MASTERS IN MANAGEMENT (MIM)

MASTERS FINAL WORK

DISSERTATION

ADAPTIVE LEADERSHIP IN DEMANDING FINANCIAL ENVIRONMENTS

PEDRO AFONSO DE MELO PEREIRA

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PEDRO AFONSO DE MELO PEREIRA

SUPERVISOR: PROF. MARIA JOÃO COELHO GUEDES

JURY:
PRESIDENT: PROF. MARIA EDUARDA MARIANO AGOSTINHO SOARES
RAPPORTEUR: PROF. RICARDO MARINO FRANCISCO RODRIGUES
SUPERVISOR: PROF. MARIA JOÃO COELHO GUEDES

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RESUMO

Esta dissertação tem como objetivo validar a *Adaptive Leadership Behaviour Scale* (ALBS) no contexto de profissionais que atuam em ambientes financeiros exigentes, através da avaliação das suas propriedades psicométricas. Estes contextos caracterizam-se pela incerteza, pressão regulatória e elevadas exigências de responsabilização. Embora a escala tenha sido previamente validada em amostras multissetoriais, as suas propriedades psicométricas em contextos profissionais específicos de elevada pressão, como o setor financeiro, ainda não foram examinadas.

O estudo utiliza um desenho de investigação quantitativo, baseado num questionário online estruturado administrado a 115 profissionais que desempenham funções financeiras. Os dados foram analisados através de *Principal Component Analysis* (PCA) na versão final de 15 itens da escala original. Os resultados confirmam que a amostra apresenta condições adequadas para a análise psicométrica e sustentam uma estrutura unidimensional, indicando que os itens da escala avaliam um único construto subjacente.

Do ponto de vista teórico, o estudo amplia a validação empírica da ALBS para ambientes profissionais financeiros, fornecendo evidência empírica adicional de que a liderança adaptativa pode ser compreendida como uma capacidade comportamental integrada, em vez de um conjunto de traços independentes. Do ponto de vista prático, os resultados fornecem um instrumento fiável para avaliação, recrutamento e iniciativas de desenvolvimento de liderança em organizações financeiras, onde pequenos erros de julgamento ou falhas de comunicação podem ter consequências significativas.

Palavras-Chave: Liderança Adaptativa, Ambientes Exigentes, Equipas Financeiras, Capacidade Comportamental, Validação Psicométrica

ABSTRACT

This dissertation aims to validate the *Adaptive Leadership Behaviour Scale* (ALBS) in the context of professionals working in demanding financial environments through the assessment of its psychometric properties. These environments are characterised by uncertainty, regulatory pressure, and high accountability demands. Although the scale has previously been validated in multisectoral samples, its psychometric properties in specific high-pressure professional contexts, such as the financial sector, have not yet been examined.

The study adopts a quantitative research design based on a structured online questionnaire administered to 115 professionals working in financial roles. The data were analysed using Principal Component Analysis (PCA) on the final 15-item version of the original scale. The results confirm that the sample presents adequate conditions for psychometric analysis and support a unidimensional structure, indicating that the scale items measure a single underlying construct.

From a theoretical perspective, the study extends the empirical validation of the ALBS to financial professional environments, providing additional empirical evidence that adaptive leadership can be understood as an integrated behavioural capability rather than a set of independent traits. From a practical perspective, the findings provide a reliable instrument to support leadership assessment, recruitment, and leadership development initiatives in financial organisations, where small errors in judgement or communication failures may have significant consequences.

Keywords: Adaptive Leadership, Demanding Environments, Financial Teams, Behavioural Capability, Psychometric Validation

ABBREVIATIONS

ALBS: Adaptive Leadership Behaviour Scale

AVE: Average Variance Extracted

ESG: Environmental, Social and Governance

KMO: Kaiser-Meyer-Olkin

PCA: Principal Component Analysis

SDG: Sustainable Development Goal

UPB: Unethical pro-organisational behaviour

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1. INTRODUCTION

1.1. Contextualization

Leadership is essential in shaping both organisational performance and employee well-being, particularly in contemporary organisational environments marked by uncertainty, complexity, and recurring disruption. As organisations continue to operate in increasingly volatile and demanding contexts, leaders are expected to respond rapidly to change and guide individuals and teams through those situations. Such expectations place leadership as the heart of how organisations navigate turbulence and maintain effective functioning over time (Riggio & Newstead, 2023).

Within this context, adaptive leadership behaviours emerge as a relevant response to the demands placed on leaders in conditions of uncertainty, including time pressure and the balancing of competing organisational and human priorities. Rather than relying on fixed leadership styles, adaptive leadership emphasises the capacity to adjust leadership actions in response to changing task requirements, relational dynamics, and external challenges (Nöthel et al., 2023). Against that background, the study focuses on professionals operating in financial contexts characterised by high pressