The “Human Capital” cluster’s factors are the least weighted, with “acquisition of external knowledge” appearing first in the aggregated results, carrying a relative weight of just 2.20%.

The accumulated weight of factors across the three clusters reveals two distinct patterns among the experts: those who place greater emphasis on relational capital factors, and, on the other hand, a significant number who give greater weight to organizational capital factors. Human Capital factors have a fairly low overall weight, being extremely low for a number of experts.

Summarizing the ANP results, we found the following patterns:

- In the aggregate results, Relational Capital is prioritized above Organizational and Human Capital: six of the top ten factors belong to this cluster, and the two highest-ranked factors are RC factors.
- Leadership and culture (soft relational factors) dominate the prioritization. The two highest-ranked factors are: “Culture promoting collaborative relationships” and “leadership fostering relationships quality”. This indicates that “soft” factors, rather than individual skills and talent or systems, are prioritized as key enablers for ambidexterity.
- Human Capital factors are consistently underweighted. They receive by far the lowest accumulated weights, despite their prominence in organizational practices, management efforts, and resources.
- Organizational Capital occupies an intermediate, stabilizing position. This position OC as a necessary but not the dominant enabler.

- High convergence among experts with limited polarization. Most experts exhibit similar prioritization patterns. Two experts (expert 1 and expert 11) diverge more clearly in cluster emphasis.

#### 4.3 Findings related to RQ2: HR practices enabling IC and ambidexterity

In this section, we present the findings of the content and thematic analysis of High-Impact HR practices, which, as we have thoroughly analyzed in our literature review, create an adequate context to enhance learning capabilities and intellectual capital at the organizational level.

The most relevant themes identified through the thematic analysis in the 135 formal EFQM memories of Spanish excellent organizations are presented in Table 22:

Table 22: HRM practices analysis. Themes identified in EFQM Memories

| Themes   | Definition  | Representative quotes  |
|--|---|--|
| <b>Human Resource Management practices: Thematic analysis in EFQM Memories</b> |   |  |
| <b>Organizational well-being</b>   | It refers to management practices oriented to the emerging concept of organizational well-being. Almost all of them are evolutions of health programs that integrate the psychosocial perspective. In some cases, the concept of happiness appears.           | <p>“An innovative initiative is the implementation of a workplace happiness culture as a strategic pillar, integrating well-being, recognition, and personal development as key factors for employee engagement and productivity.”</p> <p>“The company has developed a well-being program that includes psychological support for employees and their families, stress management assistance, and medical services in some locations to ensure employee well-being.”</p> |
| <b>Recruitment and selection</b>   | It refers to the processes that organizations have in place to select new personnel. A lot of emphasis is placed on elements such as equal opportunities, merit, transparency, competency analysis, and alignment with the organization's values and culture. | <p>“Recruitment, hiring, and selection processes at XXXXX follow a structured approach based on fairness, equal opportunities, and transparency. Criteria such as gender balance, competencies, and requirements from funders and clients are applied. The organization uses recruitment sources such as public and private job boards, internal promotion, and</p>  |

| Themes   | Definition   | Representative quotes   |
|--|--|---|
|  |  | <p>employment agencies. Candidates are interviewed by the selection team and members of the management team, ensuring an objective evaluation aligned with strategic needs.”</p> <p>“In talent acquisition and selection, the University implements a recruitment system oriented toward excellence, diversity, and equal opportunities. Structured talent attraction processes are established to ensure the recruitment of highly qualified professionals aligned with the institution’s values.”</p> |
| <p><b>Role clarity and organizational design</b></p>                         | <p>It refers to people management practices that aim to describe the functions and competence requirements of positions and professional profiles. It is proposed as a tool to improve organizational design, role clarity, transparency, and talent planning.</p>       | <p>“All positions have updated profiles, reviewed every three years by the HR Directorate in line with strategic priorities and newly required competencies.”</p> <p>“The professional profiles manual is a key tool detailing competencies, functions, and specific responsibilities for each job category. This document serves as a fundamental guide to ensure employees clearly understand their roles within the organization.”</p>   |
| <p><b>Internal Communication</b></p>   | <p>References to internal communication practices to reinforce a sense of belonging, internal cohesion, and employee participation.</p>  | <p>“Internal communication is promoted through newsletters, intranet platforms, and regular meetings to strengthen a sense of belonging and organizational culture.”</p> <p>“Tools have been developed to improve communication and facilitate positive feedback within the organization.”</p>  |
| <p><b>Definition and development of the Leadership model and leaders</b></p> | <p>Leadership models are defined by organizations to develop their purpose and culture. Many references to leadership capacity development programs are according to these models. Differences exist between organizations that align with hierarchical criteria and</p> | <p>“Leadership capability development is based on a Leadership Model (LM), updated in 2022 to incorporate key corporate and managerial competencies, strengthening leadership capacity within the organization. This model defines leadership as the</p>  |

| Themes   | Definition   | Representative quotes   |
|--|--|---|
|  | those that advocate for more open leadership models.   | <p>management of resources, processes, and people.”</p> <p>“Talent management and leadership capability development are addressed holistically through the implementation of a 360° Leadership Model, aimed at strengthening the behaviors of executives and middle managers.”</p>  |
| <b>Digitalization of people management processes</b> | It refers to organizations' management practices that rely on technology to address People management processes. From general-purpose tools for the management of People processes, such as SFSF, to other tools to digitally solve certain processes. | <p>“The Organization implements strategies for talent attraction and retention, using tools such as SuccessFactors to manage recruitment processes more efficiently and in alignment with organizational needs.”</p> <p>“The digitalization of leadership evaluation through SuccessFactors is currently being implemented.”</p>  |
| <b>Diversity, Inclusion &amp; Equality</b>           | Very focused on the existence of the equality plan (legal requirement) and less on practices to promote an inclusive culture in the organization.  | <p>“XXXX stands out for initiatives such as the “Full Inclusion” program, which integrates people with disabilities into training placements. These actions reflect a strong commitment to diversity, inclusion, and equal opportunities within the institution.”</p> <p>“The Diversity and Inclusion strategy includes more than 120 work-life balance measures and programs such as “Women in Networking XXXX,” which promote equity and active employee participation. These initiatives contribute to social development and well-being.”</p> |
| <b>Employee Experience</b>                           | Practices that develop the concept of employee experience in the different phases of the employee life cycle.  | <p>“Employee experience management is structured from recruitment to the end of the employment relationship, including engagement, culture, and values surveys conducted by an external specialized company.”</p> <p>“The organization has implemented an Employee Interaction Map, structuring key initiatives across all stages of the employee lifecycle:</p>  |

| Themes                                     | Definition   | Representative quotes  |
|--|--|--|
|  |  | attraction, selection, onboarding, development, training, retention, and offboarding.”   |
| <b>Training and Development of People</b>  | The training and development process for individuals is typically structured around annual cycles, involving identifying needs, planning, executing, and evaluating the training's impact.   | “XXXX implements continuous training plans that respond to both organizational and individual needs, facilitating ongoing professional development.”<br><br>“Training is a strategic pillar within the organization, with plans designed for the continuous development of knowledge, skills, and capabilities. These plans are aligned with strategic objectives and are periodically reviewed through employee climate surveys and strategic meetings. Equal access to training is ensured, promoting a highly qualified and committed workforce.”   |
| <b>Performance and talent management</b>   | It refers to structured processes for managing and evaluating performance and talent. It refers to both individual and organizational objectives and to talent assessment tools using a competency model. In several cases, they begin with self-evaluation. | “Performance evaluation is conducted systematically through a self-assessment system and evaluation by supervisors, culminating in individual improvement plans. This practice is integrated with annual indicators to monitor progress and alignment with strategic objectives.”<br><br>Results-based performance evaluation is implemented through the “Growing Together” model, which promotes communication between employees and managers through development conversations. This model facilitates the identification of strengths and areas for improvement, ensuring employees’ professional growth. |
| <b>Human Resources Strategic Framework</b> | It refers to the practices of organizations to elevate the policies and processes of People to a strategic level, either by integrating them with each other, by elevating them to strategic plans, or by making these policies part of the                  | “XXXXXX develops its people management policy within the XXXX People Strategic Plan 2022–2025, structured around five strategic pillars: attracting talent, engaging and retaining employees, managing   |

| Themes   | Definition  | Representative quotes   |
|--|---|---|
|  | <p>organization's strategy. They expressly elevate practices to a strategic role.</p>   | <p>talent, strengthening leadership capacity, and evolving ways of working. Within the Phoenix Plan, the company has established the strategic line “Strengthening employee engagement,” deploying multiple initiatives such as the People Project and the Listening Journey.”</p> <p>“XXXX structures its people management within a strategic model aligned with its organizational purpose, prioritizing talent attraction, development, and retention. This is reviewed monthly in the executive committee through performance dashboards and annually as a key part of its strategy. The company has defined key processes in its HR Management Plan, including workforce planning, leadership management, recruitment and hiring, employee satisfaction, labor management, and occupational risk prevention.”</p> |
| <p><b>Climate measurement and engagement</b></p> | <p>It refers to structured listening tools, such as surveys (usually conducted on an annual cycle), or market standards, including GPTW, or ad hoc designs. The objective of these is to identify areas for improvement</p>                       | <p>“XXXXX has been conducting anonymous employee climate and internal satisfaction surveys for over nine years and has been recognized as one of the best companies to work for in Spain by the consulting firm Great Place To Work.”</p> <p>“Employee climate surveys include questions related to inclusion, participation, and employees’ perceptions of the work environment.”</p>  |
| <p><b>Recognition</b></p>                        | <p>It refers to initiatives, management practices, and policies that promote formal and informal recognition in different formats. It reinforces celebration, behaviors, and initiatives that promote the values or purpose of organizations.</p> | <p>“The organization has a Recognition Plan that rewards outstanding performance and innovation. Leaders act as internal trainers, and ceremonies and events are held to recognize employees’ contributions.”</p> <p>“Regarding recognition policies, Asepeyo has developed initiatives</p>   |

| Themes | Definition | Representative quotes   |
|--------|------------|---|
|        |            | such as “Asepeyo Thanks,” a recognition program based on performance evaluation and employee contributions. This system aims to reinforce motivation and engagement through both public and private recognition of well-done work.” |

Relative to the strengths and areas of improvement relating to HR practices in the analyzed organizations, we present the thematic analysis results in Table 23 and Table 24:

### Strengths

Table 23: HRM practices strengths analysis in assessment reports

| Themes  | Definition  |
|---|---|
| <b>Organizational well-being</b>                  | It refers to initiatives that promote organisational well-being and health, extending beyond the legal aspects contemplated in risk prevention and pursuing a broader objective.  |
| <b>Compensation and Benefits</b>                  | It refers to good practices identified in terms of remuneration, compensation, and benefits, especially practices to improve collective bargaining agreements or that establish variable remuneration linked to relevant objective criteria, such as target systems         |
| <b>Company Culture and Values in HR processes</b> | Reinforce the approaches that promote the development of the organization's values and their associated behaviors, and their deployment through the People management processes, thereby reinforcing the organization's culture.  |
| <b>Active Listening and Dialogue with People</b>  | It includes organizations' practices for active listening and for collecting employees' voices, such as surveys, pulse checks, focus groups, and dialogue spaces with management. Aimed at collecting needs and expectations, and being able to activate improvement plans. |
| <b>Training and capacity building</b>             | It reinforces the strong point that organizations dedicate resources and structured approaches to the continuous training and capacity development of their people.   |

| Themes  | Definition  |
|---|---|
| <b>People Management Measurement</b>                | It refers to practices aimed at developing dashboards that allow for measuring and evaluating, over time, the management of People with different perceptions and performance indicators relevant to accountability and for the continuous improvement of the function.   |
| <b>Leadership Model and Its Development</b>         | It is often considered a strong point in developing leadership models and in their evolution to shape the desired culture within the organization. Development of specific programs for their development and models oriented to the structure of managers, but also in many cases, promoting informal leadership                                   |
| <b>Comprehensive Talent Management Model</b>        | It refers to the strengths of organizations that have comprehensive approaches to People management, whether for the evolution and modernization of the function, for having developed complete People processes, or for having strategic People plans or policies in this area. It therefore refers to a comprehensive model of People Management. |
| <b>Promote employee participation in management</b> | It refers to the strengths of organizations that promote active participation by people in innovation, ideation, strategy development, and new ways of working, all of which enhance a culture of participation and collaboration.  |
| <b>Recognition</b>                                  | It refers to the strengths of organizations in managing recognition, particularly social recognition. It also has an indirect link with compensation, although in this area the culture of recognition is further reinforced through initiatives such as awards...  |

### Areas of improvement

Table 24: HRM opportunities for improvement thematic analysis in assessment reports

| Themes                                       | Definition  |
|--|---|
| <b>Organizational well-being</b>             | It refers to the need to integrate aspects of organizational well-being into People policies amid changes in the work environment.  |
| <b>Diversity &amp; Inclusion</b>             | It refers to improvements identified to strengthen diversity and inclusion policies, including reinforcing the representation of different groups within the company, promoting equal opportunities, and incorporating diversity into the organization through participation. |
| <b>Structuring and extending Recognition</b> | It refers to opportunities for improvement identified in how to better structure recognition, establish more explicit policies, reinforce them, and   |

| Themes  |                | Definition  |
|---|----------------|---|
|   |                | communicate them with greater transparency so that they penetrate more deeply into the culture.   |
| <b>Training and empowerment of people</b>                     | <b>and of</b>  | It refers to opportunities to strengthen the approaches to training, development, and People. Either through planning, strengthening impact, developing certain groups of professionals...  |
| <b>Change and transformation management</b>                   | <b>and</b>     | Opportunities for improvement linked to structuring change and transformation management processes in their relationship with People management. Anticipating possible risks of resistance, improving communication, accompaniment...   |
| <b>Identification and development of internal talent</b>      | <b>and of</b>  | Refers to the identified opportunity to improve talent identification processes through talent mapping and objective performance evaluation systems that enable clear, reliable identification of individuals' talent and potential to address future strategic challenges.   |
| <b>Improve Listening and Dialogue with Employees</b>          | <b>with</b>    | It refers to improvements identified in the processes of listening to employees' needs and expectations through formal mechanisms, such as surveys or pulse surveys. There are many references to improvements in participation, revising the cadences of "traditional" surveys to make them more continuous, improving segmentation, and reviewing the questions to focus them better... |
| <b>Improve Performance Management</b>                         |                | It refers to opportunities for improvement identified in relation to the performance management process, from its initial start-up and formalization, where it does not exist, to its consolidation, where it is incipient or in need of improvement. A significant impact on the relevance of feedback and development conversations, as well as their simplification.                   |
| <b>Improve and Extend People Management and its Processes</b> |                | It refers to recommendations for extending people management policies and processes beyond their current implementation, typically for managerial, supervisory, or indirect personnel. It appears, particularly in relation to training processes and those of performance evaluation and management.   |
| <b>Reinforce Culture and Desired Values</b>                   |                | It refers to opportunities for improvement to better align people management processes with the desired culture and values, clearly define values and their associated behaviors, work on understanding the gap between the current culture and the desired culture.  |
| <b>Reinforce and consolidate Leadership model</b>             | <b>and the</b> | It refers to the need to strengthen leadership, both in defining the leadership model for each organization and in consolidating it once defined. There are numerous references to the need to measure their effectiveness and develop leadership skills among the organization's leaders.  |

The thematic analysis revealed a consistent set of HR practices that create the organizational context within which human, organizational, and relational capital can be developed. These practices were primarily concentrated on leadership, human capital capability development, performance management, and employee involvement mechanisms.

The first dominant pattern concerns the development of leadership capability. References to structured leadership development programs were recurrent across the organizations analyzed. These programs typically targeted different managerial levels and were frequently linked to broader organizational transformation initiatives. Leadership development was commonly framed as a strategic priority, underscoring its role as an enabler of both operational performance and change initiatives.

A second pattern relates to the development of capabilities and learning systems. HR practices supporting training, continuous learning, and skills development were widely represented across the dataset. These practices included formal training plans, digital learning platforms, and internal training resources. The recurrence of these practices indicates a strong emphasis on building and maintaining human and organizational capabilities, although the depth and strategic orientation of learning systems varied across organizations.

A third pattern concerns performance management and recognition practices. Results and competency-based performance evaluation systems were widely reported, often complemented by recognition and reward mechanisms. These practices were generally described as aligned with organizational objectives, reinforcing the link between individual performance and organizational results. However, assessment reports frequently noted opportunities to better integrate performance management with longer-term career development and learning objectives.

Employee involvement, participation, and inclusion practices constituted a fourth pattern. Initiatives aimed at promoting employee participation, diversity, and inclusion were present across a significant number of organizations, although with varying levels of formalization. These practices included participation in improvement initiatives, innovation activities, and internal communication mechanisms. While frequently

identified as strengths in formal memories, assessors often highlighted them as opportunities for improvement, the need to deepen employee engagement, and the need to broaden participation beyond selected groups.

Internal mobility, polyvalence, and career development practices were identified as less frequent but consistently present across organizations. These practices were typically described as mechanisms to enhance flexibility, knowledge transfer, and capability development. Their lower recurrence suggests that while recognized as valuable, they are not yet systematically embedded across all organizations.

The assessment reports provided additional insights into the effectiveness of these HR practices. Strengths were commonly identified in relation to the existence of structured HR systems and alignment with organizational objectives. At the same time, assessors frequently highlighted areas for improvement, including integrating HR practices with transformation initiatives, measuring HR impact, extending HR practices to more operational employees, and developing more agile, adaptive people management approaches.

Overall, the findings indicate that high-impact HR practices in EFQM-recognized organizations are characterized by strong foundations in leadership development, training, and performance management, combined with more variable implementation of practices that explicitly support adaptability, employee participation, and ambidextrous capabilities (for further details of the complete list of themes and subthemes identified in the thematic analysis, see Appendix E).

#### 4.4 Findings for RQ3: How organisations implement ambidexterity

In this section, we cover the findings related to our 3rd RQ formulated as: How do EFQM-recognized organizations implement and attempt to consolidate ambidexterity as an organizational capability in practice, particularly through the interplay between formal systems and relational conditions?

”

This section is grounded in the content and thematic analysis of EFQM Criterion 5, “Managing Performance and Transformation.” Due to the depth of the content, we first analyzed exploitation (performance) practices in the EFQM dataset and then transformation (exploration) practices in the same dataset.

The main themes are presented in Table 25 and in Table 26:

Performance (exploitation) practices:

Table 25: Performance (exploitation) business practices analysis in EFQM Memories

| Themes   | Definition  | Representative quotes   |
|--|---|---|
| <b>Performance (exploitation) business practices: Thematic analysis in EFQM Memories</b> |   |   |
| <b>Analytics and data management</b>   | References to the relevance of data management and analysis for decision-making and ensuring operational efficiency. References to digitalization and the greater concern for data quality appear strongly.   | <p>“The organization emphasizes the importance of data analysis for continuous improvement. Regular monitoring of key indicators is conducted to assess both operational performance and progress toward strategic objectives. This approach enables continuous alignment between daily activities and long-term goals.”</p> <p>“XXXX manages data, information, and knowledge—critical elements for informed decision-making and effective organizational management. This focus on information management supports both daily operations and long-term strategic planning.”</p> |
| <b>Management and financial control</b>  | It refers to the management practices implemented in EFQM organizations for economic and financial control, along with the tools used for this: budgeting, financial and cash management, the use of ERP tools and information systems for financial and economic control, cost analysis, and monitoring deviations. It reinforces the importance of economic control to ensure operational efficiency. | <p>“Resource and critical asset management is optimized through budget planning and internal control, ensuring efficient administration.”</p> <p>“A management control system has been implemented to collect, analyze, and publish data through dashboards, providing a comprehensive view of organizational performance. In addition, tools have been developed to enable real-time data collection, improving risk management and decision-making.”</p>  |

| Themes  | Definition  | Representative quotes   |
|---|---|---|
| <b>Deploying Targets</b>                        | Management practices that allow the strategy to be deployed in an annual cycle, with associated plans and subsequent monitoring carried out to manage deviations and ensure compliance.   | <p>“Performance management is based on the establishment of objectives, data analysis, and improvement planning aligned with the Quality Policy and the Strategic Plan.”</p> <p>“It is noted that the Executive Committee conducts quarterly reviews of key hospital objectives, assessing progress across each strategic line and adjusting the strategy annually based on results and relevant internal or external changes.”</p>   |
| <b>Digitalization and automation efficiency</b> | Digitalization is focused on achieving operational efficiency. It mentions different types of tools. In some cases, the robotization or automation of processes stands out more for its direct focus on efficiency. In other cases, it refers to digitization of information systems. | <p>“The implementation of automated management systems has reduced response times and improved the taxpayer experience, positioning XXXX as a leading organization in digitalization within the public sector”.</p> <p>“The organization is implementing the SGP system, integrating technological advances such as artificial intelligence, robotics, and process digitalization, with the aim of improving efficiency in interactions with members, employees, and society at large.”</p>                               |
| <b>Organizational structure</b>                 | Organisational structure as a mechanism to improve functioning by the distribution of functions, assignment of tasks, etc.  | <p>“The organizational structure is composed of hierarchical-territorial and functional-technical lines, enabling a clear division of responsibilities to optimize performance. Additionally, the hospital structure facilitates the provision of advanced diagnostic and treatment services, strengthening continuity of care.”</p> <p>“Performance and risk management are based on an organizational structure and management system that align purpose, strategy, and results, promoting continuous improvement.”</p> |

| Themes   | Definition  | Representative quotes   |
|--|---|---|
| <p><b>Process and process management</b></p>     | <p>It refers to management practices that govern operations through standards or processes, often documented and structured using the process map tool. References more oriented to process management appear, mentioning the owners of the processes, their measurement, and the focus on continuous improvement.</p>  | <p>“Process standardization, based on ISO standards, ensures quality and sustainability across all operations. This approach enables XXX to meet stakeholder expectations and respond to market demands.”</p> <p>“A consolidated process management system is highlighted, including strategic, core, clinical support, and administrative support processes. These are regularly evaluated through indicators, audits, and benchmarking to ensure operational efficiency and continuous improvement.”</p>  |
| <p><b>Asset Maintenance &amp; Management</b></p> | <p>Management practice aimed at ensuring the correct operation of assets through preventive and corrective maintenance. In some cases, it incorporates predictive maintenance. It ensures operational efficiency by leveraging and effectively managing the organization's assets. Operational and economic approach.</p>   | <p>“In asset and resource management, the company has implemented preventive and corrective maintenance systems for its facilities, along with a renewal plan to modernize equipment.”</p> <p>“Asset and resource management is oriented toward sustainability and efficiency, including preventive maintenance, vehicle lifecycle optimization, and prioritization of local suppliers.”</p>  |
| <p><b>Integrated Management System</b></p>       | <p>It refers to extended management practices in excellent EFQM organizations, integrated with quality, environmental, health, and safety systems... based on ISO standards and closely linked to the management of the processes that underpin them. They reflect the organisational know-how through the processes and legal and referential requirements established by management standards. They are the backbone of operational management. Importance of the audit verification aspect</p> | <p>“XXX uses the Integrated Quality, Environment, and Energy Management System (SIGCMAGE) to structure and manage 115 key processes, classified into strategic, operational, clinical support, and non-clinical support processes. This approach ensures a high level of alignment between strategy and operations.”</p> <p>“From its inception, XXXX has prioritized externally accredited quality management, beginning with the first ISO 9001 certification in Spain for a full hospital. This commitment has evolved into an Integrated Management System covering quality, environment, risk prevention, and energy efficiency, with 14 external accreditations.”</p> |

| Themes                         | Definition   | Representative quotes   |
|--------------------------------|--|---|
| <b>Risk Management Systems</b> | It refers to the widespread management practices in EFQM organizations that involve anticipatory risk management to ensure operational continuity. Many of them are based on standards such as COSO or ISO 3100. The link between business continuity management and crisis management approaches also becomes apparent. | <p>“XXXX uses a risk management model focused on operational stability. This model includes tools such as a Crisis Management Manual and an information security management system (ISO 27001 certified). It also incorporates climate-related risk analysis in line with TCFD recommendations to ensure organizational resilience.”</p> <p>“XXXX applies a comprehensive approach that includes continuous improvement of operational and business processes, supported by an Integrated Risk Management System aligned with best practices such as COSO ERM and ISO 31000.”</p> |

### Transformation (exploration) practices

Table 26: Transformation (exploration) business practices analysis in EFQM Memories

| Themes   | Definition   | Representative quotes  |
|--|--|--|
| <b>Transformation (Exploration) business practices: Thematic analysis in EFQM Memories</b> |  |  |
| <b>Open culture promoting change and agility</b>   | References to aspects of culture, leadership, and values that enable the organization to simultaneously function and transform. Mention also of change management. | <p>“The organization also focuses its efforts on change management and innovation, fostering a culture that integrates continuous improvement and rapid adaptation to new circumstances or demands, using technology and innovation as key pillars for this purpose.”</p> <p>“The organization aims to be agile, innovative, and future-oriented, prepared to face challenges and seize opportunities in a dynamic and constantly evolving environment.”</p> |
| <b>Knowledge management</b>  | It refers to the practices of organizations that explicitly manage   | “Knowledge transfer is prioritized through the development of internal capabilities and collaboration with   |

| Themes   | Definition  | Representative quotes   |
|--|---|---|
|  | <p>their knowledge to reinforce learning processes.</p>   | <p>external entities, creating an ecosystem of continuous learning.”</p> <p>“The organization promotes knowledge management through learning systems and best practices, consolidating a culture of continuous improvement.”</p>  |
| <p><b>Innovation</b></p>                           | <p>It refers to initiatives to systematically promote innovation in organizations. R+D+i structures appear as mechanisms for its promotion, as well as open innovation and ideation infrastructures. There are no references to scaling innovation.</p> | <p>“Innovation is fostered through the Annual Innovation Plan, developed by the Innovation Unit within the Strategic Planning Department, and is linked to operational planning.”</p> <p>“The promotion of innovation and technology is reflected in the execution of R&amp;D&amp;I projects across various strategic areas, including biotechnology, circular economy, and renewable energy.”</p>  |
| <p><b>Strategic Process and Strategic Plan</b></p> | <p>It refers to strategic planning as a tool for promoting and guiding transformation and exploration. It provides the guidance that enables the possibility of initiating change.</p>  | <p>“Transformation is carried out through continuous monitoring of the strategic plan, which is reviewed and adapted in line with new sector trends.”</p> <p>“Organizational transformation is implemented through the deployment of a Strategic Plan (SP) 2021–2025 aimed at consolidating institutional sustainability and addressing future challenges such as workforce shortages, demographic change, climate crisis, and the adoption of technologies such as artificial intelligence.”</p> |
| <p><b>Sustainability</b></p>                       | <p>It refers to initiatives to strengthen sustainability, especially environmental, but also social, as a mechanism for innovation and transformation. References to the SDGs.</p>  | <p>“Innovation efforts include initiatives such as the FCH2RAIL project to develop a hybrid electric/hydrogen train, as well as the promotion of renewable energy sources such as solar photovoltaic energy.”</p> <p>“The organization seeks to evolve traditional models toward more innovative and environmentally sustainable approaches, aligning with</p>  |

| Themes   | Definition  | Representative quotes   |
|--|---|---|
|  |   | environmental regulations and promoting the circular economy.”  |
| <b>Organizational Model Transformation</b>       | It refers to the role of organizational design and change in driving transformation and creating more agile organizations.  | <p>“The implementation of transformation projects has been accelerated, establishing six organizational change objectives for the coming years. Among them, the evolution toward a dual operating model combining functional areas and process-based management stands out, aiming to increase agility and efficiency.”</p> <p>“Colegio XXXXX highlights the creation of flexible organizational structures that enable efficient management of current operations while fostering innovation for the future.”</p>  |
| <b>Digital transformation and digitalization</b> | Technology as a driver of transformation. Strategically focused or developed through the incorporation of information technologies, architectures, and digital systems, digitalization is focused as a lever for accelerating transformation. | <p>“One of the most notable advancements is the implementation of a pioneering Industry 4.0 ecosystem within its region, including smart, automated, and secure factory initiatives, as well as projects in cybersecurity, virtual reality, augmented reality, digital twins, and computer vision.”</p> <p>“Another relevant aspect is the comprehensive management of digital transformation, structured around 24 initiatives in areas such as cybersecurity, data, productivity, collaboration, and processes. The organization supports users in adopting new tools and monitors progress through Teams-based working groups and corporate intranet communities.”</p> |

The assessors in the second data set (assessment reports of the 135, 500+ EFQM organizations) were oriented to address strengths and opportunities for improvement in the complete EFQM criterion 5 “Managing Performance and Transformation”. In this case, the thematic analysis of the ambidexterity phenomenon, managing performance and transformation, has been analyzed jointly with the following results presented in Table 27:

Table 27: Managing performance (exploitation) and transformation (exploration) strengths and opportunities for improvement analysis in EFQM assessment reports

| Themes  | Definition   |
|---|--|
| <b><i>Opportunities for improvement</i></b>                           |  |
| <b>Assets, Maintenance, and Obsolescence of Equipment and Systems</b> | Predictive maintenance refers to enhancing asset management, extending asset lifecycles, and, above all, incorporating technology to improve asset and maintenance management.   |
| <b>Innovation Management</b>  | It refers to identifying opportunities for improvement to reinforce innovative approaches, making them more systematic and extending them to the entire organization, or through other initiatives. It is also interesting that it is more integrated with transformation processes.   |
| <b>Transformation Management</b>                                      | Change management. It refers to identified opportunities for improvement related to the structuring of transformation management, to make it more systematic, to standardize it through ad hoc processes, to make the needs for change more explicit, and to strengthen the link with the strategy.                          |
| <b>Comprehensive and global risk management</b>                       | It refers to opportunities for improvement stemming from extending risk management to more comprehensive, global areas of the organization. The idea of having a broader approach is repeated in many cases. Considering external risks, strategic-plan risks, and reputational risks...                                     |
| <b>Knowledge management</b>   | References to opportunities for improvement linked to the need to systematize knowledge management - its identification, collection, documentation, and also its dissemination - within the organization. Incorporate technology and collaborative document and knowledge management tools to extend its capabilities.       |
| <b>Process management and improvement</b>                             | It refers to opportunities for improvement linked to process management. Either in its extension, in its depth, in its design, in the role of the leaders of the processes and above all as a tool for improving the functioning and continuous improvement.   |
| <b>Strategy planning and execution</b>                                | It refers to opportunities for improvement linked to the planning and execution of the strategy, including its alignment with purpose and mission, the robustness of the process, the involvement of the GGIs in it, and the monitoring of operational plans and their execution.  |
| <b>Indicators system</b>  | It refers to opportunities for improvement identified in the management of indicators in organizations: their simplification due to their tendency to be numerous, the possibility of aggregation, systematization in their collection and management, and digitalization. All this is aimed at reinforcing the capacity for |

| Themes   | Definition   |
|--|--|
|  | impact on management through the measurement of what is relevant to the organization.  |
| <b>Digital transformation as a strategy</b>    | It refers to opportunities for improvement aimed at making organizations more strategic in their digital transformation plans, enhancing them, and opening them up to the entire organization, thereby linking them more clearly and directly to the strategy.   |
| <b>Strengths</b>                               |  |
| <b>Digitalization and technology</b>           | It refers to the strengths highlighted by evaluators related to the processes of digitization within organizations and their digital transformation. Mix of focus on improving performance through process improvement and efficiency, and at the same time seeking transformation, improving radical... |
| <b>Organizational and governance structure</b> | It refers to how evaluators highlight as a strong point the management/organizational and governance structures of organizations to serve the fulfillment of their purpose and strategy, and also how they respond to transformation initiatives.  |
| <b>Data-driven analytical management</b>       | Data-driven analysis capability designed to enhance performance. References to efficiency, effectiveness, and data-driven decision-making.   |
| <b>Asset Management &amp; Maintenance</b>      | Asset management and maintenance programs stand out as key strengths in achieving maximum efficiency. Incorporation of technology for better management, and incorporation of concepts such as preventive and predictive maintenance.  |
| <b>Innovation Management</b>                   | in services and products. It refers to outstanding strengths in innovation management, linked to R&D+i processes aimed at developing new products and services. Also related to technologies.  |
| <b>Transformation Management</b>               | It refers to the outstanding strengths of transformation processes implemented by organizations, most of which are linked to their strategic plans and include elements such as organizational transformation, processes, digital, and value proposition.  |
| <b>Risk Management</b>                         | It refers to standardized risk management systems and practices that incorporate risk identification, evaluation, and mitigation plans. Linked to processes, but also very widespread, strategic risk management is based on methodologies such as COSO.   |

| Themes                                    | Definition   |
|---|--|
| <b>Knowledge management</b>               | References as strengths to the development of practices to structure knowledge management and to promote organizational learning.  |
| <b>Economic and financial management</b>  | It refers to management practices aimed at economic control, to ensure operations through the availability of financing and financial capacity, budgetary control, and analytical control that support operations.   |
| <b>Process management and improvement</b> | It emphasizes the importance of reinforcing process-based management approaches and their improvement within organizations as a key strength. Management approach linked to the operation.   |
| <b>Strategy planning and execution</b>    | It reinforces as a strong point the structuring of strategic plans as tools to promote transformation through plans, projects and initiatives.   |
| <b>Operational Management System</b>      | Operational model and monitoring, quality, and integrated management system. Integrated Quality System. Strong point linked to performance. It provides stability in management and assurance of compliance with quality, environmental, prevention, and safety standards... |

Overall, the findings indicate that ambidexterity in EFQM-recognized organizations is predominantly implemented through formal governance, performance management, integrated management systems, and transformation structures, with varying degrees of integration between exploitation- and exploration-oriented practices.

A first dominant pattern concerns the use of formal governance and strategic management systems to structure ambidexterity. Organizations frequently reported deploying strategic plans, objectives, indicators, and monitoring mechanisms that explicitly link performance and transformation initiatives. These practices were consistently identified as strengths in assessment reports, highlighting the maturity of the governance structures that support organizational alignment and control.

A second pattern relates to the asymmetrical development of exploitation and exploration practices. Performance management, risk control, and operational excellence practices were extensively represented across the dataset, whereas innovation management, change management, and exploratory initiatives were less consistently formalized. Assessment reports repeatedly identified opportunities to

strengthen transformation-oriented practices, suggesting an imbalance in the implementation of ambidexterity.

A third pattern concerns the incremental nature of transformation initiatives. Transformation efforts were commonly described through project portfolios, continuous improvement programs, and incremental innovation initiatives. These practices were often positioned as extensions of existing performance systems rather than as drivers of systemic organizational redesign. Assessors acknowledged the effectiveness of these approaches while also noting the need to strengthen their strategic coherence and long-term orientation.

Taken together, these findings suggest that ambidexterity practices in EFQM-recognized organizations are characterized by strong formal structures that support performance and alignment, combined with more heterogeneous, less formalized approaches to exploration, cultural change, and organizational renewal (for further details of the complete themes and subthemes identified in the thematic analysis, see Appendix F).

#### 4.5 Cross-cutting patterns and empirical synthesis

As we presented, this “Findings” chapter has been structured following the three research questions that this dissertation tries to answer, following the framework presented in Figure 16:

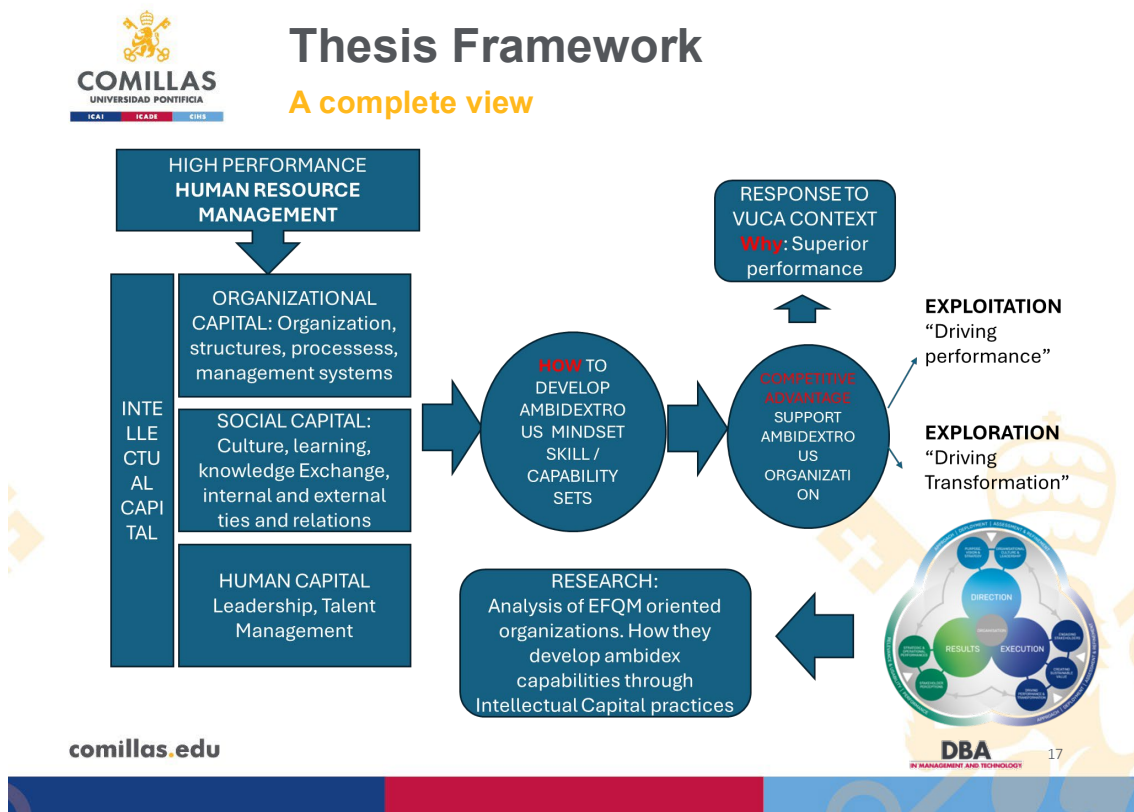


Figure 17: Thesis framework. A complete view

Following this framework, we identify several recurring and intersecting patterns that can be summarized as follows.

**Pattern 1:** HR practices serve as contextual enablers rather than direct mechanisms of ambidexterity. They serve to promote stability, engagement, and employability, to reinforce individual learning capabilities, and to support the accumulation of intellectual capital (mainly human capital).

Empirically, the thematic analysis shows a preponderance of training, leadership development, performance management, and recognition/reward practices. A prevalence of mature standardized HR systems and an emphasis on formalization rather than experimentation and adaptability.

**Key finding:** HR practices create the conditions for ambidexterity rather than acting as a direct ambidextrous mechanism. Besides, they are strongly oriented towards enhancing Human Capital assets (individual talent) and less oriented towards building adaptability capabilities and stimulating collective talent.

**Pattern 2:** Human Capital is strong in “mature” practices, weaker in future-oriented capabilities. As observed in the thematic analysis, HC development is characterized by the widespread deployment of training systems, competency models, leadership programs, and performance evaluations. This finding is reaffirmed by the assessors, who recognize these practices as strengths. At the same time, recurring areas of improvement are identified in themes such as leadership impact, reskilling, innovation capabilities, and talent pipelines.

**Key finding:** HC is highly supported around mature and traditional HR core practices, while more future-oriented, transformation-related capabilities appear less systematically developed.

**Pattern 3:** Organizational Capital is the most formalized and developed second-tier cluster in EFQM organizations and exhibits an exploitation-oriented bias.

Organizational Capital is highly formalized, strongly codified, and referenced, and is dominated by integrated management systems, processes, standards, KPIs, scorecards, audits, and digital infrastructures.

Assessment reports consistently highlight these systems as strengths, while opportunities for improvement are centered on themes such as innovation management, change and transformation management, learning from experience, and knowledge renewal.

**Key finding:** Organizational Capital strongly supports the performance and exploitation aspects of ambidexterity, while its contribution to exploration and transformation is weaker.

**Pattern 4:** Relational Capital is widely recognized but less systematized and extended.

The findings from Relational Capital show a clear pattern. Collaboration, participation, partnerships, and stakeholder relationships are frequently mentioned; however, assessment reports consistently identify opportunities for improvement related to cross-functional collaboration, psychological safety, leadership impact, structured participation, and systematic learning from relationships.

Key finding: Relational Capital is already valued but unevenly systematically deployed, relying more on intent and initiatives than on robust, well-established systems. This makes relational capital a critical but still fragile enabler of exploration and transformation.

Pattern 5: Expert prioritization (ANP) elevates Relational Capital over Human and organizational Capital.

The ANP results conclude a crucial quantitative consolidation of the qualitative findings. Relational Capital factors receive the highest aggregate weights, with the top two factors accounting for more than 10% each. On the other hand, Human Capital factors receive the lowest relative weights. Besides, expert agreement among the most relevant factors is high, reinforcing the robustness of the results.

Key finding: Experts prioritize relational and cultural factors as the most critical for ambidexterity, despite organizations investing heavily in Human and Organizational Capital Systems. This finding raises a powerful critical tension.

Pattern 6: Ambidexterity is mainly implemented through formal, exploitation–biased architectures.

EFQM organizations implement ambidexterity mainly through formal governance systems, strategic planning, performance monitoring, project-based transformation, and alignment-driven mechanisms. At the same time, exploration-oriented practices are less formalized, transformation is often incremental rather than radical, and cultural and people-based enablers are less embedded.

Key finding: Ambidexterity is primarily put into practice through formal managerial systems, with a stronger emphasis on exploitation than on exploration.

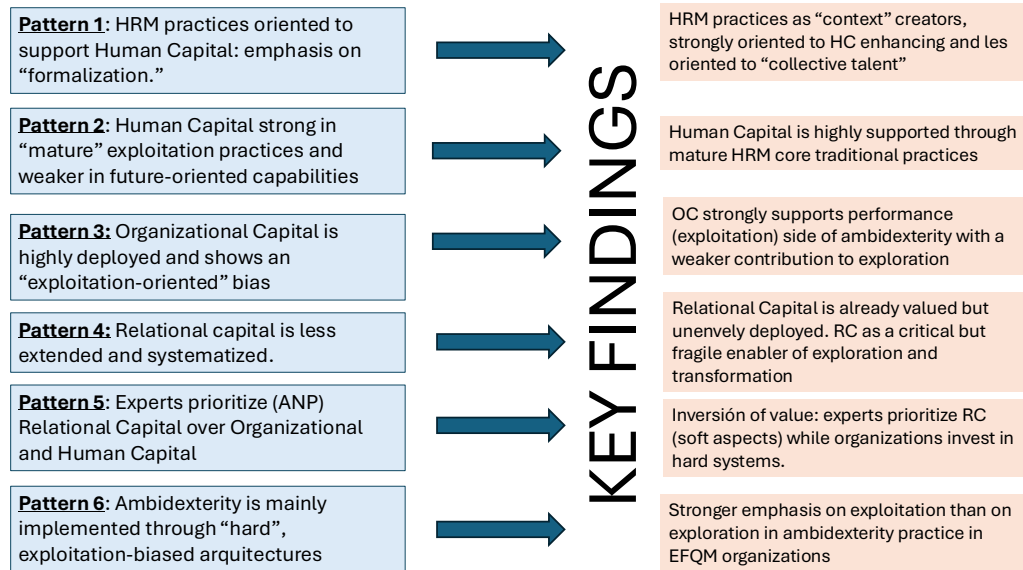


Figure 18: Summary of key patterns and findings

## 5. Discussion

### 5.1 The way to achieve ambidexterity

VUCA obliges organizations to develop advanced skills to manage paradoxes and continuous tensions. The very same nature of ambidexterity as an organizational capability is, in essence, a paradox management capability. To balance and manage simultaneously, and effectively, exploitation and exploration, performance and transformation, organizations are confronted with tensions and contradictions that require both strong systems, ways of working, and structures (the “hard stuff”) and robust and adequate organizational cultures, leadership models and styles, and people alignment on a common purpose (the “soft stuff”).

The paradoxical relationship between hard and soft elements has long been recognized in management thinking. Peters and Waterman (1984) famously captured this tension with the expression “hard is soft, soft is hard”, highlighting that formal plans and systems are often less decisive than assumed, while people-related and cultural factors, despite being harder to formalize, frequently prove critical for sustained performance. The findings of this dissertation resonate strongly with this paradox.

The aim of this dissertation is to analyze the impact of “human” factors on enhancing ambidexterity as a response to the increasing volatility, uncertainty, complexity, and ambiguity of the internal and external contexts and ecosystems in which organizations operate.

The literature review presents in a structured way the framework followed in the dissertation:

- High-impact HR practices create an adequate context to propel intellectual capital assets and organizational learning capacity.
- Intellectual Capital and its second-tier clusters, Human Capital, Organizational Capital, and Relational Capital mediate the enhancement of ambidexterity as an organizational capability combining adequately hard-oriented architectures as management systems, structures, and ways of working, and soft-oriented

business practices as culture, leadership, psychological safety, diversity and inclusion, training...

- Ambidexterity as an organizational dynamic capability allows organizations to deploy adequate responses to business challenges in VUCA contexts to balance and manage exploitation activities, such as efficiency, quality, continuous improvement, productivity gains, and robust processes, simultaneously, and exploration activities, such as innovation, discovery, business agility, and adaptability to rapidly changing environments.
- Ambidexterity as a distinctive organizational capability and its deployment through business practices may become a sustainable competitive advantage in VUCA contexts.

Following this framework and the research gap identified through the literature review, we have presented three research questions that have been thoroughly analyzed through a QUAL–QUAN mixed-methods research approach, based on an extensive dataset of more than 300 excellent Spanish organizations that follow the EFQM Model.

The discussion is structured around these three interconnected questions: how intellectual capital contributes to ambidexterity (RQ1), how HR practices create the context for that contribution (RQ2), and how organizations operationalize ambidexterity in practice (RQ3), all interpreted through the lens of the interaction between hard and soft organizational elements.

Ambidexterity emerges from the recursive interaction and sequencing of “hard” organizational systems and “soft” relational and cultural foundations, drawing explicitly on the answers to RQ1, RQ2, and RQ3 identified in the findings.

## 5.2RQ2: HR practices as contextual enablers

The literature review has shown the relevance of HR practices to support ambidexterity (Adler et al. 1999; Hansen et al. 2019; Jorgensen and Becker 2017; Junni et al. 2013; Junni et al. 2015) and, more specifically, the strategic HRM literature emphasizes the relevance of the configurational approach, “High Performance (impact) Work Practices,” as an adequate HR Management framework for creating an appropriate context to enhance and promote ambidexterity. In this sense, HR does not directly ‘produce’

ambidexterity, but shapes the organizational conditions under which ambidextrous behaviors may or may not emerge

In our research, we have analyzed, following this framework, the High Impact HR practices of the EFQM, following organizations, finding a strong presence of formal HR systems, such as training plans, performance appraisals, competency frameworks, and leadership assessment and development practices, with an emphasis on individual-level Human Capital assets enhancement.

However, HR practices are less prevalent in relation to relational capital, collective talent, and collaboration-oriented practices. The results demonstrate how HR systems effectively stabilize context but do not clearly facilitate exploration.

We can conclude from these findings that HR Systems in the analyzed organizations act as Human Capital-oriented enablers, reinforcing reliability, employability, and the accumulation of capabilities at the individual level. Additionally, they appear to be auditable, scalable, and aligned with the EFQM Radar framework.

This dominance of formal HR systems is consistent with strategic HRM assumptions that emphasize alignment, control, and consistency, but it also reveals a structural bias towards outcomes oriented towards exploitation.

Thus, these hard initiatives and practices primarily enable the exploitation–performance side of ambidexterity and provide the necessary means to leverage this performance and continuous improvement orientation. However, they tend to underaddress collective learning, collaborative cultures, psychological safety, relational coordination among employees, and internal “silos,” all elements of Relational Capital that are essential for exploration, adaptability, and innovation.

The findings suggest that HR practices contribute to ambidexterity primarily by creating a stable and capable organizational context, rather than by directly enabling exploration. Their contribution is indirect and mediated through the development of intellectual capital, particularly human and organizational capital, and is less oriented to the development of relational capital.

These findings highlight an opportunity in the current positioning of the HR function, whose strong orientation towards exploitation-related capabilities may constrain its potential contribution to ambidexterity. The actual orientation to anchor exploitation-related capabilities limits the strategic impact of the function. It appears to be a significant opportunity to lead internally and dedicate further resources to developing practices and architectures that can enhance relational capital assets, foster collaborative cultures, and adapt mechanisms to promote and facilitate the implementation of new ways of working oriented to cross collaboration, innovation, taking further risks, decentralizing, and accelerating decision processes.

### 5.3RQ1: Intellectual Capital, ambidexterity, and the “hard-soft paradox”

As extensively discussed in the literature review, Intellectual Capital is defined as the organization-wide knowledge resources that, in combination, constitute organizational capabilities, such as ambidexterity, enabling the organization to act and compete. There is a broad literature explaining the IC construct, its second-tier elements (human capital, organizational capital, and relational-social capital), and both its fixed-asset (stock-of-knowledge) and dynamic mechanisms related to learning and absorptive capacity at the organizational level. (Andreeva and Kianto 2012; Bontis 1998; Cabello-Medina et al. 2011; Fernandez-Perez de la Lastra et al. 2017; Kianto et al. 2017; Martín-de-Castro et al. 2011; Nahapiet and Ghoshal 1998; Youndt and Snell 2004)

Through the present analysis, we have answered the central research question of this dissertation, how does IC contribute to the development of ambidextrous capabilities and we have proceeded through the CUAL-CUAN mixed method, identifying first in the data set via thematic analysis the most extended business practices to develop the three second-tier IC clusters, selecting the 23 main themes and converting them into factors grouped on each of the 3 clusters and implementing with an expert group of highly experienced managers a multi criteria decision making process with ANP method to prioritise according to the expert judgment of the 12 practitioners the most relevant factors for ambidexterity.

In the thematic analysis, we concluded that initiatives and management practices oriented toward organizational capital enhancement are the most developed, formalized, and consistently recognized as strengths in the EFQM assessment reports. Human Capital practices are, in a similar way, strong in a foundational basis, but weaker in future and exploration-oriented capabilities; and finally, relational capital initiatives are less formalized and more uneven.

However, and very interestingly, the relational capital factors have been clearly prioritized by the experts in the ANP.

These findings show us that organizations invest much more in organizational capital and human capital-related initiatives and business practices; that is, in hard practices, probably based on a “legacy” of more controllable, auditable, and measurable, well-known management practices.

At the same time, the findings reveal the relevance these decision-makers and managers attribute to soft issues related to relational capital, such as collaborative cultures, leadership practices designed to foster collaboration, and inclusion practices that promote psychological safety.

This reveals another paradox, or “inversion of value,” between the most widely implemented practices and the prioritization of factors. The organization that treats “soft” issues as decisive for the exploratory side of ambidexterity and thereby becomes more adaptive and agile.

Beyond its empirical relevance, this pattern reveals a more fundamental conceptual insight that challenges a dominant implicit assumption in organizational practice and in parts of the management literature: namely, the intellectual capital dimensions most heavily invested in and formalized by organizations are also those most critical for the development of ambidextrous capabilities.

The findings of this study indicate that this assumption does not hold, particularly with regard to the exploration dimension of ambidexterity. While organizational and human capital are systematically developed through formal systems, processes, and HR architectures, it is relational capital—often treated as a secondary or “soft” dimension—that experienced practitioners prioritize as most decisive for ambidexterity.

This “inversion of value” suggests that the drivers of adaptive and exploratory capacity are not necessarily the easiest to design, control, and audit, but rather those that are more difficult to formalize, such as trust, collaboration, leadership-mediated relationships, and psychological safety. In this sense, the study contributes conceptually by highlighting a misalignment between organizational investment patterns and the mechanisms that enable ambidexterity, particularly in contexts characterized by high uncertainty and change.

## The “inversión of value”: A managerial blind spot in ambidexterity

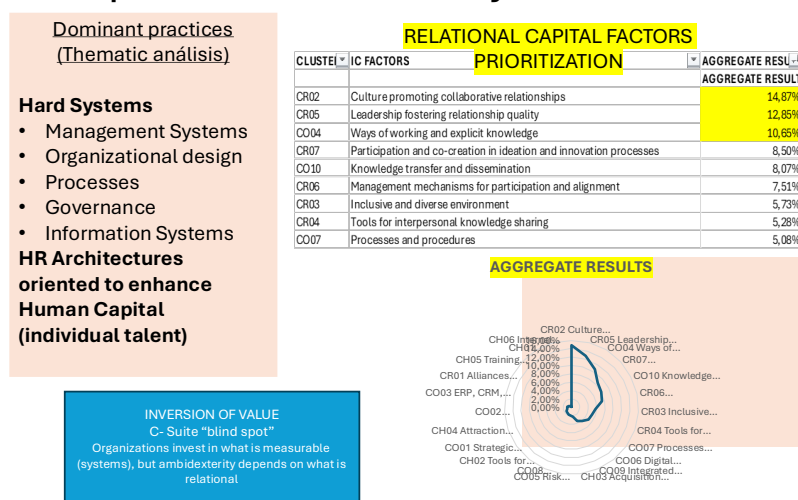


Figure 19: The “inversion of value”: A managerial blind spot in ambidexterity

The conclusion reinforces the relevance of the combination and configurations of the three second-tier clusters of IC. Following the work of Youndt and Snell (2004) Ambidextrous learning is derived from IC architectures that underlie different configurations of HC, OC, and RC. The findings of this research emphasize the relevance of relational capital as a mediating dimension between systems (OC) and People (HC).

Relational capital serves as a social integration mechanism, enabling the recombination of individual skills and formal systems into collective learning and adaptive action, preparing the organization to better adopt “hard” new systems, processes, ways of working, technologies, or digital disruptions.

The findings indicate that Intellectual Capital contributes to ambidexterity through a differentiated configuration: organizational and human capital provide the structural and

capability foundations for performance, while relational capital plays a critical mediating role in enabling adoption, support, exploration, and adaptive change.

### 5.4RQ3: How is ambidexterity implemented

Taken together, the findings related to RQ1 and RQ2 provide a coherent explanation for why ambidexterity remains difficult to institutionalize, even among organizations that demonstrate high levels of managerial excellence.

HR practices predominantly shape a stable and reliable organizational context by reinforcing, mainly, individual human capital and, to some extent, formal organizational architectures, while intellectual capital investments concentrate on organizational and human capital dimensions that support performance and exploitation.

At the same time, the intellectual capital dimension most closely associated with exploration and adaptability—relational capital—is comparatively less formalized and systematically developed, despite being prioritized by experienced practitioners, as shown in the ANP expert focus group results.

This combination results in an organizational configuration in which the conditions for efficiency and continuous improvement are strongly embedded (exploitation), whereas the social and relational mechanisms required for sustained exploration and adaptability remain fragile or unevenly developed.

Ambidexterity, therefore, is not constrained by a lack of formal systems or managerial intent, but by a misalignment between contextual enablers, capability architectures, and the relational foundations necessary to translate exploration into a repeatable organizational capability. Thus, ambidexterity fails not because of a lack of tools or management systems, but because of weak mechanisms for the adoption and absorption of relational and cultural practices.

This conclusion leads us to RQ3, which asks: “How do organizations implement ambidexterity in practice?” As we have found in the thematic analysis of EFQM organizations, ambidexterity is achieved primarily through the implementation of

business practices and mechanisms, including governance systems, strategic planning, KPIs, and dashboards, particularly in project-based transformations.

The management orientation toward implementing the EFQM criterion 5, “managing performance and transformation,” is therefore strongly biased toward the exploitation side of ambidexterity. Exploration is supported mainly through incremental initiatives. Additionally, cultural and relational enablers are identified as opportunities for improvement in the assessment reports analyzed in the dataset.

We can conclude that “hard systems” are the primary visible vehicles for implementing ambidexterity efforts into practice. They initiate, align, and coordinate transformation efforts; however, their effectiveness and adoption depend on “soft elements” such as collaborative culture, leadership behaviors, trust, inclusion, collaboration patterns, or psychological safety.

These findings contribute to reconciling the structural and contextual perspectives in the ambidexterity literature by demonstrating how formal organizational architectures and relational mechanisms interact in mutually reinforcing and recursive ways over time. While classical ambidexterity research has often treated structural and contextual approaches as alternative or complementary design choices (O'Reilly III and Tushman 2013; Raisch et al. 2009) the results of this study suggest that ambidexterity is better understood as an emergent organizational capability resulting from the recursive interaction of both mechanisms. In this sense, the findings extend existing ambidexterity theory by highlighting not only the relevance of both structural (“hard”) and contextual (“soft”) mechanisms, but also the dynamic processes through which their interaction enables the sustained development of ambidexterity as a dynamic organizational capability.

This perspective gives rise to what may be described as the “hard–soft paradox”: the question of which organizational mechanisms initiate the development of management-based competitive advantages such as ambidexterity. The findings of this research suggest a differentiated but complementary role. Formal organizational architectures - management systems, governance structures, operational models, and HR architectures- play a critical role in triggering and scaling transformation initiatives.

However, relational mechanisms, including leadership behaviours, collaborative culture, psychological safety, and trust, mediate the absorption, adoption, learning, and long-term sustainability of these initiatives. Ambidexterity, therefore, does not emerge from linear sequencing or the predominance of either structural or contextual solutions, but rather from a recursive and coordinated interaction between hard and soft management mechanisms.

From a dynamic capabilities perspective (Teece, David 2012; Teece, David J. et al. 1997; Teece, David J. 2018) these findings suggest that ambidexterity becomes an organizational capability when formal initiatives are progressively transformed into repeatable routines through relationally mediated learning processes. In this sense, formal systems enable the initiation and scaling of change, while relational capital determines whether those systems are internalized, recombined, and sustained within organizational practice.

Therefore, ambidexterity is implemented primarily through formal organizational architectures, but its consolidation as a durable organizational capability depends on relational and leadership-based mechanisms that mediate the effectiveness of those architectures over time. The findings indicate that ambidexterity may fail not because organizations lack initiatives, tools, or formal systems, but because they lack the relational and cultural conditions required to transform those initiatives into sustained dynamic capabilities.

#### An integrative synthesis and managerial implications: resolving the hard–soft paradox

As previously explained, Figure 18 illustrates how ambidexterity emerges from the recursive interaction (and, therefore, integration) between hard organizational systems and soft relational foundations, mediated by the configuration of intellectual capital. While hard systems initiate, coordinate, and scale performance and transformation efforts, relational and cultural foundations mediate learning, absorption, and sustainability. Ambidexterity consolidates as an organizational capability and a “management-based” competitive advantage for competing in VUCA contexts, through continuous feedback among formal architectures, relational mechanisms, and intellectual capital over time. The HR function, along with its policies and practices,

creates the context and can serve as the integrator and architect of the appropriate recursive interaction between the hard and the soft mechanisms.

A recursive “hard-soft” Model of Ambidexterity as an organizational capability to compete sustainably in a VUCA context

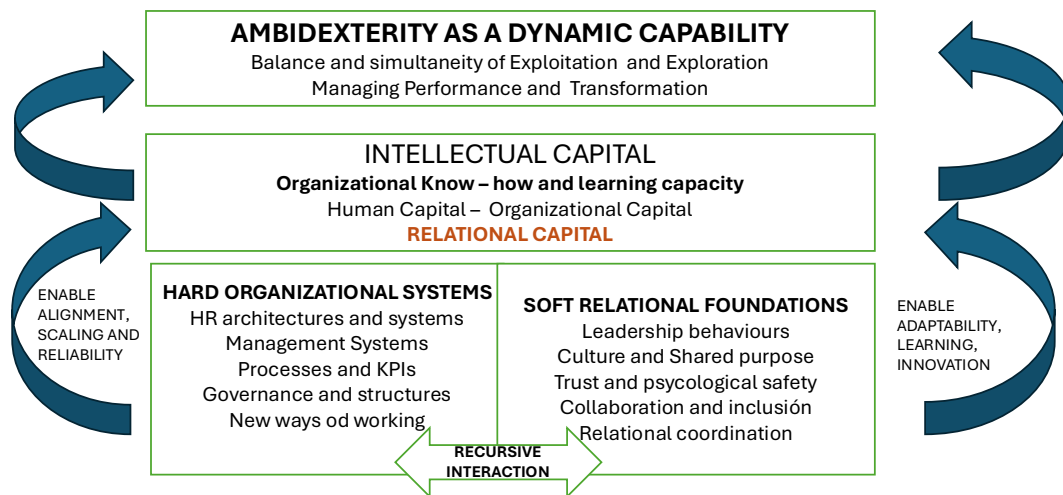


Figure 20: A recursive “hard-soft” ambidexterity Model

Hard systems trigger and scale change; soft foundations mediate adoption, absorption, and sustainability.

This framework creates a clear “actionable” pathway for organizations at their different management levels.

For CEOs and C-Suite Committee members, it appears to be a great opportunity to develop ambidexterity as a management-based organizational capability that could become a “hard-to-copy” competitive advantage in VUCA contexts. The adequate management of recursive interactions and the appropriate synergetic integration of “hard” management systems, processes, new ways of working, and “soft” mechanisms, such as shared purpose, leadership behaviors, collaborative culture enhancers, and relational (both internal and external) coordination mechanisms, will become key to empowering and refreshing organizational know-how that leads to ambidexterity.

For HR Leaders and their function, it appears to be a significant opportunity to adopt a strategic architecture role, assessing the CEO and C-Suite directors as “experts” in integrating both Hard and Soft elements (mainly the latter). However, there is a clear

challenge for the HR Function to reinforce and delve into those soft relational foundations that are underworked and underrepresented in this moment in the “mainstream” of HR practices, which are more oriented to “human capital” or individual talent development.

There is a big opportunity for the HR function to develop relevant and impactful practices that enhance relational capital and foster cooperative cultures, creating an adequate context to “prepare the ground” for reinforcing the impact of “hard” frameworks as new ways of working, new operating and organizational models, and high-impact transformation initiatives.

For EFQM organizations, which have been the focus of our analysis and research in this dissertation, striking a balance between excellence and adaptability presents a significant challenge. The very same nature and evolution (legacy) of the EFQM Model that was based on previous releases in the exploitation side of ambidexterity and the relevance of the robustness and accuracy of the management frameworks, probably has introduced a culture of preponderance of “hard” systems that have to evolve to a more adaptability-oriented management. The analysis shows a clear pattern in the dataset: organizations have over-invested in stabilizing capabilities (efficiency, control, exploitation) and under-invested in recombinative soft capabilities (learning and collaboration across boundaries).

This chapter discusses the dissertation's findings by interpreting them through the lens of ambidexterity as a paradox-management organizational capability. By integrating results on HR practices (RQ2), intellectual capital configurations (RQ1), and ambidexterity implementation mechanisms (RQ3), the discussion shows that ambidexterity does not arise from isolated initiatives or singular design choices. Rather, it emerges from the recursive interaction between formal organizational and managerial architectures and relational and cultural foundations, mediated by the configuration of intellectual capital over time.

The discussion has highlighted a central tension underpinning the development of ambidexterity in organizations. While hard systems—such as governance structures, performance management frameworks, and formal HR architectures—are essential for

initiating, coordinating, and scaling performance and transformation efforts, they are insufficient to consolidate ambidexterity as an organizational capability. The findings reveal an “inversion of value”, whereby relational capital, often treated as a secondary or “soft” dimension, plays a decisive mediating role in enabling learning, exploration, and adaptive change. Ambidexterity, therefore, is constrained not by a lack of managerial intent or formal tools but by the absence of relational and cultural conditions that allow organizations to absorb, sustain, and routinize exploratory practices.

Building on these insights, the chapter proposes a recursive hard–soft model of ambidexterity that reconciles the structural and contextual perspectives of ambidexterity in the literature. This model provides the basis for understanding ambidexterity as a dynamic, management-based capability rather than a static organizational attribute. The next chapter builds on this discussion to articulate the study's theoretical, methodological, and managerial contributions, reflect on its limitations, and outline directions for future research.

## 6. Conclusion

### 6.1 Summary of the research and key findings

Management-based built capabilities as a competitive advantage, and the HR function's leading role in achieving them, were the origin and internal motivation for this researcher's DBA adventure. After more than 30 years of managerial experience, primarily as an HR leader, and having faced the challenge of being part of a C-Suite team in a VUCA context, I began my DBA program, driven by this personal and professional experience.

The DBA journey led me from a first idea that was how to transform into a more agile and adaptive organization, and which were the main drivers to make this change, and the literature review led me to the “organizational ambidexterity” or “ambidextrous organization” as an academic concept that, although not present nor commonly used in the practitioner manager world, revealed to me as the answer to the need to transform, adapt and innovate, while remain the needed performance and capability to exploit the current business and achieve the results to build the future.

This paradoxical managerial academic construct and the “how” to achieve this capability from HR related mechanisms made sense as the DBA dissertation that could complete my aim to make an impact that could reinforce the strategic relevance of the HR function.

The other big serendipity “aha” came from my professional relationship with the EFQM Model. The release of the EFQM 2020 Model seemed to me a brilliant response to the challenges organizations face in this ultra-VUCA context. Within the model, Criterion 5, “Managing performance and transformation,” incorporates the “ambidexterity” issue in a literal academic sense.

The access, thanks to “Club Excelencia en Gestión”, to the impressive “data-set” of more than 300 Spanish organizations, both from the formal memories presented by the organizations and the assessment reports highlighting the strengths and opportunities of improvement, provided us with the basis to structure a research that could combine a robust literature review about how to enhance ambidexterity from an HR management perspective with an innovative mixed-method methodology.

This methodology would allow us an AI-based approach to analyze a huge “text-based” data set that would facilitate a thorough thematic analysis searching for key themes to respond to our research questions, and completing the research with a quantitative tool to manage multi-criteria decision making in the context of an expert group of managers that prioritized the IC factors identified in the thematic analysis.

To summarize, we conclude that the research makes three key contributions through the thorough analysis and triangulation of the mixed-methods approach.

From an empirical perspective, EFQM organizations primarily implement ambidexterity through hard systems (management systems, organizational structures, and new ways of working), which reinforce exploitation but struggle to consolidate exploration due to the weakness of their “soft” foundations. The HR function plays context-creating roles, but the most prevalent HR practices are oriented towards enhancing human capital and individual capabilities, with fewer practices focused on creating “relational capital.”

From a conceptual perspective, the research shows an insight that we have defined as “inversion of value” through the ANP decision-making process. The expert group prioritizes relational capital factors (collaborative culture, leadership, and inclusion), while the most widely implemented management practices focus on “hard systems” that impact organizational and human capital. This finding reinforces the Intellectual Capital configurations and the mediating role of “relational capital” in shaping the exploration side of ambidexterity.

And finally, we propose an integrative approach to resolve the hard-soft debate through a recursive interaction model. This model proposes that hard systems are highly relevant for initiating, triggering, and scaling the path to ambidexterity, while soft systems play a crucial role in facilitating the adoption, absorption, and sustainability of the process that enables an organization to achieve ambidexterity as a capability.

## 6.2 Theoretical contributions

From an academic perspective, this dissertation presents two relevant contributions.

The first contribution is substantive and reinforces empirical–theoretical knowledge about HR and IC factors as mediators of ambidexterity. The research, based on more

than 300 Spanish organizations following the EFQM model, allows us to delve into real managerial practices that link clearly the HR practices that create the context to enhance Intellectual Capital, defined as the knowledge stock and learning capacity that is a mediator to create and enhance ambidexterity at the organizational level.

Besides, the use of both formal EFQM memories with the “voice” of the organization and assessment reports with the critical perspective of external assessors of those same organizations reinforces triangulation of findings to achieve more robust patterns.

As presented in the literature review chapter, a vast body of literature defines the link between high-impact HR practices, their three second-tier clusters, and their impact on ambidexterity as a dynamic capability. However, the research gap identified in the same literature concerns how this impact is implemented in practice. This research, based on a wide variety of organizations, enables us to identify and analyze, through a thematic analysis, the themes and subthemes that encompass the real business practices these organizations are implementing from the HR and IC perspective to manage performance and transformation simultaneously.

Through this thematic analysis, we have identified 23 Intellectual Capital factors grouped into three second-tier clusters: Human Capital, Organizational Capital, and Relational Capital, which have served as the basis for the ANP multicriteria prioritization. This contribution to the understanding of Intellectual Capital through the identified factors is another significant contribution of this dissertation.

The ANP analysis and its results reinforce the relevance of relational capital factors and mediators in achieving ambidexterity, as they clearly enhance exploration capabilities. Besides the extensive literature on Intellectual Capital configurations to achieve ambidexterity, this research reinforces the relevance of hard–soft management by proposing a recursive model that could resolve the paradox and accelerate the organization's impact in reinforcing its ambidexterity.

This dissertation advances ambidexterity theory by proposing that ambidexterity should be understood not primarily as a structural or contextual design choice, but as a capability-building process emerging from the recursive interaction between organizational architectures and relational mechanisms.

While prior research has often treated structural and contextual ambidexterity as alternative or complementary organizational arrangements (O'Reilly III and Tushman 2013; Raisch et al. 2009) the findings of this study suggest that ambidexterity develops through continuous interaction between organizational capital (formal systems, governance structures, and management architectures) and relational capital (leadership behaviors, trust, collaboration, and psychological safety).

From this perspective, ambidexterity becomes a dynamic organizational capability when formal initiatives are progressively internalized and transformed into repeatable routines through relationally mediated learning processes. By integrating ambidexterity research with the intellectual capital and dynamic capabilities perspectives, this study provides a theoretical explanation of how organizations translate formal transformation initiatives into sustained organizational adaptability.

The second main contribution of this dissertation comes from the mixed-methodology used to answer the research questions.

The combination of:

An AI-based large content analysis oriented to extract the most relevant elements in wider documents through curated prompts,

followed by the conversion of these outputs into a large database of the 135 most excellent organizations that have been qualitatively analyzed through a thematic analysis in NVIVO 15, identifying themes and subthemes, which have been defined and structured in a way that has allowed us to obtain patterns that could respond to the research questions

and the use of a quantitative methodology, ANP, with an expert focus group to prioritize the 23 IC factors obtained from the previous thematic analysis.

Clearly supposes an innovative methodological approach that reinforces the external validation of the findings and the triangulation of the results through different and complementary methods in a robust and academic manner.

### 6.3 Managerial and practical implications: A call to action

Ambidexterity as a dynamic organizational capability appears to be a key element in creating competitive advantage in contexts characterized by growth, volatility, uncertainty, complexity, and ambiguity.

In a business world where it is increasingly difficult to attain sustainable differentiation through products, services, markets, or technology, management and culture-based competitive advantages are gaining interest and relevance. Terms like resilience, adaptability, business agility, innovation, human-centered management, collective talent, and sustainability are the key actual business buzzwords and mantras. Ambidexterity encompasses these terms and may serve as a practical management framework to help all types of organizations better prepare to compete and sustain themselves in this complex business context.

This dissertation presents a practical approach to establishing an architecture and the general framework for reinforcing ambidexterity. While this thesis does not propose a prescriptive model, the empirical patterns identified suggest a sequence of managerial actions (as shown in Figure 21) that can guide practitioners in this process.

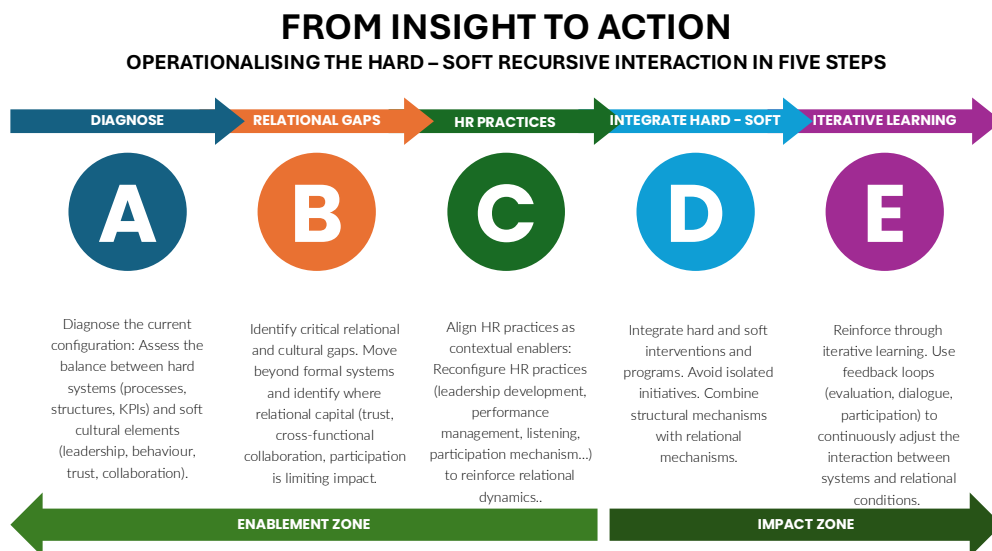


Figure 21: From Insight to Action

At the board level, reinforcing their awareness of ambidexterity's relevance and impact as a key differentiator for competing and innovating. From the CEO and C-suite teams,

the results show the way to execute a strategy that reinforces ambidexterity. The main conclusion is that these strategies must integrate hard systems and soft foundations in a coordinated and integrated manner.

This research provides a clear direction, establishes a framework, and identifies the most relevant factors. The CEO and her team have to assess and evaluate the maturity and preparedness of their organization to implement the “ideal hard-soft combination program,” always keeping in mind that both elements are necessary, and what is more important, managed jointly. The “Hard is soft, soft is hard” principle has to guide these efforts.

For the HR function, it clearly supposes a great opportunity to take a central leading role in this transformation. As has been analyzed, HR practices create the context that enhances the IC, which in turn mediates the enhancement of ambidexterity. The challenge for the HR function is to integrate, become conscious, and innovate within relevant frameworks to address the issue of “soft foundations.” There are many initiatives, and the relevance of cultural, leadership, inclusiveness, and relational programs and frameworks is growing. However, the key impact of the function will remain in the “architectural capability” to integrate hard initiatives with these soft-oriented programs. The real impact is behind this recursive integration and the acceleration capacity it will deliver to enhance ambidexterity.

The research reveals a relevant pattern that warrants highlighting. The strategic relevance of HR is not limited by a lack of capacity, talent, ambition, or tools, but by its actual anchoring in stabilization and human capital enhancement logics, rather than recombination logics oriented to promote and enhance relational capital and establish the architecture to integrate hard systems with people and culture-centered soft foundations. This is exactly the great challenge for HR leaders: to become real strategic contributors in leading this effort.

Finally, for EFQM, this research provides an excellent benchmark for the following organizations, which can be used to strengthen their improvement plans, enhance execution capabilities, and improve management of performance and transformation.

The new releases of the EFQM Model 2020 and 2025 clearly identified the relevance of ambidexterity and reconfigured the traditional perspective of EFQM as a “quality” model, appropriate for more stable contexts and with a strong accent on exploitation. The new releases emphasize the transformation, adaptability, and innovation capabilities that need to be built, and ambidexterity is key to making this change.

EFQM organizations with a “legacy” and a preponderance of systems and cultures oriented toward exploitation have, in this research, a clear way to enhance their exploration capabilities, thereby improving their ambidexterity.

#### 6.4 Limitations of the study and directions for future research

Although, as I have stated previously, the EFQM organization's dataset is a clear strength of this dissertation due to the relevance of its content on HR practices and IC, and the structure of criterion 5 as a proxy for ambidexterity, it could also become a limiting factor. The very nature of these organizations, with an advanced consciousness about the relevance of management systems, could not represent the “mainstream” of Spanish organizations. Future research could combine and compare different types of organizations from different sectors and management maturity levels.

Another relevant research decision was to limit the number of organizations analyzed in the thematic analysis to those with more than 500 EFQM points, i.e., the most advanced and mature from a management perspective. The decision was made based on the assumption that a saturation effect had occurred and that no further organizations would add relevant insights. There may be additional elements in the remaining initial data set, but we will maintain the saturation effect once we finish the research.

Additionally, the “data set” spans the period from 2021 to 2024 in Spanish organizations. More longitudinal and cross-country analysis would be interesting to identify relevant patterns and the logical evolution of organizations in response to these VUCA context challenges.

The expert-based ANP methodology has been used to quantify the relative weights of the 23 IC factors identified; however, there is scope for further quantitative analysis of

their relevance in a broader context, involving more managers, to provide additional insight and reinforce the findings of this research.

However, more importantly, further research should focus on analyzing the impact of well-integrated hard–soft combinations through case studies in ambidextrous organizations, which could provide deeper insight into these recursive interaction mechanisms. Although not directly replicable, they would further our understanding of these mechanisms and establish benchmark reference models for other organizations. Action research methodologies in relevant organizations, along with the qualitative and quantitative insights from top managers and HR leaders leading these transformation initiatives, would be of great benefit in further understanding the best ways to resolve the hard-soft paradox.

### 6.5 Final reflection and propositions

In line with my former company’s purpose, I have really “given my best” in this dissertation. I am really satisfied and complete with the effort, personal learning, and the modest contribution I can deliver with this DBA thesis.

This dissertation represents both an intellectual and professional synthesis of a long managerial journey at the intersection of people, performance, and transformation. It has allowed me to engage deeply in the academic foundations of ambidexterity while remaining firmly grounded in the realities faced by executives and HR leaders operating in volatile, complex contexts.

Beyond its specific findings, the research demonstrates that bridging the academic and practitioner worlds is not only possible but necessary if management research is to remain relevant. The DBA journey at the University of Comillas has enabled that bridge in a meaningful way, transforming practice through theory and theory through practice.

Drawing together the findings and interpretations of this dissertation, three final propositions can be concluded.

First, organizational ambidexterity is constrained less by a lack of formal systems or managerial intent than by a structural misalignment between investment patterns and the relational mechanisms required for exploration.

Second, relational capital operates as a key mediating mechanism that enables the adoption, absorption, and recombination of human and organizational capital into sustained ambidextrous capability.

Third, ambidexterity is neither the outcome of purely structural solutions nor of cultural factors alone. It emerges through a recursive interaction in which hard organizational architectures initiate, trigger, and scale change, while soft relational and leadership-based mechanisms determine its sustainability and long-term impact.

Together, these propositions contribute to a more integrated understanding of ambidexterity as a management-based capability and offer a coherent framework for scholars and practitioners seeking to reconcile performance and transformation in volatile, uncertain contexts.

It is my hope that this research advances scholarly understanding of ambidexterity as an organizational capability and provides a useful framework for leaders seeking to design organizations capable of sustaining performance and transformation simultaneously. If this work helps HR leaders and executive teams rethink the balance between hard systems and soft foundations and manage them as a recursive, integrated whole, then it will have achieved its intended purpose.

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## Appendix A: ANP Questionnaire. Prioritization of Intellectual Capital factors in an expert focus group.

| FACTORES CLAVE DEL CAPITAL INTELECTUAL QUE INFLUYEN EN EL DESARROLLO DE CAPACIDADES AMBIDIESTRAS EN TU ORGANIZACIÓN.<br>Las preguntas buscan conocer tu percepción sobre la influencia de los distintos factores del Capital Intelectual identificados en el desarrollo de capacidades ambidiestras en tu organización |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |
|--|-------------------------------|----------------------|-------------------------|------------------------------|-----------------------|------------------------------|-------------------------|----------------------|-------------------------------|--|
| FACTOR COMPARADO 1   | Extremadamente más importante | Mucho más importante | Bastante más importante | Moderadamente más importante | Igualmente importante | Moderadamente más importante | Bastante más importante | Mucho más importante | Extremadamente más importante | FACTOR COMPARADO 2   |
|  | 9                             | 7                    | 5                       | 3                            | 1                     | 3                            | 5                       | 7                    | 9                             |  |
| Comparaciones Relativas al factor: Gestión, evaluación y desarrollo de competencias y capacidades (CH01)<br>¿Qué factor influye más y en qué medida en la "gestión, evaluación y desarrollo de competencias y capacidades" para el desarrollo de capacidades ambidiestras en las organizaciones?                       |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |
| Planes de formación (CH05)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Promoción y movilidad interna (CH06)                             |
| Herramientas para compartir conocimiento entre personas (CR04)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Liderazgo que impulsa la calidad de las relaciones (CR05)        |
| Comparaciones Relativas al factor: Herramientas para Compartir Conocimientos Internos (CH02)<br>¿Qué factor influye más y en qué medida en "Herramientas para compartir conocimientos internos" para el desarrollo de capacidades ambidiestras en las organizaciones?  |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |
| Formas de trabajo y conocimiento explícito (CO04)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Herramientas para compartir conocimientos internos (CH02)        |
| Herramientas para compartir conocimiento entre personas (CR04)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Liderazgo que impulsa la calidad de las relaciones (CR05)        |
| Comparaciones Relativas al factor: Incorporar conocimiento externo (CH03)<br>¿Qué factor influye más y en qué medida en "Incorporar conocimiento externo" para el desarrollo de capacidades ambidiestras en las organizaciones?  |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |
| Herramientas para compartir conocimientos internos (CH02)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Incorporar nuevo talento (CH04)                                  |
| Alianzas y colaboraciones con entidades externas (CR01)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Herramientas para compartir conocimiento entre personas (CR04)   |
| Comparaciones Relativas al factor: Incorporar nuevo talento (CH04)<br>¿Qué factor influye más y en qué medida en "Incorporar conocimiento externo" para el desarrollo de capacidades ambidiestras en las organizaciones?   |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |
| Herramientas para compartir conocimientos internos (CH02)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Incorporar conocimiento externo (CH03)                           |
| Comparaciones Relativas al factor: Planes de Formación (CH05)<br>¿Qué factor influye más y en qué medida en "planes de formación" para el desarrollo de capacidades ambidiestras en las organizaciones?  |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |
| Gestión, evaluación y desarrollo de competencias y capacidades (CH01)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Herramientas para compartir conocimientos internos (CH02)        |
| Gestión, evaluación y desarrollo de competencias y capacidades (CH01)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Promoción y movilidad interna (CH06)                             |
| Herramientas para compartir conocimientos internos (CH02)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Promoción y movilidad interna (CH06)                             |
| Comparaciones Relativas al factor: Promoción y movilidad interna (CH06)<br>¿Qué factor influye más y en qué medida en "promoción y movilidad interna" para el desarrollo de capacidades ambidiestras en las organizaciones?  |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |
| Gestión, evaluación y desarrollo de competencias y capacidades (CH01)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Planes de formación (CH05)                                       |
| Comparaciones Relativas al factor: Conocimiento estratégico y crítico (CO01)<br>¿Qué factor influye más y en qué medida en "Conocimiento estratégico y crítico" para el desarrollo de capacidades ambidiestras en las organizaciones?  |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |
| Seguridad de la información y protección del conocimiento (CO08)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Sistema Integrado de Gestión (CO09)                              |
| Alianzas y colaboraciones con entidades externas (CR01)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Herramientas para compartir conocimiento entre personas (CR04)   |
| Comparaciones Relativas al factor: Diseño Organizativo (CO2)<br>¿Qué factor influye más y en qué medida en "Diseño Organizativo" para el desarrollo de capacidades ambidiestras en las organizaciones?   |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |
| Procesos y procedimientos (CO07)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Sistema Integrado de Gestión (CO09)                              |
| Comparaciones Relativas al factor: ERPs, CRMs y Sistemas de Información (CO03)<br>¿Qué factor influye más y en qué medida en "ERPs, CRMs y Sistemas de Información" para el desarrollo de capacidades ambidiestras en las organizaciones?  |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |
| Diseño organizativo (CO02)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Procesos y procedimientos (CO07)                                 |
| Diseño organizativo (CO02)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Seguridad de la información y protección del conocimiento (CO08) |
| Diseño organizativo (CO02)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Sistema Integrado de Gestión (CO09)                              |

| FACTORES CLAVE DEL CAPITAL INTELLECTUAL QUE INFLUYEN EN EL DESARROLLO DE CAPACIDADES AMBIDIESTRAS EN TU ORGANIZACIÓN.<br>Las preguntas buscan conocer tu percepción sobre la influencia de los distintos factores del Capital Intelectual identificados en el desarrollo de capacidades ambidiestras en tu organización |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |  |
|---|-------------------------------|----------------------|-------------------------|------------------------------|-----------------------|------------------------------|-------------------------|----------------------|-------------------------------|--|--|
| FACTOR COMPARADO 1  | Extremadamente más importante | Mucho más importante | Bastante más importante | Moderadamente más importante | Igualmente importante | Moderadamente más importante | Bastante más importante | Mucho más importante | Extremadamente más importante | FACTOR COMPARADO 2   |  |
|   | 9                             | 7                    | 5                       | 3                            | 1                     | 3                            | 5                       | 7                    | 9                             |  |  |
| Procesos y procedimientos (CO07)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Seguridad de la información y protección del conocimiento (CO08)     |  |
| Procesos y procedimientos (CO07)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Sistema Integrado de Gestión (CO09)                                  |  |
| Seguridad de la información y protección del conocimiento (CO08)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Sistema Integrado de Gestión (CO09)                                  |  |
| Comparaciones Relativas al factor: Formas de trabajo y conocimiento explícito (CO04)<br>¿Qué factor influye más y en qué medida en "Formas de trabajo y conocimiento explícito" para el desarrollo de capacidades ambidiestras en las organizaciones?   |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |  |
| Cultura que promueve relaciones colaborativas (CR02)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Liderazgo que impulsa la calidad de las relaciones (CR05)            |  |
| Cultura que promueve relaciones colaborativas (CR02)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Mecanismos de gestión para la participación y el alineamiento (CR06) |  |
| Liderazgo que impulsa la calidad de las relaciones (CR05)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Mecanismos de gestión para la participación y el alineamiento (CR06) |  |
| Comparaciones Relativas al factor: Gestión de riesgos y compliance (CO05)<br>¿Qué factor influye más y en qué medida en "Gestión de riesgos y compliance" para el desarrollo de capacidades ambidiestras en las organizaciones?   |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |  |
| Seguridad de la información y protección del conocimiento (CO08)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Sistema Integrado de Gestión (CO09)                                  |  |
| Comparaciones Relativas al factor: Herramientas digitales para la gestión del conocimiento (CO06)<br>¿Qué factor influye más y en qué medida en "Herramientas digitales para la gestión del conocimiento" para el desarrollo de capacidades ambidiestras en las organizaciones?   |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |  |
| Seguridad de la información y protección del conocimiento (CO08)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Transferencia y difusión del conocimiento (CO10)                     |  |
| Comparaciones Relativas al factor: Procesos y procedimientos (CO07)<br>¿Qué factor influye más y en qué medida en "Procesos y procedimientos" para el desarrollo de capacidades ambidiestras en las organizaciones?   |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |  |
| Diseño organizativo (CO02)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | ERPs, CRMs y Sistemas de Información (CO03)                          |  |
| Diseño organizativo (CO02)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Sistema Integrado de Gestión (CO09)                                  |  |
| ERPs, CRMs y Sistemas de Información (CO03)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Sistema Integrado de Gestión (CO09)                                  |  |
| Comparaciones Relativas al factor: Seguridad de la información y protección del conocimiento (CO08)<br>¿Qué factor influye más y en qué medida en "seguridad de la información y protección del conocimiento" para el desarrollo de capacidades ambidiestras en las organizaciones?                                     |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |  |
| Conocimiento estratégico y crítico (CO01)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | ERPs, CRMs y Sistemas de Información (CO03)                          |  |
| Conocimiento estratégico y crítico (CO01)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Gestión de riesgos y compliance (CO05)                               |  |
| Conocimiento estratégico y crítico (CO01)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Herramientas digitales para la gestión del conocimiento (CO06)       |  |
| ERPs, CRMs y Sistemas de Información (CO03)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Gestión de riesgos y compliance (CO05)                               |  |
| ERPs, CRMs y Sistemas de Información (CO03)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Herramientas digitales para la gestión del conocimiento (CO06)       |  |
| Gestión de riesgos y compliance (CO05)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Herramientas digitales para la gestión del conocimiento (CO06)       |  |
| Comparaciones Relativas al factor: Sistema integrado de gestión (CO09)<br>¿Qué factor influye más y en qué medida en "sistema integrado de gestión" para el desarrollo de capacidades ambidiestras en las organizaciones?   |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |  |
| Conocimiento estratégico y crítico (CO01)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Gestión de riesgos y compliance (CO05)                               |  |
| Conocimiento estratégico y crítico (CO01)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Procesos y procedimientos (CO07)                                     |  |
| Gestión de riesgos y compliance (CO05)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Procesos y procedimientos (CO07)                                     |  |
| Comparaciones Relativas al factor: Transferencia y difusión de conocimiento (CO10)<br>¿Qué factor influye más y en qué medida en "Transferencia y difusión del conocimiento" para el desarrollo de capacidades ambidiestras en las organizaciones?  |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |  |
| Formas de trabajo y conocimiento explícito (CO04)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Herramientas digitales para la gestión del conocimiento (CO06)       |  |
| Comparaciones Relativas al factor: Alianzas y colaboraciones con entidades externas (CR01)<br>¿Qué factor influye más y en qué medida en alianzas y colaboraciones con entidades externas" para el desarrollo de capacidades ambidiestras en las organizaciones?  |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |  |

| FACTORES CLAVE DEL CAPITAL INTELLECTUAL QUE INFLUYEN EN EL DESARROLLO DE CAPACIDADES AMBIDIESTRAS EN TU ORGANIZACIÓN.<br>Las preguntas buscan conocer tu percepción sobre la influencia de los distintos factores del Capital Intelectual identificados en el desarrollo de capacidades ambidiestras en tu organización |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |  |
|---|-------------------------------|----------------------|-------------------------|------------------------------|-----------------------|------------------------------|-------------------------|----------------------|-------------------------------|--|--|
| FACTOR COMPARADO 1  | Extremadamente más importante | Mucho más importante | Bastante más importante | Moderadamente más importante | Igualmente importante | Moderadamente más importante | Bastante más importante | Mucho más importante | Extremadamente más importante | FACTOR COMPARADO 2   |  |
|   | 9                             | 7                    | 5                       | 3                            | 1                     | 3                            | 5                       | 7                    | 9                             |  |  |
| Cultura que promueve relaciones colaborativas (CR02)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Herramientas para compartir conocimiento entre personas (CR04)         |  |
| Comparaciones Relativas al factor: Cultura que promueve relaciones colaborativas (CR02)<br>¿Qué factor influye más y en qué medida en "cultura que promueve relaciones colaborativas" para el desarrollo de capacidades ambidiestras en las organizaciones?   |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |  |
| Entorno inclusivo y diverso (CR03)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Liderazgo que impulsa la calidad de las relaciones (CR05)              |  |
| Entorno inclusivo y diverso (CR03)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Mecanismos de gestión para la participación y el alineamiento (CR06)   |  |
| Entorno inclusivo y diverso (CR03)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Participación y cocreación en procesos de ideación e innovación (CR07) |  |
| Liderazgo que impulsa la calidad de las relaciones (CR05)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Mecanismos de gestión para la participación y el alineamiento (CR06)   |  |
| Liderazgo que impulsa la calidad de las relaciones (CR05)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Participación y cocreación en procesos de ideación e innovación (CR07) |  |
| Mecanismos de gestión para la participación y el alineamiento (CR06)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Participación y cocreación en procesos de ideación e innovación (CR07) |  |
| Comparaciones Relativas al factor: Entorno inclusivo y diverso (CR03)<br>¿Qué factor influye más y en qué medida en "entorno inclusivo y diverso" para el desarrollo de capacidades ambidiestras en las organizaciones?   |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |  |
| Cultura que promueve relaciones colaborativas (CR02)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Herramientas para compartir conocimiento entre personas (CR04)         |  |
| Cultura que promueve relaciones colaborativas (CR02)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Liderazgo que impulsa la calidad de las relaciones (CR05)              |  |
| Cultura que promueve relaciones colaborativas (CR02)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Mecanismos de gestión para la participación y el alineamiento (CR06)   |  |
| Cultura que promueve relaciones colaborativas (CR02)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Participación y cocreación en procesos de ideación e innovación (CR07) |  |
| Herramientas para compartir conocimiento entre personas (CR04)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Liderazgo que impulsa la calidad de las relaciones (CR05)              |  |
| Herramientas para compartir conocimiento entre personas (CR04)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Mecanismos de gestión para la participación y el alineamiento (CR06)   |  |
| Herramientas para compartir conocimiento entre personas (CR04)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Participación y cocreación en procesos de ideación e innovación (CR07) |  |
| Liderazgo que impulsa la calidad de las relaciones (CR05)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Mecanismos de gestión para la participación y el alineamiento (CR06)   |  |
| Liderazgo que impulsa la calidad de las relaciones (CR05)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Participación y cocreación en procesos de ideación e innovación (CR07) |  |
| Mecanismos de gestión para la participación y el alineamiento (CR06)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Participación y cocreación en procesos de ideación e innovación (CR07) |  |
| Comparaciones Relativas al factor: Herramientas para compartir conocimientos entre personas (CR04)<br>¿Qué factor influye más y en qué medida en "herramientas para compartir conocimientos entre personas" para el desarrollo de capacidades ambidiestras en las organizaciones?                                       |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |  |
| Cultura que promueve relaciones colaborativas (CR02)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Liderazgo que impulsa la calidad de las relaciones (CR05)              |  |
| Comparaciones Relativas al factor: Liderazgo que impulsa la calidad de las relaciones (CR05)<br>¿Qué factor influye más y en qué medida en "liderazgo que impulsa la calidad de las relaciones" para el desarrollo de capacidades ambidiestras en las organizaciones?   |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |  |
| Cultura que promueve relaciones colaborativas (CR02)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Entorno inclusivo y diverso (CR03)                                     |  |
| Cultura que promueve relaciones colaborativas (CR02)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Mecanismos de gestión para la participación y el alineamiento (CR06)   |  |
| Cultura que promueve relaciones colaborativas (CR02)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Participación y cocreación en procesos de ideación e innovación (CR07) |  |

| FACTORES CLAVE DEL CAPITAL INTELECTUAL QUE INFLUYEN EN EL DESARROLLO DE CAPACIDADES AMBIDIESTRAS EN TU ORGANIZACIÓN.<br>Las preguntas buscan conocer tu percepción sobre la influencia de los distintos factores del Capital Intelectual identificados en el desarrollo de capacidades ambidiestras en tu organización |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |  |
|--|-------------------------------|----------------------|-------------------------|------------------------------|-----------------------|------------------------------|-------------------------|----------------------|-------------------------------|--|--|
| FACTOR COMPARADO 1   | Extremadamente más importante | Mucho más importante | Bastante más importante | Moderadamente más importante | Igualmente importante | Moderadamente más importante | Bastante más importante | Mucho más importante | Extremadamente más importante | FACTOR COMPARADO 2   |  |
|  | 9                             | 7                    | 5                       | 3                            | 1                     | 3                            | 5                       | 7                    | 9                             |  |  |
| Entorno inclusivo y diverso (CR03)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Mecanismos de gestión para la participación y el alineamiento (CR06)   |  |
| Entorno inclusivo y diverso (CR03)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Participación y cocreación en procesos de ideación e innovación (CR07) |  |
| Mecanismos de gestión para la participación y el alineamiento (CR06)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Participación y cocreación en procesos de ideación e innovación (CR07) |  |
| Comparaciones Relativas al factor: Mecanismos de gestión para la participación y el alineamiento (CR06)<br>¿Qué factor influye más y en qué medida en "mecanismos de gestión para la participación y el alineamiento" para el desarrollo de capacidades ambidiestras en las organizaciones?                            |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |  |
| Cultura que promueve relaciones colaborativas (CR02)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Entorno inclusivo y diverso (CR03)                                     |  |
| Cultura que promueve relaciones colaborativas (CR02)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Liderazgo que impulsa la calidad de las relaciones (CR05)              |  |
| Cultura que promueve relaciones colaborativas (CR02)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Participación y cocreación en procesos de ideación e innovación (CR07) |  |
| Entorno inclusivo y diverso (CR03)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Liderazgo que impulsa la calidad de las relaciones (CR05)              |  |
| Entorno inclusivo y diverso (CR03)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Participación y cocreación en procesos de ideación e innovación (CR07) |  |
| Liderazgo que impulsa la calidad de las relaciones (CR05)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Participación y cocreación en procesos de ideación e innovación (CR07) |  |
| Comparaciones Relativas al factor: Participación y cocreación en procesos de ideación e innovación (CR07)<br>¿Qué factor influye más y en qué medida en "participación y cocreación en procesos de ideación e innovación" para el desarrollo de capacidades ambidiestras en las organizaciones?                        |                               |                      |                         |                              |                       |                              |                         |                      |                               |  |  |
| Cultura que promueve relaciones colaborativas (CR02)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Entorno inclusivo y diverso (CR03)                                     |  |
| Cultura que promueve relaciones colaborativas (CR02)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Herramientas para compartir conocimiento entre personas (CR04)         |  |
| Cultura que promueve relaciones colaborativas (CR02)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Liderazgo que impulsa la calidad de las relaciones (CR05)              |  |
| Cultura que promueve relaciones colaborativas (CR02)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Mecanismos de gestión para la participación y el alineamiento (CR06)   |  |
| Entorno inclusivo y diverso (CR03)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Herramientas para compartir conocimiento entre personas (CR04)         |  |
| Entorno inclusivo y diverso (CR03)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Liderazgo que impulsa la calidad de las relaciones (CR05)              |  |
| Entorno inclusivo y diverso (CR03)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Mecanismos de gestión para la participación y el alineamiento (CR06)   |  |
| Herramientas para compartir conocimiento entre personas (CR04)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Liderazgo que impulsa la calidad de las relaciones (CR05)              |  |
| Herramientas para compartir conocimiento entre personas (CR04)   |                               |                      |                         |                              |                       |                              |                         |                      |                               | Mecanismos de gestión para la participación y el alineamiento (CR06)   |  |
| Liderazgo que impulsa la calidad de las relaciones (CR05)  |                               |                      |                         |                              |                       |                              |                         |                      |                               | Mecanismos de gestión para la participación y el alineamiento (CR06)   |  |

## Appendix B: Detailed Thematic Analysis results (Themes and sub-themes, definitions and references) – Human Capital

| Themes and Subthemes   | Definition   | References |
|--|--|------------|
| <b>Human Capital: Thematic analysis in the EFQM Memories</b>                             |  | <b>261</b> |
| <b>Management, assessment, and development of competencies and capabilities – (CH01)</b> | Refers to management practices aimed at establishing systems for the assessment and development of competencies. These include evaluation processes, in some cases incorporating prior self-assessment or 180- and 360-degree feedback, as well as development conversations or links to capability development processes. | 57         |
| Agile capacity building  | It refers to practices of organizations to promote the development of agile methodologies and tools, and transfer that knowledge and skills to people.   | 2          |
| Digital capacity building  | It refers to programs and initiatives designed to enhance the digital skills of the organization's personnel, aligning with its digital transformation processes.  | 15         |
| Development of creativity and innovation capacities                                      | It refers to programs and initiatives that allow people to participate in ideation/creativity programs that develop these capacities.  | 15         |
| Leadership Development   | It refers to programs developed by organizations to improve leadership competencies and capabilities among management teams and middle management. Programs develop different types of capacities linked to their role   | 26         |
| Required professional profiles and competencies  | Competency models and the competency requirements associated with specific jobs. It mentions planning exercises and skills development needs.  | 22         |
| Individual Development Plans   | Personalization of the professional development of employees derived from evaluation processes. In some cases, it mentions 70/20/10 models, which place a  | 20         |

| Themes and Subthemes                                     | Definition   | References |
|--|--|------------|
|  | significant emphasis on developing human capital through on-the-job learning. In other cases, support is mentioned, such as coaching or participation in corporate development programs.   |            |
| Collective development programmes                        | High-potential groups are identified, and capacity-building programs are implemented specifically for these groups.  | 9          |
| <b>Tools for internal knowledge sharing (CH02)</b>       | Refers to initiatives designed to share internal organizational knowledge among employees in order to develop human capital. Structured around the concept of knowledge management, these initiatives encompass the development of digital tools, mechanisms, forums, and spaces that facilitate knowledge sharing.  | 51         |
| <b>Acquisition of external knowledge (CH03)</b>          | Participation in conferences, best practice forums, and professional networks is an opportunity for learning and capability development. It refers to the development of human capital through the acquisition of new external knowledge by engaging in forums, initiatives, or programs with external institutions. | 26         |
| <b>Attraction and incorporation of new talent (CH04)</b> | Refers to organizational recruitment, selection, and hiring processes aimed at incorporating new talent. It includes the importance placed on aspects such as cultural fit and the competency requirements defined for different roles.  | 35         |
| <b>Training and development plans (CH05)</b>             | Refers to the widespread practice of designing and implementing annual training plans that address employees' development needs. It encompasses a wide range of content and topics, with a focus on training activities as a key mechanism for human capital development.  | 59         |
| Professional Accreditations                              | It also includes initiatives to provide regulated training access for the organisation's professionals. It refers to the effort to accredit and professionally validate the training received, thereby reinforcing its value and the employability of professionals.   | 13         |
| Training needs analysis                                  | Linked to training planning - Top-down approach. The planning process is integrated into the training plans.   | 9          |
| Continuous learning and training                         | It refers to the concept of continuous training, in which organizations continually develop their human capacities   | 35         |

| Themes and Subthemes                      | Definition   | References |
|---|--|------------|
|   | through training. It incorporates concepts such as Corporate University.   |            |
| Coaching and mentoring                    | Use of coaching and mentoring tools in training and capacity-building processes  | 14         |
| E-Learning and digital platforms training | It refers to the use of digital tools for training. Content platforms aimed at training or enabling people to develop their own content to enhance their skills.   | 27         |
| Training structure and resources          | References to organisational structures aimed at managing and promoting training, as well as the provision of resources. It incorporates external partners that reinforce the organization's capacity to develop training content. | 22         |
| Technical skills training                 | References to training initiatives that promote the development of technical skills and knowledge of the organisation's activity.  | 11         |
| Soft skills training                      | Training programs are designed to develop soft skills. The references linked to well-being programs are interesting.   | 7          |
| Internal Training                         | Promotion of cultural aspects, training in values... It refers to practices that promote training using internal trainers. It reinforces a sense of belonging and develops human capital.  | 15         |
| Innovation in training                    | References to the incorporation of innovative methods, tools, or approaches to training processes. Above all, through digitalization.  | 9          |
| Measuring the impact of training          | It refers to organizations' efforts to measure the impact of training, the transfer to the job, and the effectiveness of the training effort.  | 20         |
| Onboarding and onboarding plans           | References to incorporating training into reception plans.   | 8          |
| Long-term training plans                  | Strategic. Multi-year training plan initiatives with a sense of long-term capacity development. It incorporates the concept of a training itinerary.   | 4          |

| Themes and Subthemes                          | Definition  | References |
|---|---|------------|
| Reskilling and Upskilling                     | Concepts associated with the development of digital skills.   | 3          |
| <b>Internal promotion and mobility (CH06)</b> | Refers to organizational practices that promote vertical promotion and horizontal mobility across different positions, contributing to capability development. It includes references to “job posting” practices aimed at increasing transparency in internal mobility processes. | 17         |
| Versatility                                   | It refers to structured practices of internal change that optimize and make more efficient the organization's needs in relation to people, while also offering professional development and human capital for them.   | 10         |

| Themes and Subthemes  | Definition   | References |
|---|--|------------|
| <b>Human Capital: strengths thematic analysis in assessment reports</b> |  | 77         |
| <b>Organizational well-being</b>  | The concept refers to initiatives by organizations to implement health plans and workplace wellness programs, create ad hoc "happiness" structures, and achieve a balance between personal and professional life, all aimed at improving the work environment. All this reinforces the attraction and loyalty of talent by boosting human capital. | 13         |
| Work-life balance and flexibility                                       | Practices that promote work-life balance and flexibility measures. Incorporated into welfare policies.   | 6          |
| <b>Training and capacity building</b>                                   | Identified strengths related to the effort to train and educate the organization's human capital. It is proposed that training plans, organizational training structures, increased training hours, or investment in training be considered.   | 42         |
| Coaching, mentoring, and soft skills development                        | Use of coaching as a tool for professional and HC development.   | 7          |
| Digital capacity building   | Development of digital capabilities in conjunction with digital transformation processes. Development programs in tools.   | 4          |

| Themes and Subthemes                   | Definition  | References |
|--|---|------------|
| Capacity development change management | Practices for developing the mindset and capacities to manage change and transformation. It is relevant since in changing environments, this capacity is a fundamental element of human capital.  | 5          |
| Capacity building innovation           | Development of creativity, ideation, and innovation capacities, either through specific training in this field or through participation in ideation and innovation initiatives.   | 4          |
| Leadership Capacity Building           | Programs and initiatives that are linked to the development of leadership capacity, typically within the management framework of a leadership model defined as aligned with the organization's identity and evaluated using multi-source tools. Here, the development of this capacity is referenced as a relevant element of HC. | 17         |
| Developing high-potential talent       | Structured initiatives for identifying and developing internal talent through specific programs.  | 2          |
| Onboarding training                    | Initiatives related to training in the processes of entry into the organization, aimed at accelerating understanding of the organization's culture and the new person's performance.  | 2          |
| Internal Training                      | Practices aimed at leveraging internal human capital to train other professionals within the organization through structured programs that promote this approach. This fact enhances the organization's overall human capital and reinforces the profile of experts who train their colleagues.                                   | 6          |
| Competency Framework                   | Existence of dictionaries or frameworks of technical, managerial, and skills competencies that guide the development of capacities and, therefore, the Organization's human capital in line with its needs.   | 9          |
| Learning Opportunities                 | Outstanding strengths that reflect an organization's effort to promote spaces for continuous learning among its professionals. Not exclusively through formal training but within the framework of day-to-day work, creating a culture that promotes continuous learning,   | 16         |

| Themes and Subthemes                     | Definition  | References |
|--|---|------------|
| Participation and ideation               | Organizational practices to promote participation in ideation, innovation, and volunteering processes. It is a tool for learning and developing human capital through participation.  | 5          |
| Individual Development Plans             | Individualized or personalized development approaches as a product of performance evaluation processes. It allows development through open approaches rather than being limited to formal training.   | 7          |
| Versatility and internal mobility        | Development of versatility and internal mobility as tools to strengthen the organisation's human capital and its own flexibility and adaptability.  | 6          |
| <b>People Management Systems</b>         | Systematization of People management through models, systems, and end-to-end integrated People processes. They promote the development of Human Capital. Training would be part of these systems, but given its relevance, I leave it as a separate code at the same level as this one.                           | 22         |
| Recruitment, identification, and loyalty | People management practices focused on attracting and selecting the best talent, as well as building their loyalty. It reflects organizations' interest in positioning themselves as excellent employers, enabling them to replenish their flow of human capital, develop it, and, as far as possible, retain it. | 17         |
| Culture and values in People processes   | Integrating the organization's cultural aspects and values into people management processes, such as training. It reinforces the company culture and aligns human capital with the organization's identity principles.  | 9          |
| Diversity and inclusion                  | Diversity and inclusion practices.  | 2          |
| Listen to employees                      | Practices to systematize listening to employees.  | 3          |
| Job stability                            | Practices to promote job stability as an element of loyalty within the framework of quality employment. Capitalize on investment in human capital development   | 3          |
| Risk Management in HR                    | Incorporate risk management into the People function by conducting risk identification linked to succession plans and a lack of motivation. It can be interesting from the perspective  | 1          |

| Themes and Subthemes                | Definition   | References |
|-------------------------------------|--|------------|
|                                     | of the intellectual capital and knowledge required by the organization for its ambidextrous capacity.  |            |
| Performance Management              | Implementation of performance management systems, focusing on the alignment of objectives, the evaluation of achievements, and, above all, their use as a tool for professional development. From that perspective, it is worth promoting human capital. | 17         |
| Remuneration and benefits policy    | Refers to strengths associated with performance-based compensation practices and the achievement of objectives, particularly variable remuneration policies designed to recognize and reward goal attainment.  | 6          |
| Internal promotion and career plans | Internal mobility and promotion practices that enable the development of an organization's human capital by allowing professionals to access different positions, which is also a benefit for them.  | 8          |
| Information and knowledge systems   | Information systems that reinforce the implementation of People and knowledge management processes.  | 8          |

| Themes and Subthemes   | Definition  | References |
|--|---|------------|
| <b>Human Capital: areas of improvement in assessment reports</b> |   | 109        |
| <b>Benchmarking in People Management</b>                         | Develop benchmarking initiatives to enhance people management by identifying best practices in other organizations.   | 2          |
| <b>Wellness, health, and absenteeism</b>                         | Improvement initiatives focused on enhancing health and comprehensive well-being, and on implementing measures to mitigate increases in absenteeism in organizations.                               | 9          |
| <b>Listening employees to</b>                                    | Improvements linked to the processes of listening to People, frequency, segmentation, and response to identified needs. In short, to reinforce the approaches of listening and closeness to people. | 17         |

| Themes and Subthemes                               | Definition  | References |
|--|---|------------|
| Internal communication                             | It refers to the importance of enhancing internal communication tools to foster dialogue with employees and reinforce cultural alignment.   | 4          |
| Employee Experience                                | It refers to comments expressed as opportunities for improvement to incorporate approaches to managing the global employee experience based on "moments of truth" or journey maps, which identify key points for improvement and support the development of capabilities and human capital. | 8          |
| <b>Leadership Evaluation and Impact</b>            | It refers to opportunities for improvement related to strengthening the evaluation and impact of leadership and its effectiveness. To have tools that allow us to measure this impact and, where appropriate, improve it.   | 14         |
| <b>Performance Management</b>                      | It refers to opportunities for improvement linked to the improvement of performance management, either in terms of its extension of staff, its approach, continuity in development conversations or the requirement in the setting of objectives to be challenging.                         | 22         |
| Competency-based management                        | Improvements linked to the organisation's competence models are again in terms of their scope and extension, their level of updating, and their impact on people's development. Usually linked to performance management.   | 7          |
| <b>Talent Identification and Development</b>       | It refers to the identified need to enhance the identification and internal development systems within organizations, particularly those that will eventually fill key positions. Mechanisms for identifying and evaluating talent and its development.                                     | 10         |
| Skills development, transformation, and innovation | Need to develop more widespread capabilities in the organization linked to change management and innovation.  | 16         |
| Digital Capability Development                     | It refers to the need to continually strengthen the workforce's digital capabilities to effectively respond to the challenges of digital transformation.  | 7          |

| Themes and Subthemes                   | Definition   | References |
|--|--|------------|
| Talent loyalty                         | It refers to the need to develop people policies: remuneration, development, motivation, and career that reinforce the loyalty of key talent in order to maintain and develop human capital. Reinforce the value proposition to the employee as the key to attracting and retaining talent and, therefore, human capital.            | 10         |
| Succession management of key positions | Identified issue linked to the preservation of key knowledge. It appears repeatedly in organizations, particularly in the retirement processes of key personnel. It refers to a more systematic approach to succession and the identification of internal talent with succession processes. Link talent development with succession. | 16         |
| Improve HR SSII                        | Promote the digitalisation of talent management and development processes. It is the means to know the human capital available in the organization.  | 2          |
| Internal mobility and versatility      | It refers to the need to improve internal mobility and promotion processes by clarifying selection criteria, establishing more structured promotion mechanisms, extending the possibility of doing so to more areas of the workforce...  | 8          |
| Career Plans                           | It refers to the need to systematize career plans that extend beyond training, seeking a stimulus for development and clear, objective criteria to manage them properly.   | 7          |
| Diverse talent                         | It refers to strengthening DEI policies to promote greater diversity of talent, thereby strengthening the organization's human capital.  | 4          |
| Impact of training                     | It refers to strengthening systems for measuring the impact and effectiveness of training in terms of business results, competency development, and capacity building.   | 12         |
| Accessibility to training              | It refers to the relevance of extending training access to the entire employee group as a means of growing the organization's human capital.   | 3          |
| Updating training content              | It refers to the need to update training content and methodologies to align with the current workforce needs.  | 2          |

| Themes and Subthemes                                    | Definition  | References |
|---|---|------------|
| Personalization of training and development             | It refers to personalizing training and development processes as an opportunity to improve their impact.  | 4          |
| <b>Promotion of the desired culture and recognition</b> | It refers to the need to improve and enhance the recognition systems of both economic and non-economic organizations, clearly linking them to elements such as performance and the organization's values. In a way, it refers to the need to reinforce and recognize the behaviors we want to promote, such as developing human capital and building loyalty. | 23         |
| Ethical commitment and living corporate values          | Initiatives aimed at reinforcing compliance with desired behaviors, promoting ethics and integrity and reinforcing aspects of regulatory compliance as a key element of human capital in organizations today.   | 4          |

## Appendix C: Detailed Thematic Analysis results (Themes and sub-themes, definitions and references) – Organizational Capital

| Themes and Subthemes  | Definition   | References |
|---|--|------------|
| <b>Organizational Capital: Thematic Analysis in EFQM Memories</b> |  | 296        |
| <b>Strategic and critical knowledge (CO01)</b>                    | Refers to organizational practices aimed at documenting strategic knowledge, including strategic plans and contextual analyses, as a way of codifying and preserving the organization’s critical knowledge.  | 18         |
| Balanced scorecard  | It refers to practices that develop the availability of a balanced or strategic scorecard, which brings together the main indicators that measure an organization's performance. Interesting from the perspective of organizational capital because of what it implies of explicit knowledge of the organization as a lever for measurement and improvement. | 30         |
| Leadership model  | It refers to the explicit documentation of the leadership model as a mechanism for aligning the entire organization.   | 3          |
| Outsourcing   | Outsourcing, as a means of improving productivity and efficiency, poses the challenge of managing the knowledge of outsourced processes and their relevance.   | 1          |
| Technology transfer   | Reference to the mechanism of technology and knowledge transfer as a development of the organization's value proposition. To share and transfer knowledge through methodologies developed for this purpose.  | 1          |
| <b>Organizational Design (CO02)</b>                               | Refers to organizational design in terms of roles and job positions as mechanisms to foster knowledge specialization and to make explicit the knowledge and competency requirements associated with each role.   | 17         |
| <b>ERPs, CRMs, and information systems (CO03)</b>                 | Refers to implementing information systems, such as ERP and CRM platforms, to centralize and digitize knowledge and manage operational and support processes, ensuring the effective management of data and information critical to organizational operations.   | 54         |

| Themes and Subthemes                                       | Definition  | References |
|--|---|------------|
| <b>Ways of working and explicit knowledge (CO04)</b>       | Refers to the implementation of work methodologies that promote collaboration and continuous improvement in order to generate new knowledge. This includes approaches such as Lean, Kaizen, multidisciplinary teams, and agile methodologies.   | 26         |
| Internal learning networks                                 | Systematic initiatives that promote knowledge sharing and the creation of internal learning networks.   | 10         |
| <b>Risk management and compliance (CO05)</b>               | Documented risk management and compliance practices that structure organizational knowledge from a preventive and anticipatory perspective, developing internal control mechanisms to mitigate identified risks.  | 20         |
| Code of ethics   | Documented codes of ethics that explicitly establish the behaviors required in the organization, linked to compliance policies  | 5          |
| <b>Digital tools for knowledge management (CO06)</b>       | Refers to the implementation of digital tools that enable organizational members to access relevant information and organizational knowledge.   | 28         |
| Digitized document management                              | Management systems and digitized processes/procedures that facilitate accessibility and transparency. Tools such as intranets and SharePoint enable agile access to the organization's standardized documents and operational information.  | 46         |
| Digital tools for collaboration with external stakeholders | In this case, these types of tools have interfaces with external stakeholders, either customers or suppliers, to promote the generation of new knowledge.   | 4          |
| Predictive Models and AI                                   | Software and mechanisms for the management of predictive models that allow inferring future results from the behavior of different variables. Incorporating AI and data management tools to develop predictive models. Knowledge through the learning of cause and effect and the correlation of variables. | 7          |
| Collaborative software and teamwork                        | It refers to the use of collaborative digital platforms, such as Teams, Yammer, or Slack, to promote collaboration and generate new ideas and organisations.  | 20         |

| Themes and Subthemes  | Definition   | References |
|---|--|------------|
| Technology Watch for innovation                             | It refers to management practices and tools that allow the incorporation of trends and externally captured knowledge such as attendance at fairs or benchmarking.  | 2          |
| Patents and Intellectual Property                           | It refers to the practices organizations use to formally protect the knowledge they generate and the mechanisms they employ to do so.  | 16         |
| <b>Information security and knowledge protection (CO08)</b> | Refers to the documentation of processes, procedures, and technical guidelines. Organizational document management systems that make organizational knowledge explicit and enable its standardization.   | 35         |
| <b>Integrated Management System (CO09)</b>                  | It refers to the development of integrated management systems that include documented processes that establish the organization's operating standards. Process mapping, documented processes, and system integration are key elements of the same.   | 63         |
| Project Management  | Documentation and learning in Project Management. It refers to structured practices that emphasize the systematic documentation of projects and the identification of lessons learned, thereby increasing the Organization's organizational capital. | 13         |
| Quality Manual  | Express mention of the Quality Manual in some organizations that refer to the way they document their integrated management system.  | 9          |
| Process Map   | Approach to a process management system based on the process map. It reinforces the organization's value proposition to the customer. A highly developed organization incorporates strategic, operational, and support processes.                    | 59         |
| <b>Processes and procedures (CO07)</b>                      | References to documentation of processes, procedures, and technical sheets. Document management of the organization that allows the knowledge of the organization to be made explicit and standardized.  | 15         |
| BPMs and process automation                                 | To document processes. The digitalization of processes, which incorporates technology as a key element, also makes the organization's knowledge explicit.  | 10         |

| Themes and Subthemes                               | Definition   | References |
|--|--|------------|
| Process and procedure documentation                | It refers to the practices organizations use to manage their document processes and procedures. A lot of emphasis on developing document management platforms and updating them as the heart of organizational capital. Relevance of its accessibility   | 64         |
| Operational manuals for internal training          | It refers to initiatives aimed at training employees in the organization's standards through operational manuals or training activities that transfer the manuals' content to employees. Training approach   | 12         |
| Onboarding welcome manuals                         | Usefulness of knowledge to improve the processes of incorporation of new employees through the use of reception manuals aimed at their training.   | 9          |
| ISO certified systems                              | It refers to the development of ISO quality, environmental, health, and safety, cybersecurity, and other systems aimed at ensuring assurance, standardization, and incorporation of material requirements into organizations. Develop organizational capacity  | 39         |
| Internal and external verification and audits      | It refers to systematized practices for conducting documented internal and external audits to verify the effectiveness of management processes and systems. It enables the identification of deviations and opportunities for improvement, serving as a tool for generating organizational capital and fostering learning. | 28         |
| <b>Knowledge transfer and dissemination (CO10)</b> | It refers to initiatives and practices to transfer and disseminate the organization's knowledge through publications, manuals of good practices, or other tools that allow the dissemination and sharing of organizational capital.  | 19         |

| Themes and Subthemes  | Definition   | References |
|---|--|------------|
| <b>Organizational Capital: Strengths analysis in assessment reports</b> |  | 142        |
| <b>Information and data analysis</b>                                    | It refers to the strengths identified in having data management systems and infrastructures (BI), dashboards, and management KPIs that enable monitoring the | 14         |

| Themes and Subthemes                              | Definition  | References |
|---|---|------------|
|   | organization's operation and measuring its performance to generate new knowledge.   |            |
| Predictive Capability                             | It refers to some evidence of the development of predictive tools based on data and historical variables that allow extrapolating future results and managing future scenarios to better adjust strategies and plans.   | 4          |
| Balanced scorecard                                | It refers to dashboards that enable the monitoring of an organization's performance. It introduces the concept of balanced scorecard, referring to its structuring by key issues.   | 10         |
| Management and economic control reports           | It refers to strengths linked to robust economic and financial systems, based on standards and supported by information systems that enable organizational governance.  | 8          |
| Data-driven organization                          | It refers to the strengths of advanced "data-driven" organizations that develop tools such as data governance offices to ensure data quality and reinforce the value of data as key elements of the current management of organizations.  | 2          |
| <b>Digitalization of management and knowledge</b> | It refers to initiatives to digitize the management of organizations through various tools, which are strengths, but all aim to achieve substantial improvements in functioning and internal efficiency, as well as in the way knowledge is made explicit, collected, and shared within the organization. | 24         |
| Digitalization of processes                       | It refers to strengths enabled by digitalization, including the automation of processes to improve efficiency and operations.   | 12         |
| Collaborative digital tools                       | Refers to the implementation of collaborative software solutions that strengthen knowledge management processes, including platforms such as Microsoft 365, Moodle, business intelligence systems, intranets providing access to key documentation, and proprietary digital platforms.                    | 5          |
| CRM Information Systems                           | ERP<br>References to the use of business information systems, such as ERPs and CRMs, that enhance operational management and control.   | 20         |

| Themes and Subthemes                          | Definition   | References |
|---|--|------------|
| <b>Risk Management</b>                        | It refers to risk management systems implemented in organizations as strengths that enable the structuring of risk identification and response measures, thereby enhancing operational effectiveness.  | 19         |
| Documented Code of Ethics                     | It refers to the code of ethics as an organization's document that outlines its principles of behavior and values, as well as relevant compliance requirements.  | 1          |
| Intellectual property protection              | It refers to the mechanisms organizations use to protect their intellectual capital and trademarks through property registrations, patents, and similar measures.  | 3          |
| Information Security and Cybersecurity        | It refers to the practices organizations implement to secure information and mitigate the risk of cyberattacks. Many of them are supported by the implementation of standards such as ISO 27001.   | 8          |
| <b>Knowledge management and dissemination</b> | It refers to organizations that have approaches and tools for managing, and especially disseminating, the knowledge they possess. Digital tools, process documentation... Both for the organization's employees and for its external stakeholders, for whom it establishes dissemination and communication tools.                        | 19         |
| Strategic Surveillance and Consulting         | It refers to the structured practices of organizations to develop strategic and technological surveillance systems that enable them to acquire new, relevant knowledge and anticipate trends that may be important to their transformation and innovation processes.   | 3          |
| <b>Processes, projects, and standards</b>     | It refers to highlighted aspects as strengths, linked to a solid process management framework based on a process map that identifies, documents, and develops these processes, offering a robust management framework that supports the proper functioning of the organization. It also refers to the structuring of project management. | 28         |
| Standardized document management              | It refers to the existence of systematic practices for standardized document management of the organization's normative documents, allowing for controlled access, management, and continuous updating.  | 21         |

| Themes and Subthemes                | Definition   | References |
|-------------------------------------|--|------------|
| Innovation Models and Processes     | He refers to the development of innovation models and processes that capture new knowledge and drive the creation of new products and services.  | 5          |
| PMO Project Office                  | It refers to the systematization of project management within PMO-type organizational units that adhere to project management standards and enable strategic project governance.   | 4          |
| Formalized strategic plan           | It refers to practices that reinforce strategic processes, formalizing plans and their analysis, and prior reflection. And how they are subsequently deployed in the annual management plans.  | 4          |
| <b>Integrated management system</b> | It reinforces as a strong point the existence of integrated management systems supported by standardized external references that allow for robust management based on organizational capital, ensuring the quality of operations and the efficiency and effectiveness of management as well as quality. | 38         |
| ISO Certified Standards             | It reinforces the existence of ISO standards within organizations, which provide different benchmarks, allowing for standardization and management improvement by incorporating benchmarks tailored to each organization's nature.   | 21         |
| Quality Assurance System            | It refers to management system practices focused on Quality.   | 5          |

| Themes and Subthemes  | Definition   | References |
|---|--|------------|
| <b>Organizational Capital: opportunities for improvement analysis in assessment reports</b> |  | 137        |
| <b>Innovation Management</b>  | It refers to the opportunity to establish more structured innovation models and processes within organizations, from technology surveillance to the organization and prioritization of project efforts for the development of new products and services. | 15         |

| Themes and Subthemes                               | Definition  | References |
|--|---|------------|
| <b>Risk Management</b>                             | It refers to opportunities to deepen risk management by extending it to more comprehensive areas, including strategic, reputational, and external risks.  | 22         |
| Security and information security                  | Strengthen cybersecurity and information security by strengthening management systems. Proposals around ISO 27001.  | 13         |
| Strengthen good governance, compliance, and ethics | It refers to identified opportunities for improvement related to ethical behaviour, knowledge of the code of ethics, compliance systems, etc.   | 5          |
| <b>Change Management and Transformation</b>        | It refers to the need to better structure the change management process, including identifying stages, establishing monitoring mechanisms, and setting indicators to measure effectiveness.   | 13         |
| New ways of working                                | It refers to the opportunity to implement or extend new ways of working linked to transformation and agility processes: Lean, Kanban, Scrum...  | 12         |
| Strategic Plan and Strategic Monitoring            | References to improvements identified with the strategic plan, either in terms of its transformative capacity and the impact of its execution, communication, and the extent to which the message gets through. It also incorporates elements related to the need | 9          |
| <b>Knowledge management</b>                        | Opportunities identified include further systematizing knowledge management, leveraging digital tools, structuring existing knowledge, and disseminating it.  | 23         |
| Accessibility to information                       | It refers to improving the accessibility of information and knowledge, as well as to developing digital tools to support this. Paperless.   | 8          |
| Updating and renewing knowledge                    | It refers to the need to incorporate and update new knowledge through documenting and updating procedures and manuals.  | 6          |
| Lessons learned                                    | Integrate the systematic lessons learned into the organization's knowledge management.  | 2          |

| Themes and Subthemes                               | Definition  | References |
|--|---|------------|
| Protect knowledge                                  | It refers to the need to enhance the protection of knowledge through intellectual property rights and to anticipate processes of knowledge replacement or abandonment within the organization, ensuring that knowledge is not lost.                               | 5          |
| <b>Improvement in the management of indicators</b> | It refers to the management of the measurement element, the updating of indicators, the selection of strategic indicators, and their digitization, all aimed at improving their usefulness and effectiveness.   | 20         |
| Data analysis                                      | Reinforcement of advanced analytics for decision-making. It refers to the use of digital analytical tools that enable the analysis of greater volumes of data for informed decision-making.   | 12         |
| Benchmarking                                       | It refers to opportunities to further develop benchmarking as a tool for renewing and acquiring new external knowledge. It is informed by both data comparison and the systematic analysis of best practices in other organizations that excel in specific areas. | 8          |
| Predictive models                                  | It promotes the opportunity to deepen the development and refinement of data-driven predictive models, improving the ability to anticipate and respond to changing environments.  | 19         |
| <b>Process improvement and updating</b>            | The identified improvements mainly focused on enhancing management processes, including identifying and updating key processes, documentation, and measurement.   | 14         |
| Project Management                                 | References to the relevance that project management is taking, both in terms of capabilities and the integration of organizations' information systems.   | 2          |
| <b>Sustainability</b>                              | It refers to opportunities for improvement identified to enhance the organization's sustainability policies and practices to a greater extent and in a more integrated manner with the strategy.  | 12         |
| <b>Digital transformation</b>                      | It refers to the need to accelerate, complete, and extend organizations' digital transformation processes.  | 18         |

“Hard Systems, Soft Foundations”: How Human Resource Management and Intellectual Capital enable ambidexterity. An analysis based on the EFQM Model | Appendix C: Detailed Thematic Analysis results (Themes and sub-themes, definitions and references)  
– Organizational Capital

| Themes and Subthemes | Definition   | References |
|----------------------|--|------------|
| AI adoption          | Mentions of the adoption of AI in the framework of the digitalization of organizations (there is no talk of Gen AI yet). | 3          |

## Appendix D: Detailed Thematic Analysis results (Themes and sub-themes, definitions and references) – Relational Capital

| Themes and Subthemes  | Definition   | References |
|---|--|------------|
| <b>Relational Capital: Thematic Analysis in EFQM Memories</b>     |  | <b>325</b> |
| <b>Alliances and collaborations with external entities (CR01)</b> | Refers to organizational management practices aimed at establishing alliances and collaborations with external entities that strengthen external relational capital and enable the incorporation of new knowledge and learning.        | 86         |
| Benchmarking with external entities of the ecosystem              | It refers to structured practices within organizations to benchmark against external entities, either individually or within the framework of already formalized Benchmark processes. Share knowledge, good practices, and indicators. | 39         |
| Events open to third parties                                      | Events aimed at promoting collaboration with the ecosystem to share and develop new knowledge.   | 7          |
| Supplier and customer relations                                   | It refers to initiatives aimed at strengthening relationships with suppliers, enabling the development of the organization's relational capital by incorporating new knowledge.  | 12         |
| <b>Culture promoting collaborative relationships (CR02)</b>       | Refers to cultural practices that foster and develop collaborative relationships within the organization.  | 7          |
| Organizational well-being   | Although in a very partial way, the references to organizational well-being are interesting since they are linked to the creation of collaborative contexts. An effect, as well as a cause, of promoting collaborative environments.   | 2          |
| Channels and mechanisms for conflict mediation                    | It refers to formal channels established by organizations to process complaints, queries, or accusations, thereby anticipating them and minimizing their impact.   | 10         |

| Themes and Subthemes                               | Definition   | References |
|--|--|------------|
| Coaching and development of collaborative skills   | It refers to training practices and the development of the collaborative skills necessary to promote collaborative cultures.   | 5          |
| Communication and conflict management              | It refers to practices aimed at managing conflict in organizations through transparent communication and dialogue. Alignment with the organization's values is another important aspect.   | 37         |
| Collaborative workspaces                           | Specific but interesting references on how workspaces can influence the development of collaborative cultures.   | 2          |
| Participatory governance and management structures | It refers to governance and management structures that, by their very nature or configuration, promote participation among the organization's relevant stakeholders.   | 13         |
| Ethics and transparency                            | It refers to the ethical codes or ethics committees within organizations that aim to uphold the organization's values.   | 7          |
| Active listening tools to anticipate               | It refers to organizational practices that proactively capture the "voice of the employee" through surveys, pulse surveys, and focus groups. Anticipatory orientation to problems and conflicts, and development of a culture of active listening. | 43         |
| Promotion of collaborative culture                 | It refers to the cultural impulse of organizations to promote a collaborative culture. Tools such as internal communication, continuous listening, and referencing purpose and values help build this culture.                                     | 22         |
| New ways of working                                | It refers to the implementation of "new ways of working" to reinforce an orientation towards collaboration, participation and agility of people.   | 17         |
| Systematic meetings                                | It refers to the internal coordination mechanisms within organizations or meetings that channel internal relations in a structured way.  | 27         |
| <b>Inclusive and diverse environment (CR03)</b>    | Refers to management practices aimed at promoting diversity and inclusivity, largely linked to gender equality through equality plans and the inclusion of people with   | 75         |

| Themes and Subthemes                                     | Definition  | References |
|--|---|------------|
|  | disabilities. It places less emphasis on psychological safety.  |            |
| Participation in volunteer programs                      | Use of volunteer programs and initiatives to promote relational capital with positive impact.   | 6          |
| <b>Tools for interpersonal knowledge sharing (CR04)</b>  | Refers to management approaches and tools that promote and encourage knowledge sharing among individuals and teams within the organization.   | 12         |
| Improvement and troubleshooting teams                    | It refers to mechanisms and infrastructure established by organizations to promote continuous improvement and problem-solving through internal teams.   | 17         |
| Cross-cutting or multidisciplinary teams                 | It refers to transversal initiatives and structures (within the organization) or multidisciplinary (encompassing diverse professional profiles) developed by organizations to promote internal relations and the exchange of information and knowledge. | 20         |
| In-house training  | It refers to internal training practices that enable knowledge sharing through programs and initiatives within the organization, thereby enhancing relational capital.  | 39         |
| Collaborative digital tools                              | Incorporation of knowledge management tools. To study the typology of tools that promote collaborative environments. It refers to digital tools that promote collaboration between people and that share knowledge and information.                     | 57         |
| Mechanisms for sharing good practices                    | Open days, forums, and mechanisms for sharing best practices. These initiatives are designed by organizations to strengthen relational capital and foster learning.   | 16         |
| Transmission and dissemination of knowledge among people | Mechanisms for the transmission and dissemination of the organization's knowledge among people.   | 13         |

| Themes and Subthemes   | Definition   | References |
|--|--|------------|
| Verification and learning  | It mentions the mechanisms that promote learning in the organization, such as analysis of completed projects and results from verification processes through internal and external audits.   | 10         |
| <b>Leadership relationship (CR05)</b> fostering quality                          | Refers to how distributed and participative leadership can promote the development of relational capital, fostering a collaborative climate and mutual support among organizational members.   | 35         |
| <b>Management mechanisms participation and alignment (CR06)</b> for and          | Refers to the mechanisms, systems, and forums established by organizations to promote participation and alignment with strategy and objectives, from top management to operational levels  | 36         |
| <b>Participation and co-creation in ideation and innovation processes (CR07)</b> | Refers to practices aimed at stimulating and encouraging participation, particularly in ideation processes, to promote an innovative culture. A wide range of initiatives and approaches are used, all sharing the common objective of fostering ideation and participation. | 74         |
| Incentives and recognition of innovation   | It refers to practices that encourage or recognize people's contributions to promote innovation or ideation, thereby reinforcing that culture.   | 17         |
| Open innovation  | It refers to structured practices within organizations to develop open innovation models with external organizations outside their ecosystem to accelerate innovation. Technology centres, universities, start-ups...  | 25         |
| Intrapreneurship   | Initiatives that promote intrapreneurship, particularly in the early stages of ideation.   | 7          |

| Themes and Subthemes   | Definition   | References |
|--|--|------------|
| <b>Relational capital: strengths analysis in EFQM assessment reports</b> |  | 151        |
| <b>Participatory and collaborative culture</b>                           | It refers to identified strengths in cultures that promote collaboration and people's participation, thereby enhancing relational capital. Related to leadership models and cultural | 29         |

| Themes and Subthemes                       | Definition  | References |
|--|---|------------|
|  | aspects of the organization that translate into formalized practices.   |            |
| Deployment of culture and values           | It refers to practices aimed at consolidating the culture desired by organizations, deploying them through the associated values and behaviors and integrating them into People management processes such as communication or performance evaluation. It also refers to practices to align the workforce with the purpose as a facilitator of internal collaboration. | 6          |
| Spaces for participation and collaboration | In this case, the nuance is that there is room for formal and informal spaces for collaboration and participation in this issue. There is talk of “ad hoc” programs that promote participation, technological tools, listening tools, collaborative workspaces, meetings, and faculty...  | 25         |
| Formal relationship structures             | It refers to the formal structures created by organizations to promote collaboration and participation, including organizational designs, meetings, transversal committees, work teams, and various formalized mechanisms within the organization that enable collaboration between people. Also, references to new ways of working, such as agile methodologies...   | 35         |
| In-house trainers                          | Initiatives that promote training with internal trainers of the organization itself, encouraging participation in these initiatives, recognizing external knowledge and promoting its internal extension through these training activities.   | 3          |
| Participation in ideation and innovation   | It refers to organizations' efforts to stimulate and channel ideas, as well as to their people's participation in innovation and continuous improvement. It fosters an innovative culture, articulated through formalized programs that guide ideation and promote disruptive thinking.   | 34         |
| Participation in volunteering              | It refers to practices that promote employee volunteering within the context of the organization's own initiatives, thereby reinforcing relational capital and collaboration, with a focus on generating a positive impact.   | 7          |
| Conflict resolution                        | It refers to mechanisms and practices that organizations implement to manage and minimize internal conflicts. Mechanisms for action in cases of harassment, codes of  | 5          |

| Themes and Subthemes                    | Definition  | References |
|---|---|------------|
|   | ethics, mediation mechanisms, and, above all, cultures that promote transparency and in which dissent can be expressed in a way that can be managed.  |            |
| Technologies for collaboration          | It refers to technological tools implemented in organizations to strengthen collaboration, share knowledge, provide access to key information, and promote communication between people. Microsoft, with Engage Yammer, Google, and others, promotes collaboration.   | 12         |
| <b>Diversity and inclusion</b>          | It refers to organizations' DEI policies in general, which are more focused on developing diversity than on inclusion. Some references along these lines to aspects of disability. It also refers to the legal obligations of equality plans and LGBT+ plans. Relevance of onboarding processes for inclusion.                      | 25         |
| <b>Generating and sharing knowledge</b> | It refers to initiatives aimed at compiling knowledge and sharing it to also promote relational capital. Either through digital tools or through specific projects. It is very borderline with organizational capital practices.  | 8          |
| <b>Leadership Model</b>                 | It refers to practices aimed at deploying leadership models that promote participation and collaboration. Organizations are looking for a role model extended throughout the organization that allows generating a culture oriented to this issue   | 19         |
| Recognition                             | Organization-driven recognition initiatives that strengthen engagement and collaboration.   | 3          |
| <b>External collaboration networks</b>  | It refers to the strengths identified in organizations in terms of their external relational capital, achieved through collaboration networks with entities and organizations within their ecosystem, including partners, suppliers, customers, and associations, with an orientation towards proactive participation and learning. | 46         |
| Strategic alliances                     | It refers to the value of strategic alliances and their management as relevant elements to enhance external relational capital. In this case, they are usually based on strategic aspects of the organizations and have a greater relational commitment. Many of them are linked to elements of innovation and transformation.      | 15         |

| Themes and Subthemes   | Definition   | References |
|--|--|------------|
| External benchmarking culture                                  | It refers to the systematization of benchmarking practices by organizations with other entities to reinforce learning through sharing good practices. The concept of "double feedback" is interesting in that learning is bidirectional and therefore mutually beneficial.   | 15         |
| Open innovation  | It strengthens collaborations with external entities to drive innovation by developing the concept of open innovation across technology centres, universities, start-ups, and suppliers. It consists of structuring external collaboration to support the organization's innovation.   | 5          |
| <b>Active relationship with Stakeholders and the ecosystem</b> | It refers to the practices of organizations to involve and relate to their various stakeholders and other relevant agents within the ecosystem. EFQM Accounting, as one of the criteria, is a systematic management approach that aims to develop tools to collect their needs and expectations, establish a dialogue, and build an active relationship with them. | 24         |
| Internal and external communication                            | It refers to internal and external communication practices designed to strengthen relationships with various stakeholders, particularly employees. In a way, it is used as a tool to ensure the organization's key messages are conveyed and to generate dialogue. Also references to external communication.  | 15         |
| Listen to Employees  | It refers to mechanisms for listening to employees to identify needs and expectations.   | 3          |
| Customer Relations   | Referring to the structuring of the relationship between organizations and their customers, their segmentation, the mechanisms for collecting needs and expectations and for responding, and tools such as CRM that allow for the digitization and personalization of the relationship.  | 17         |
| Relationship with Advice and Property                          | Relationship with GI Ownership/Board of Directors.   | 1          |
| Relationship with suppliers and partners                       | Relationships with GI suppliers, approval processes, and establishing close relationships with them.   | 3          |

| Themes and Subthemes                     | Definition   | References |
|--|--|------------|
| Relationship with regulators and society | It refers to the mechanisms for structuring the relationship with society/institutions and regulators. | 10         |

| Themes and Subthemes   | Definition   | References |
|--|--|------------|
| <b>Relational Capital: Improvement Opportunities analysis in EFQM assessment reports</b> |  | <b>120</b> |
| <b>Cross-Sectional and Vertical Collaboration</b>  | It refers to opportunities for improvement that strengthen communication and interdepartmental collaboration, thereby enhancing the flow of information and knowledge and reinforcing the culture of collaboration. It also facilitates the exchange of information and knowledge between different hierarchical levels. Break down silos.             | 16         |
| Conflict management  | It refers to the need to establish more robust mechanisms to manage the conflict and anticipate its escalation. In order to promote collaboration.   | 8          |
| <b>Culture and values</b>  | It reinforces the importance of addressing cultural aspects by clearly defining the behaviors associated with values, measuring the gap between the desired and actual cultures, and identifying cultural elements that promote collaboration and active participation among people. Reinforce a culture of non-penalization and psychological safety. | 14         |
| Leadership   | Improving leadership involves formalizing the leadership model, harmonizing it across organizational leaders, evaluating its effectiveness, providing leaders with feedback to improve, and consolidating it.  | 9          |
| Recognition  | It refers to establishing formalized mechanisms of recognition that reinforce and give visibility to the aspects of culture intended for consolidation.  | 5          |
| <b>Diversity and inclusion</b>   | It refers to opportunities to strengthen DEI approaches, give them greater internal visibility, communicate them more explicitly, establish indicators to measure the impact of these policies, and reinforce the inclusion of underrepresented  | 14         |

| Themes and Subthemes  | Definition  | References |
|---|---|------------|
|   | groups in areas or bodies of management and governance within the organization.   |            |
| <b>Listening to employees and other stakeholders</b>          | It refers to opportunities to improve tools and approaches for listening to employees and other relevant stakeholders. Aspects of content to ask about, cadences of the surveys to make them more continuous, and the possibility of extending structured and formal listening to other stakeholders are discussed.   | 23         |
| Internal and external communication                           | It is proposed to reinforce and improve internal and external communication to increase its effectiveness and impact on People and other GGIs. Incorporate new (digital) channels and improve workers' perception of key aspects of management  | 13         |
| Customer Experience   | It refers to deepening customer experience approaches to better understand their needs and expectations and provide more effective responses.   | 5          |
| Involve stakeholders in strategy                              | It refers to the opportunity to involve key stakeholders, especially employees, in strategic reflection and the review of identity elements such as purpose or values in a more direct and structured way, with the aim of increasing their sense of ownership and fostering involvement.   | 17         |
| <b>Change transformation management and</b>                   | It refers to the need to strengthen relational capacities in change management, promote greater participation by people and other GIS in these initiatives, and implement systems that enable transformation processes.   | 11         |
| <b>Participation in ideation and innovation processes and</b> | It refers to the opportunity to improve the processes of employee participation in ideation and innovation, either by formalizing the approaches and making them more structured, or by extending their use to the entire workforce and especially the basic and operational staff, or by establishing mechanisms of recognition or promotion that allow them to consolidate culturally. Culture of psychological safety. | 27         |
| <b>Promote collaboration with other organizations</b>         | It refers to opportunities for improvement identified in relation to the margins of organizations to strengthen their external collaboration networks as a means of strengthening their relational capital, opening up to new organizations,  | 15         |

| Themes and Subthemes                           | Definition   | References |
|--|--|------------|
|  | analyzing their map of relationships, and formally structuring relationships beyond the personal relationships of some of their managers...  |            |
| Structuring external learning and benchmarking | It refers to strengthening benchmarking with other organizations as a learning tool by identifying best practices and comparing its own indicators with theirs. He also mentions the opportunity to better structure the learning from these benchmarking processes to integrate them. | 10         |
| Open innovation                                | It refers to strengthening open innovation processes with other agents in the innovation ecosystem, such as technology centers, start-ups, and universities, to strengthen innovation processes and capacities.  | 9          |
| External recognition                           | It refers to promoting recognition among relevant external stakeholders, thereby strengthening links with the ecosystem. Link recognition to aspects of self-purpose.  | 3          |
| Deep customer relationships                    | It refers to seeking relationships that go beyond the commercial transaction of the moment with relevant customers, enabling deeper engagement in co-creation and strategy, and the possibility of building more lasting, participatory relationships.                                 | 1          |
| Value of strategic alliances                   | It refers to the need to establish mechanisms to measure the impact of alliances with external GIs.  | 6          |

## Appendix E: Detailed Thematic Analysis results (Themes and sub-themes, definitions and references) – HR practices

| Themes and Subthemes   |  | Definition  | References |
|--|--|---|------------|
| <b>Human Resource Management practices: Thematic analysis in EFQM Memories</b> |  |   | <b>633</b> |
| <b>Organizational well-being</b>   |  | It refers to management practices oriented to the emerging concept of organizational well-being. Almost all of them are evolutions of health programs that integrate the psychosocial perspective. In some cases, the concept of happiness appears.           | 19         |
| Work-life balance  |  | It refers to management practices to promote conciliation and flexibility measures beyond legal requirements. In some cases, within the framework of the EFR management system. Also linked to equality or benefits policies.                                 | 29         |
| Job stability  |  | The organization's commitment to workforce stability is closely tied to fulfilling its purpose and vision.  | 1          |
| Volunteer participation  |  | Initiatives that promote employee participation in volunteer programs. Alignment with values and reinforcement of aspects of purpose.   | 5          |
| Health and safety  |  | It refers to the management practices of organizations aimed at preventing occupational risks from a safety perspective. There are many references to the ISO 45000 management standards and the elements required by the regulation.                         | 64         |
| <b>Recruitment and selection</b>   |  | It refers to the processes that organizations have in place to select new personnel. A lot of emphasis is placed on elements such as equal opportunities, merit, transparency, competency analysis, and alignment with the organization's values and culture. | 84         |
| On boarding  |  | It refers to the systematic processes of welcome, especially with the provision of welcome and welcome manuals to help new hires understand the organisation and facilitate their cultural integration.   | 41         |

| Themes and Subthemes  | Definition   | References |
|---|--|------------|
| Internship programs for young talent                                  | It refers to job placement through internship formats for university students or vocational training, dual training or other formulas that allow the incorporation of young talent into the organization.  | 9          |
| <b>Role clarity and organizational design</b>                         | It refers to people management practices that aim to describe the functions and competence requirements of positions and professional profiles. It is proposed as a tool to improve organizational design, role clarity, transparency, and talent planning.  | 23         |
| <b>Internal Communication</b>   | References to internal communication practices to reinforce a sense of belonging, internal cohesion, and employee participation.   | 11         |
| Practices to promote collaboration and participation                  | It refers to the practices of organizations that encourage and promote people's participation and collaboration.   | 43         |
| <b>Definition and development of the Leadership model and leaders</b> | Leadership models are defined by organizations to develop their purpose and culture. Many references to leadership capacity development programs are according to these models. Differences exist between organizations that align with hierarchical criteria and those that advocate for more open leadership models. | 87         |
| Leadership Measurement and Evaluation 360                             | It refers to management practices used to evaluate leadership effectiveness. There are mentions of 360 evaluations, employee perception surveys, and other tools to assess leadership effectiveness in areas such as communication skills, motivation, and team development.   | 36         |
| Participation in decisions and empowerment                            | Management initiatives that develop informal leadership capacities by distributing participation in sessions on strategy, communication, and problem-solving relevant to their activity.   | 8          |
| External Leader Engagement and Impact                                 | It refers to the participation of the organization's leaders in external networks. I have incorporated it as a reference to the usefulness of this format for developing leadership capacity, but only with an entry.  | 1          |

| Themes and Subthemes                                 | Definition   | References |
|--|--|------------|
| Leadership Development Programs                      | Leadership training programs and initiatives for managers at different levels that reinforce the relevance of developing this skill.   | 22         |
| <b>Digitalization of people management processes</b> | It refers to organizations' management practices that rely on technology to address People management processes. From general-purpose tools for the management of People processes, such as SFSF, to other tools to digitally solve certain processes. | 31         |
| <b>Diversity, Inclusion &amp; Equality</b>           | Very focused on the existence of the equality plan (legal requirement) and less on practices to promote an inclusive culture in the organization.  | 81         |
| <b>Employee Experience</b>                           | Practices that develop the concept of employee experience in the different phases of the employee life cycle.  | 5          |
| Offboarding exit interviews                          | Structured exit interview practices.   | 3          |
| <b>Training and Development of People</b>            | The training and development process for individuals is typically structured around annual cycles, involving identifying needs, planning, executing, and evaluating the training's impact.   | 112        |
| Coaching and skills development                      | The development of skills, especially leadership skills, was facilitated through coaching.   | 6          |
| Training impact measurement                          | It refers to practices related to measuring the impact or effectiveness of training, closely tied to ISO standards. Fundamentally linked to perception indicators.   | 12         |
| Participation in expert forums                       | Professional development and learning through participation in external forums are not directly considered as regulated training. Interesting from a learning perspective. Only one reference, although in a relational capacity, it comes out a lot.  | 1          |
| High-potential future talent programs                | Group programs are designed to develop future talent. Usually linked to large organizations.   | 4          |

| Themes and Subthemes                     | Definition   | References |
|--|--|------------|
| Internal promotion and versatility       | Internal mobility and versatility as mechanisms for organisational flexibility, and at the same time for the development of workers. Structured through mechanisms such as job posting, publication of vacancies, succession plans...  | 91         |
| <b>Performance and talent management</b> | It refers to structured processes for managing and evaluating performance and talent. It refers to both individual and organizational objectives and to talent assessment tools using a competency model. In several cases, they begin with self-evaluation.                               | 81         |
| Feedback and development conversations   | References that mention the scheduled development conversations linked to performance evaluation processes. Interesting because it incorporates the part most linked to the role of the leader as a developer of his team and gives relevance to the process of development conversations. | 5          |
| Competency model                         | It refers to the use of competency models linked to roles and jobs to provide greater clarity on competency requirements and establish the differences between what is required and what exists, guiding the development of people.  | 25         |
| Career Plans and High Potential          | Management practices linked to talent identification to promote development and internal careers. In some cases, they incorporate the concept of high potentials with "ad hoc" identification programs.  | 8          |
| Individual Development Plans             | It refers to management practices aimed at developing individual development plans, mostly based on 70/20/10 models, with a strong focus on on-the-job learning. Processes linked to and derived from performance evaluation.  | 15         |
| Strategic Talent Planning                | A relevant issue but that is only referred to in an organization. I have linked it to this code as it refers to talent management. It refers to the anticipation and response to the risk of imbalances.   | 1          |
| Talent succession processes              | It refers to people management practices aimed at planning talent succession processes fundamentally for intergenerational reasons.  | 10         |

| Themes and Subthemes                       | Definition   | References |
|--|--|------------|
| <b>Human Resources Strategic Framework</b> | It refers to the practices of organizations to elevate the policies and processes of People to a strategic level, either by integrating them with each other, by elevating them to strategic plans, or by making these policies part of the organization's strategy. They expressly elevate practices to a strategic role.                                       | 15         |
| Flexibility and adaptability               | Mention of the creation of a liquid and flexible organization from the management of People  | 1          |
| <b>Climate measurement and engagement</b>  | It refers to structured listening tools, such as surveys (usually conducted on an annual cycle), or market standards, including GPTW, or ad hoc designs. The objective of these is to identify areas for improvement   | 22         |
| <b>Recognition</b>                         | It refers to initiatives, management practices, and policies that promote formal and informal recognition in different formats. It reinforces celebration, behaviors, and initiatives that promote the values or purpose of organizations.   | 62         |
| Compensation and Benefits                  | Code that refers to compensation, remuneration, and benefits management practices in organizations. The vast majority allude to the existence of variable compensation linked to achievement and remuneration models that exceed the applicable collective agreements. There is limited transparency regarding pay and the development of remuneration policies. | 48         |

| Themes and Subthemes   | Definition   | References |
|--|--|------------|
| <b>Human Resource Management practices: Strengths analysis in assessment reports</b> |  | <b>335</b> |
| <b>Organizational well-being</b>   | It refers to initiatives that promote organisational well-being and health, extending beyond the legal aspects contemplated in risk prevention and pursuing a broader objective. | 16         |
| Work-life balance  | It refers to initiatives by organizations to promote work/life balance, flexibility, and other aspects that reinforce the well-  | 21         |

| Themes and Subthemes                              | Definition  | References |
|---|---|------------|
|   | being axis. They also appear related to DEI. Several references to EFR establish an interesting link between EFQM and EFR.  |            |
| Occupational Safety and Risk Prevention           | References to management practices to reinforce risk prevention and occupational safety, some of them supported by systems certified as ISO 45000. References to psychosocial risk appear.  | 21         |
| <b>Compensation and Benefits</b>                  | It refers to good practices identified in terms of remuneration, compensation, and benefits, especially practices to improve collective bargaining agreements or that establish variable remuneration linked to relevant objective criteria, such as target systems                                     | 17         |
| <b>Company Culture and Values in HR processes</b> | Reinforce the approaches that promote the development of the organization's values and their associated behaviors, and their deployment through the People management processes, thereby reinforcing the organization's culture.  | 38         |
| Pride of belonging                                | Evidence suggests that organizations can develop a sense of pride through participation and shared values.  | 6          |
| <b>Active Listening and Dialogue with People</b>  | It includes organizations' practices for active listening and for collecting employees' voices, such as surveys, pulse checks, focus groups, and dialogue spaces with management. Aimed at collecting needs and expectations, and being able to activate improvement plans.                             | 23         |
| Internal communication                            | It refers to practices that promote internal communication to reinforce dialogue within the organization and cultural aspects. It is articulated around the concept of an internal communication plan and also develops the different channels used, both digital and direct contact, for this purpose. | 8          |
| Social peace and labor relations                  | It refers to the efforts of the organizations to preserve social peace, dialogue with the Legal Representation of workers and to preserve quality employment even in complex circumstances such as Covid.   | 6          |
| <b>Training and capacity building</b>             | It reinforces the strong point that organizations dedicate resources and structured approaches to the continuous training and capacity development of their people.   | 62         |

| Themes and Subthemes                         | Definition  | References |
|--|---|------------|
| Development of digital skills                | References are a key strength of promoting training programs to develop digital competencies within organizations.  | 10         |
| In-house training                            | It reinforces organizations' efforts to promote approaches that develop and recognize internal trainers, as well as training based on internal trainers who share their knowledge within the organization's program framework.  | 9          |
| Knowledge management and dissemination       | It refers to good knowledge management practices that allow the development of people's capacities through their dissemination.   | 10         |
| Impact and Return of Training                | Positive references to the impact of training on employee satisfaction with the training received, or for having systems in place to assess the impact of training.   | 2          |
| Innovative methodologies for training        | It refers to reinforcing the implementation of training processes through innovative methodologies, especially those with a technological or digital component, as a key strength.  | 11         |
| <b>People Management Measurement</b>         | It refers to practices aimed at developing dashboards that allow for measuring and evaluating, over time, the management of People with different perceptions and performance indicators relevant to accountability and for the continuous improvement of the function.   | 4          |
| <b>Leadership Model and Its Development</b>  | It is often considered a strong point in developing leadership models and in their evolution to shape the desired culture within the organization. Development of specific programs for their development and models oriented to the structure of managers, but also in many cases, promoting informal leadership                                   | 75         |
| <b>Comprehensive Talent Management Model</b> | It refers to the strengths of organizations that have comprehensive approaches to People management, whether for the evolution and modernization of the function, for having developed complete People processes, or for having strategic People plans or policies in this area. It therefore refers to a comprehensive model of People Management. | 37         |

| Themes and Subthemes                                | Definition  | References |
|---|---|------------|
| Welcoming new talent and integration. On boarding   | It refers to good practices for the reception and integration of new talent. It incorporates initial training, welcome documents prepared ad hoc, tutorials or mentoring to reinforce accompaniment...  | 14         |
| Recruitment and selection                           | He refers to strengths as the structuring of processes for attracting, recruiting, and selecting new talent for the organization. They highlight precisely the standardization and measurement of the process's effectiveness, as well as its ability to attract top talent.                        | 13         |
| Talent development , high potential, and succession | It refers to initiatives by organizations to identify high-potential individuals and develop them through targeted programs, establish succession plans, and ensure the availability of talent to fill key positions.   | 11         |
| Job and Role Descriptions                           | It refers to organizations that have developed job definitions with functions and responsibilities that help clarify the role and lay the foundations for the organizational design, thereby developing the rest of the People processes.   | 7          |
| Employee Experience and Talent Retention            | It refers to organizations' practices to foster loyalty among their people, incorporate employee experience practices, and participate in employer brand recognition programs, such as GPTW.  | 13         |
| Competency-based management                         | He refers to outstanding evidence as the strengths of organizations that have developed competency models, allowing them to plan their talent needs and guide the selection or development of people.   | 14         |
| Performance management and evaluation               | It refers to evidence collected as strengths through the deployment of management and performance evaluation processes, which usually incorporate a link to the company's objectives and also involve development. More emphasis on the formality of the process than on development conversations. | 40         |
| Internal promotion                                  | It refers to good practices to promote internal promotion and versatility as tools to retain talent, offer development  | 24         |

| Themes and Subthemes                                | Definition   | References |
|---|--|------------|
| and versatility                                     | opportunities and be more flexible to the operational requirements of the organization.  |            |
| SSIs and HR Management Technology                   | It refers to implementing HR information systems to digitize people processes and improve their robustness and consistency.  | 11         |
| <b>Promote employee participation in management</b> | It refers to the strengths of organizations that promote active participation by people in innovation, ideation, strategy development, and new ways of working, all of which enhance a culture of participation and collaboration.   | 39         |
| DEI Diversity & Inclusion                           | It refers to practices to promote diversity and inclusion in organizations. There are quite a few references to equality plans (a legal requirement), but, above all, the allusions to the integration of people with disabilities, with very remarkable good practices in the data set analysed, are interesting. | 34         |
| Internal drive for change and transformation        | It refers to practices that promote change and foster a culture of openness to change through internal change ambassadors, as well as the identification of profiles more prone to mobilization.   | 6          |
| Volunteer programs                                  | Participation in volunteer programs through initiatives promoted by the organization   | 3          |
| <b>Recognition</b>                                  | It refers to the strengths of organizations in managing recognition, particularly social recognition. It also has an indirect link with compensation, although in this area the culture of recognition is further reinforced through initiatives such as awards...   | 24         |

| Themes and Subthemes   | Definition | References |
|--|------------|------------|
| <b>Human Resources Management practices: Opportunities for improvement analysis in EFQM assessment reports</b> |            | <b>272</b> |

| Themes and Subthemes                         | Definition  | References |
|--|---|------------|
| <b>Organizational well-being</b>             | It refers to the need to integrate aspects of organizational well-being into People policies amid changes in the work environment.  | 1          |
| Work-life balance and balance                | Opportunities identified online to improve, structure, and systematize work-life balance policies.  | 8          |
| Occupational safety and risk prevention      | It refers to opportunities for improvement identified to reduce accident rates and to continue strengthening preventive policies to minimize the risk of accidents or occupational diseases.  | 9          |
| Work overload as a risk                      | It refers to opportunities identified to better manage workloads or overloads in organizations that may incur health risks. Organisational aspect of the distribution of work.  | 7          |
| <b>Diversity &amp; Inclusion</b>             | It refers to improvements identified to strengthen diversity and inclusion policies, including reinforcing the representation of different groups within the company, promoting equal opportunities, and incorporating diversity into the organization through participation. | 18         |
| Boosting creativity and innovation           | It refers to the need to promote and systematize mechanisms for people's participation in processes of generating ideas, creativity, and innovation. Linked to the creation of an innovative culture.   | 19         |
| Participation of people                      | Linked to processes of creativity and innovation. It refers to the need to promote mechanisms for people's participation in processes of ideation, strategic reflection, continuous improvement, and other related activities.  | 20         |
| <b>Structuring and extending Recognition</b> | It refers to opportunities for improvement identified in how to better structure recognition, establish more explicit policies, reinforce them, and communicate them with greater transparency so that they penetrate more deeply into the culture.                           | 45         |
| Rewards and compensation                     | References relating to improvements in remuneration policy, competitiveness of remuneration in certain groups, extension of variable remuneration, progress in remuneration transparency, etc.  | 5          |

| Themes and Subthemes                                     | Definition  | References |
|--|---|------------|
| <b>Training and empowerment of people</b>                | It refers to opportunities to strengthen the approaches to training, development, and People. Either through planning, strengthening impact, developing certain groups of professionals...  | 14         |
| Digitalization of training                               | Promote the digitalization of training to extend its reach to all people in the organization, to raise the digital capabilities of the people in the organization.  | 4          |
| Measuring training impact                                | It refers to opportunities identified to improve the systematic measurement of the impact of training on people's competencies and on organizational performance ratios.  | 11         |
| <b>Change and transformation management</b>              | Opportunities for improvement linked to structuring change and transformation management processes in their relationship with People management. Anticipating possible risks of resistance, improving communication, accompaniment...   | 10         |
| Long-Term HR Planning                                    | Develop practices to determine future professional profiles and the skills required for long-term personnel planning.   | 4          |
| <b>Identification and development of internal talent</b> |   | 8          |
| Internal mobility and career development                 | Career plan. It refers to opportunities for improvement identified to advance the development of structured internal mobility or professional career plans within the organization.   | 22         |
| Succession of key talent                                 | It refers to the need to develop structured succession plans and systems to identify and develop internal talent in the face of risks arising from talent gaps in key positions within organizations, especially due to retirements.  | 19         |
| <b>Improve Listening and Dialogue with Employees</b>     | It refers to improvements identified in the processes of listening to employees' needs and expectations through formal mechanisms, such as surveys or pulse surveys. There are many references to improvements in participation, revising the cadences of "traditional" surveys to make them more continuous, improving segmentation, and reviewing the questions to focus them better... | 25         |

| Themes and Subthemes  | Definition  | References |
|---|---|------------|
| Internal communication  | It refers to opportunities to improve internal communication across different aspects of People management, both in terms of depth throughout the organization and clarity and transparency in relation to critical processes such as performance management or internal promotion.   | 17         |
| Engagement, commitment, motivation                            | It refers to comments focused on the need to improve people's engagement and motivation, driven by high absenteeism, voluntary turnover rates, or deviations from set objectives. To this end, changes and improvements are proposed on the People management processes.  | 18         |
| Employee Experience   |   | 14         |
| <b>Improve Performance Management</b>                         | It refers to opportunities for improvement identified in relation to the performance management process, from its initial start-up and formalization, where it does not exist, to its consolidation, where it is incipient or in need of improvement. A significant impact on the relevance of feedback and development conversations, as well as their simplification. | 36         |
| Assessment and development of competencies                    | It refers to improvements identified in relation to the organization's competency model: how to make it more useful, simpler, better aligned with the rest of the people management processes and especially in the talent evaluation processes.  | 8          |
| <b>Improve and Extend People Management and its Processes</b> | It refers to recommendations for extending people management policies and processes beyond their current implementation, typically for managerial, supervisory, or indirect personnel. It appears, particularly in relation to training processes and those of performance evaluation and management.   | 31         |
| Benchmarking  | As a way to learn and incorporate new knowledge. It refers to practices that promote benchmarking in people management issues, reinforcing the organization's knowledge and culture.  | 12         |
| Recruitment, recruitment, and selection                       | Improve selection processes to be more agile and effective simultaneously.  | 4          |

| Themes and Subthemes                                  | Definition   | References |
|---|--|------------|
| Job Descriptions                                      | It refers to defining clear functions to clarify each profile's contribution to the strategy.  | 3          |
| HR Digitalization                                     | It refers to opportunities to continue deepening the digitization of organizational people-management functions and processes, aiming to improve operational capacity and efficiency.  | 5          |
| Knowledge management                                  | It refers to practices for structuring and disseminating organizational capital, or the stock of explicit knowledge of the organization among employees.   | 8          |
| People Management Indicators                          | It refers to improvements identified in relation to the measurement of the People function and processes, highlighting the need for structured dashboards to measure People management, both in terms of perception and performance, its systematization, and its adequate extension.        | 17         |
| <b>Reinforce Culture and Desired Values</b>           | It refers to opportunities for improvement to better align people management processes with the desired culture and values, clearly define values and their associated behaviors, work on understanding the gap between the current culture and the desired culture.                         | 41         |
| Strengthen Compliance                                 | It refers to the need to reinforce knowledge and training on organizations' compliance requirements and codes of ethics. The need for training, communication, and mechanisms to foster a culture of compliance is raised.   | 7          |
| <b>Reinforce consolidate and the Leadership model</b> | It refers to the need to strengthen leadership, both in defining the leadership model for each organization and in consolidating it once defined. There are numerous references to the need to measure their effectiveness and develop leadership skills among the organization's leaders.   | 43         |
| 360 Leadership Assessment                             | It refers to the opportunity to evaluate leadership from a 360° perspective, allowing for a better and, above all, more comprehensive measurement of its effectiveness. It is also linked to performance management, but since it is a tool focused on leadership, I place it in this topic. | 10         |

## Appendix F: Detailed Thematic Analysis results (Themes and sub-themes, definitions and references) – How organizations implement ambidexterity

| Themes and Subthemes   | Definition  | References |
|--|---|------------|
| <b>Performance (exploitation) business practices: Thematic analysis in EFQM Memories</b> |   | <b>383</b> |
| <b>Analytics and data management</b>   | References to the relevance of data management and analysis for decision-making and ensuring operational efficiency. References to digitalization and the greater concern for data quality appear strongly.   | 55         |
| Indicators and Management Scorecard  | It refers to and deepens data-based management, mentioning the Balanced Scorecard and Key Indicators. Linked to the most relevant monitoring indicators linked to the organization's strategy and its systematic management.  | 37         |
| Ethical use of data  | Reference to the ethical use of data. Especially in organizations that handle sensitive data.   | 3          |
| <b>Management and financial control</b>  | It refers to the management practices implemented in EFQM organizations for economic and financial control, along with the tools used for this: budgeting, financial and cash management, the use of ERP tools and information systems for financial and economic control, cost analysis, and monitoring deviations. It reinforces the importance of economic control to ensure operational efficiency. | 57         |
| Capturing efficiencies   | Initiatives aimed at capturing efficiencies through cost optimization, economic control, and supplier negotiation...  | 4          |
| <b>Deploying Targets</b>   | Management practices that allow the strategy to be deployed in an annual cycle, with associated plans and subsequent monitoring carried out to manage deviations and ensure compliance.   | 7          |
| <b>Digitalization and automation for efficiency</b>                                      | Digitalization is focused on achieving operational efficiency. It mentions different types of tools. In some cases, the robotization or automation of processes stands out more for its   | 37         |

| Themes and Subthemes                              | Definition   | References |
|---|--|------------|
|   | direct focus on efficiency. In other cases, it refers to digitization of information systems.  |            |
| <b>Organizational structure</b>                   | Organisational structure as a mechanism to improve functioning by the distribution of functions, assignment of tasks, etc.   | 2          |
| <b>Process and process management</b>             | It refers to management practices that govern operations through standards or processes, often documented and structured using the process map tool. References more oriented to process management appear, mentioning the owners of the processes, their measurement, and the focus on continuous improvement.                              | 74         |
| Project Management                                | Project management mechanisms. Organisational projects focused on improving performance and productivity. In some cases, they have been elevated to strategic or to the configuration of project offices for coordination.   | 4          |
| Continuous improvement and opportunity management | Systematic continuous improvement linked to performance. This is the middle ground between the approach to meeting the standard of pure operation and exploration. Linked to the operation. Usually reflected as initiatives or projects. The concept of opportunity and its management, enabling one to take advantage of it, also emerges. | 18         |
| Lean Management                                   | References linked to the use of "lean management" tools for continuous improvement. In some cases, the techniques used within this management framework are mentioned. It is interesting to see it reflected in areas outside the manufacturing environment (for example, hospitals). Also linked to the redesign of processes.              | 5          |
| <b>Asset Maintenance &amp; Management</b>         | Management practice aimed at ensuring the correct operation of assets through preventive and corrective maintenance. In some cases, it incorporates predictive maintenance. It ensures operational efficiency by leveraging and effectively managing the organization's assets. Operational and economic approach.                           | 21         |
| <b>Integrated Management System</b>               | It refers to extended management practices in excellent EFQM organizations, integrated with quality, environmental, health, and safety systems... based on ISO standards and closely linked to the management of the processes that underpin them. They reflect the organisational know-how through the processes and                        | 42         |

| Themes and Subthemes                          | Definition   | References |
|---|--|------------|
|   | legal and referential requirements established by management standards. They are the backbone of operational management. Importance of the audit verification aspect   |            |
| ISO certified management systems              | References of management practices based on ISO certifications that help build the integrated management system. It basically builds from Quality and Environment and they develop others.   | 28         |
| Internal and external audits                  | It refers to management practices to strengthen transparency in economic management and in the management system and control of the same through internal and external audits.   | 7          |
| <b>Risk Management Systems</b>                | It refers to the widespread management practices in EFQM organizations that involve anticipatory risk management to ensure operational continuity. Many of them are based on standards such as COSO or ISO 3100. The link between business continuity management and crisis management approaches also becomes apparent. | 88         |
| Cybersecurity and information security        | Management practice aimed at protecting the risk of digital information security or cybersecurity. Closely linked to the ISO 27001 management standard. Related to risk management and increasingly relevant.  | 26         |
| Succession plan linked to business continuity | There is only one reference, but I think it is relevant to link the succession plan with business continuity. Therefore, it is understood as a measure of response to the risk of losing talent due to retirements or the organization's abandonment.  | 1          |

| Themes and Subthemes   | Definition   | References |
|--|--|------------|
| <b>Transformation (Exploration) business practices: Thematic analysis in EFQM Memories</b> |  | 298        |
| <b>Open culture promoting change and agility</b>   | References to aspects of culture, leadership, and values that enable the organization to simultaneously function and transform. Mention also of change management. | 35         |

| Themes and Subthemes                                | Definition  | References |
|---|---|------------|
| Support for employees and other stakeholders        | References to management practices aimed at accompanying people in the process of change. In my experience, it is a relevant topic, although it appears to be only partially developed.   | 2          |
| Capacity Building for Adaptation and Transformation | Practices aimed at reskilling people, especially in digital skills. There are some references to soft skills, but they are not so numerous.   | 19         |
| Initiatives that promote collaboration              | Tools, management practices, and initiatives that promote collaboration among people within the organization and with other organizations, with a focus on innovation, knowledge exchange, and other related areas.                               | 21         |
| Agile methodologies and new ways of working         | It refers to management practices, especially linked to agility (kanban, Scrum), and other new ways of working that seek agile cultures through ways of working   | 27         |
| Change management methodologies                     | Reference to the development of change management procedures. Although it appears only occasionally.  | 1          |
| Transformation of physical workspaces               | Only punctual references to the role of changing physical spaces as a tool to promote collaboration and learning.   | 4          |
| <b>Knowledge management</b>                         | It refers to the practices of organizations that explicitly manage their knowledge to reinforce learning processes.   | 23         |
| <b>Innovation</b>                                   | It refers to initiatives to systematically promote innovation in organizations. R+D+i structures appear as mechanisms for its promotion, as well as open innovation and ideation infrastructures. There are no references to scaling innovation.  | 50         |
| Technology Observatories                            | It refers to establishing management practices to conduct systematic technological surveillance, enabling the identification and anticipation of relevant trends and technological advances that can support the organization's innovative drive. | 15         |

| Themes and Subthemes                        | Definition  | References |
|---|---|------------|
| <b>Strategic Process and Strategic Plan</b> | It refers to strategic planning as a tool for promoting and guiding transformation and exploration. It provides the guidance that enables the possibility of initiating change.                         | 51         |
| Strategic alliances                         | Practices related to the management of strategic alliances to address innovation challenges and market demands.   | 9          |
| Benchmarking                                | Use of benchmarking as a tool for identifying good practices to inspire improvement and transformation processes.   | 4          |
| Inorganic growth                            | Acquisition of companies as a tool for growth and development.  | 2          |
| Ecosystem                                   | It refers to actions by organizations in which they analyze their ecosystems to identify trends and factors that may determine their adaptation and transformation needs. Linked to the strategic plan. | 5          |
| Organization governance and transformation  | It refers to the involvement of governing and management bodies in promoting transformation.  | 5          |
| EFQM model as the basis for transformation  | Results of the EFQM evaluation as input for developing transformation promotion plans.  | 2          |
| New business models                         | It refers to initiatives for evolution, change, and the development of new business models, typically incorporated into the deployment of the strategic plan.   | 15         |
| Strategic projects                          | Project management as a tool for transformation.  | 1          |
| <b>Sustainability</b>                       | It refers to initiatives to strengthen sustainability, especially environmental, but also social, as a mechanism for innovation and transformation. References to the SDGs.                             | 35         |

| Themes and Subthemes                             | Definition  | References |
|--|---|------------|
| <b>Organizational Model Transformation</b>       | It refers to the role of organizational design and change in driving transformation and creating more agile organizations.  | 22         |
| <b>Digital transformation and digitalization</b> | Technology as a driver of transformation. Strategically focused or developed through the incorporation of information technologies, architectures, and digital systems, digitalization is focused as a lever for accelerating transformation. | 82         |
| Investment in infrastructure and technology      | Reference to the need for investment in infrastructure and technologies. Investment effort on digitalisation.   | 2          |

| Themes and Subthemes   | Definition  | References |
|--|---|------------|
| <b>Transformation (Exploration) business practices: Thematic analysis in EFQM Memories</b> |   | <b>298</b> |
| <b>Open culture promoting change and agility</b>   | References to aspects of culture, leadership, and values that enable the organization to simultaneously function and transform. Mention also of change management.  | 35         |
| Support for employees and other stakeholders   | References to management practices aimed at accompanying people in the process of change. In my experience, it is a relevant topic, although it appears to be only partially developed.                             | 2          |
| Capacity Building for Adaptation and Transformation  | Practices aimed at reskilling people, especially in digital skills. There are some references to soft skills, but they are not so numerous.   | 19         |
| Initiatives that promote collaboration   | Tools, management practices, and initiatives that promote collaboration among people within the organization and with other organizations, with a focus on innovation, knowledge exchange, and other related areas. | 21         |

| Themes and Subthemes                        | Definition  | References |
|---|---|------------|
| Agile methodologies and new ways of working | It refers to management practices, especially linked to agility (kanban, Scrum), and other new ways of working that seek agile cultures through ways of working   | 27         |
| Change management methodologies             | Reference to the development of change management procedures. Although it appears only occasionally.  | 1          |
| Transformation of physical workspaces       | Only punctual references to the role of changing physical spaces as a tool to promote collaboration and learning.   | 4          |
| <b>Knowledge management</b>                 | It refers to the practices of organizations that explicitly manage their knowledge to reinforce learning processes.   | 23         |
| <b>Innovation</b>                           | It refers to initiatives to systematically promote innovation in organizations. R+D+i structures appear as mechanisms for its promotion, as well as open innovation and ideation infrastructures. There are no references to scaling innovation.  | 50         |
| Technology Observatories                    | It refers to establishing management practices to conduct systematic technological surveillance, enabling the identification and anticipation of relevant trends and technological advances that can support the organization's innovative drive. | 15         |
| <b>Strategic Process and Strategic Plan</b> | It refers to strategic planning as a tool for promoting and guiding transformation and exploration. It provides the guidance that enables the possibility of initiating change.   | 51         |
| Strategic alliances                         | Practices related to the management of strategic alliances to address innovation challenges and market demands.   | 9          |
| Benchmarking                                | Use of benchmarking as a tool for identifying good practices to inspire improvement and transformation processes.   | 4          |
| Inorganic growth                            | Acquisition of companies as a tool for growth and development.  | 2          |

| Themes and Subthemes                             | Definition  | References |
|--|---|------------|
| Ecosystem  | It refers to actions by organizations in which they analyze their ecosystems to identify trends and factors that may determine their adaptation and transformation needs. Linked to the strategic plan.                                       | 5          |
| Organization governance and transformation       | It refers to the involvement of governing and management bodies in promoting transformation.  | 5          |
| EFQM model as the basis for transformation       | Results of the EFQM evaluation as input for developing transformation promotion plans.  | 2          |
| New business models                              | It refers to initiatives for evolution, change, and the development of new business models, typically incorporated into the deployment of the strategic plan.   | 15         |
| Strategic projects                               | Project management as a tool for transformation.  | 1          |
| <b>Sustainability</b>                            | It refers to initiatives to strengthen sustainability, especially environmental, but also social, as a mechanism for innovation and transformation. References to the SDGs.   | 35         |
| <b>Organizational Model Transformation</b>       | It refers to the role of organizational design and change in driving transformation and creating more agile organizations.  | 22         |
| <b>Digital transformation and digitalization</b> | Technology as a driver of transformation. Strategically focused or developed through the incorporation of information technologies, architectures, and digital systems, digitalization is focused as a lever for accelerating transformation. | 82         |
| Investment in infrastructure and technology      | Reference to the need for investment in infrastructure and technologies. Investment effort on digitalisation.   | 2          |

| Themes and Subthemes  | Definition  | References |
|---|---|------------|
| <b>Managing performance and transformation: Strengths and opportunities for improvement analysis in EFQM assessment reports</b> |   | <b>754</b> |
| <b><i>Opportunities for improvement</i></b>   |   | <b>318</b> |
| <b>Assets, Maintenance, and Obsolescence of Equipment and Systems</b>   | Predictive maintenance refers to enhancing asset management, extending asset lifecycles, and, above all, incorporating technology to improve asset and maintenance management.  | 21         |
| Environmental sustainability and circular economy   | It refers to opportunities for improvement linked to initiatives in environmental sustainability, the circular economy, and waste 0, focusing on better asset and waste management from an environmental and (energy) efficiency perspective.   | 36         |
| <b>Innovation Management</b>  | It refers to identifying opportunities for improvement to reinforce innovative approaches, making them more systematic and extending them to the entire organization, or through other initiatives. It is also interesting that it is more integrated with transformation processes.                | 34         |
| Innovative culture  | It refers to opportunities for improvement focused on promoting a more innovative culture in organizations, especially during the ideation and participation phases.  | 13         |
| Technology Watch  | It refers to the need to design or promote proactive technology-watch approaches that enable early identification of technological innovations likely to improve the organization's performance and innovation.   | 10         |
| <b>Transformation Management</b>  | Change management. It refers to identified opportunities for improvement related to the structuring of transformation management, to make it more systematic, to standardize it through ad hoc processes, to make the needs for change more explicit, and to strengthen the link with the strategy. | 51         |
| Project management, transform   | PMO, transformation direction. Refers to opportunities for improvement linked to strengthening project management approaches and their governance through figures of project  | 7          |

| Themes and Subthemes   | Definition   | References |
|--|--|------------|
| ation, and PMOs  | offices or transformation directorates that promote and prioritize this type of initiative.  |            |
| Involvement of external stakeholders who are experts in change processes | Identified opportunities for improvement to reinforce transformation processes with the support of external stakeholders with subject matter expertise that can help the organization better focus on that transformation.   | 12         |
| Leadership, culture, and people management                               | Refers to management aspects related to leadership, organizational culture, and people management that require improvement to facilitate and promote transformation processes.   | 16         |
| Measuring the impact of transformation                                   | It refers to identifying the need to improve the measurement of the impact of transformation processes, with more precise indicators linked to the different initiatives and better alignment of transformation plans with the strategy's key indicators. Be clear about what moves the needle and what doesn't. | 25         |
| New ways of working and agile methodologies                              | It refers to the opportunity that the extension of new ways of working, such as agile methodologies like Kanban, Scrum, and Lean, or tools like Six Sigma, project management, and transversal teams, can provide to reinforce transformation processes, thereby giving the organization more agility.           | 36         |
| <b>Comprehensive and global risk management</b>                          | It refers to opportunities for improvement stemming from extending risk management to more comprehensive, global areas of the organization. The idea of having a broader approach is repeated in many cases. Considering external risks, strategic-plan risks, and reputational risks...                         | 89         |
| Cybersecurity and informati  | Data protection. References to strengthening data and information security and cybersecurity through the implementation of certified systems, such as ISO 27001 or global cybersecurity plans.   | 32         |

| Themes and Subthemes                   | Definition   | References |
|--|--|------------|
| on security                            |  |            |
| Business and service continuity        | Develops opportunities for improvement identified in strengthening organizational resilience by structuring business continuity, disaster recovery, and crisis management plans, among others.   | 7          |
| Economic and financial risk management | Opportunities for improvement in the management of organisations' economic and financial risk. Establishment of scenarios, financial control, assurance of financing sources for continuity and operational growth...  | 30         |
| Succession of Talent in Key Positions  | It refers to the risk of loss of talent and knowledge and succession plans as contingency plans for these risks.   | 3          |
| <b>Knowledge management</b>            | References to opportunities for improvement linked to the need to systematize knowledge management - its identification, collection, documentation, and also its dissemination - within the organization. Incorporate technology and collaborative document and knowledge management tools to extend its capabilities. | 23         |
| Alliances with suppliers and partners  | It refers to opportunities related to strengthening alliances with suppliers and partners to improve the capture and incorporation of new knowledge or reduce excessive dependence on any of these suppliers.  | 9          |
| Systematic benchmarking                | Opportunities for improvement linked to developing benchmarking systems to incorporate new knowledge into the organization and to be able to learn from others. Many references to its extension and consolidation as a structured management practice of the organization.  | 18         |
| Protecting intellectual                | References to strengthening the protection of the organization's intellectual property, particularly in relation to innovation projects and R+D+i.   | 6          |

| Themes and Subthemes                      | Definition   | References |
|---|--|------------|
| al property                               |  |            |
| <b>Process management and improvement</b> | It refers to opportunities for improvement linked to process management. Either in its extension, in its depth, in its design, in the role of the leaders of the processes and above all as a tool for improving the functioning and continuous improvement.   | 33         |
| <b>Strategy planning and execution</b>    | It refers to opportunities for improvement linked to the planning and execution of the strategy, including its alignment with purpose and mission, the robustness of the process, the involvement of the GGIs in it, and the monitoring of operational plans and their execution.  | 15         |
| Organizational design and structure       | Organizational structure Aligned with strategy, ready for transformation, structured to strengthen governance.   | 4          |
| Responsible management, ESG criteria      | Refers to identified improvements in integrating sustainability into the organization’s strategy, both in terms of strategic approaches and in the measurement of impact across ESG dimensions.  | 10         |
| Ecosystem monitoring system               | Ecosystem, stakeholders. It refers to improvements aimed at strengthening the analysis of the context, including collecting data on the ecosystem's various elements, interest groups, and trends.   | 7          |
| <b>Indicators system</b>                  | It refers to opportunities for improvement identified in the management of indicators in organizations: their simplification due to their tendency to be numerous, the possibility of aggregation, systematization in their collection and management, and digitalization. All this is aimed at reinforcing the capacity for impact on management through the measurement of what is relevant to the organization. | 33         |
| Strategic Scorecard                       | References identified for opportunities to improve scorecards, their link to the strategy's deployment, and the opportunity to measure strategic projects...   | 10         |

| Themes and Subthemes                           | Definition   | References |
|--|--|------------|
| <b>Digital transformation as a strategy</b>    | It refers to opportunities for improvement aimed at making organizations more strategic in their digital transformation plans, enhancing them, and opening them up to the entire organization, thereby linking them more clearly and directly to the strategy.   | 19         |
| Advanced analytics and predictive models       | Advanced analytics is applied to projects of different natures to improve decision-making. Use of the data available in the organization.  | 40         |
| Development of digital skills in people        | Incorporation of new digital talent and strengthening people's capabilities to accelerate digital transformation. Reskilling and upskilling.   | 5          |
| Improvement of SSIs, ERPs, and CRMs.           | Recommendations for improving the implementation, integration, or use of organizations' Information Systems, including ERPs and CRMs.  | 9          |
| Disruptive technologies, AI, blockchain...     | It refers to opportunities to accelerate the incorporation of emerging technologies such as AI, big data, and blockchain to improve operations and drive transformation.   | 9          |
| <b>Strengths</b>                               |  | 436        |
| <b>Digitalization and technology</b>           | It refers to the strengths highlighted by evaluators related to the processes of digitization within organizations and their digital transformation. Mix of focus on improving performance through process improvement and efficiency, and at the same time seeking transformation, improving radical... | 40         |
| Automation and digitalization for organization | It refers to initiatives to use technology, automation, and digitalisation to improve organisational efficiency and, by extension, the operational axis.   | 25         |

| Themes and Subthemes                                | Definition  | References |
|---|---|------------|
| onal efficiency                                     |   |            |
| Implementation of ERP, CRM, and Information Systems | References to outstanding strengths in relation to the implementation and use of information systems, such as ERP and CRM, in organizations to make their operation more robust.  | 24         |
| Investment in technology assets                     | It refers to the strengths as the evaluators' allusions to organizations' investments in technological assets to improve their operations. It complements the issue of digitalization and technology by focusing on the organization's efforts to equip itself with the necessary assets. | 23         |
| <b>Organizational and governance structure</b>      | It refers to how evaluators highlight as a strong point the management/organizational and governance structures of organizations to serve the fulfillment of their purpose and strategy, and also how they respond to transformation initiatives.   | 25         |
| <b>Data-driven analytical management</b>            | Data-driven analysis capability designed to enhance performance. References to efficiency, effectiveness, and data-driven decision-making.  | 35         |
| Data quality and unique data                        | References to governance mechanisms to ensure data quality and a single data source to reinforce reliability and security in processes.   | 4          |
| Predictive management                               | References to predictive models based on historical data series that allow inferring future results based on correlated variables. Impact on predictability and operational management.   | 9          |
| <b>Asset Management &amp; Maintenance</b>           | Asset management and maintenance programs stand out as key strengths in achieving maximum efficiency. Incorporation of technology for better management, and incorporation of concepts such as preventive and predictive maintenance.   | 20         |

| Themes and Subthemes                         | Definition  | References |
|--|---|------------|
| Environmental sustainability                 | Refers to management systems and practices that promote and reinforce environmental sustainability, with multiple references to the implementation of ISO 14001   | 22         |
| <b>Innovation Management</b>                 | in services and products. It refers to outstanding strengths in innovation management, linked to R&D+i processes aimed at developing new products and services. Also related to technologies.   | 18         |
| Innovative culture                           | It reinforces organizational initiatives through leadership and by establishing ideation and participation programs to promote a culture of leadership.   | 6          |
| New business development diversification     | It refers to strengths linked to the development of new lines of business, services, and products.  | 7          |
| Technological Visibility and Trends          | References to strengths in technology watch initiatives for identifying relevant solutions and tools in the organization's innovation process.  | 8          |
| <b>Transformation Management</b>             | It refers to the outstanding strengths of transformation processes implemented by organizations, most of which are linked to their strategic plans and include elements such as organizational transformation, processes, digital, and value proposition. | 35         |
| People management and organizational culture | It refers to initiatives that promote a culture open to transformation and change. Mentions of leadership and internal drivers of change. Related to People management policies.  | 5          |
| Implementation of new ways                   | Teleworking and the digital tools that support it refer to new ways of working focused on facilitating transformation processes. Above all, agile approaches.   | 12         |

| Themes and Subthemes                      | Definition   | References |
|---|--|------------|
| of working                                |  |            |
| Transformation projects                   | Project office, PMO... Reference to the fact that project management and its governance are key to addressing the transformation.  | 12         |
| <b>Risk Management</b>                    | It refers to standardized risk management systems and practices that incorporate risk identification, evaluation, and mitigation plans. Linked to processes, but also very widespread, strategic risk management is based on methodologies such as COSO. | 64         |
| Cybersecurity and information security    | It refers to practices of organizations to prevent cybersecurity risks and strengthen information security. In many cases, the evaluators value the monitoring of benchmarks such as ISO 27001.  | 14         |
| Business Continuity and Crisis Management | It refers to highlighting as a strong point the development of business continuity plans and critical processes by organizations.  | 5          |
| Regulatory Compliance                     | Enhancement of compliance systems as a mechanism to better manage criminal and legal risks and in organizations.   | 2          |
| Organizational resilience                 | Business continuity. References to the flexibility and resilience of organizations, especially in the face of the impact of Covid 19.  | 12         |
| <b>Knowledge management</b>               | References as strengths to the development of practices to structure knowledge management and to promote organizational learning.  | 19         |
| Training                                  | It refers to highlighting, as a strength, the effort in education and training to promote functioning and transformation.  | 4          |

| Themes and Subthemes  | Definition   | References |
|---|--|------------|
| <b>Economic and financial management</b>                        | It refers to management practices aimed at economic control, to ensure operations through the availability of financing and financial capacity, budgetary control, and analytical control that support operations. | 55         |
| <b>Process management and improvement</b>                       | It emphasizes the importance of reinforcing process-based management approaches and their improvement within organizations as a key strength. Management approach linked to the operation.                         | 62         |
| <b>Strategy planning and execution</b>                          | It reinforces as a strong point the structuring of strategic plans as tools to promote transformation through plans, projects and initiatives.   | 22         |
| Strategic alliances with customers and other stakeholders       | Refers, as a strength, to the structured implementation of strategic partnerships with different stakeholder groups that reinforce and advance the organization’s plans.   | 6          |
| Alignment, involvement, and effective communication with People | Refers to initiatives and action plans that strengthen internal communication aimed at fostering alignment and employee engagement within the organization.  | 7          |
| Trend and ecosystem analysis                                    | Strategic surveillance system. It reinforces the strengths of strategic surveillance, trend analysis, and megatrends, which help organizations anticipate risks and opportunities and guide their strategy.        | 11         |
| Strategy Balanced Scorecard                                     | Refers to strengths related to highlighting balanced scorecards linked to the strategy that allow its progress to be measured. And therefore, that of functioning and, eventually, that of transformation.         | 11         |

| Themes and Subthemes                         | Definition   | References |
|--|--|------------|
| Integrating ESG sustainability into strategy | Refers to the systematic integration of sustainability-related initiatives into the organization’s strategic plans and transformation agendas.   | 5          |
| <b>Operational Management System</b>         | Operational model and monitoring, quality, and integrated management system. Integrated Quality System. Strong point linked to performance. It provides stability in management and assurance of compliance with quality, environmental, prevention, and safety standards... | 41         |
| Project Management                           | It refers to management practices to systematize project management. It enables the mapping of strategic initiatives and can serve as a valid tool for both operational and transformation management.   | 5          |
| ISOs certified management systems            | EFQM as a reference on the path to excellence. It refers to ISO management standards as a benchmark for operational management quality.  | 29         |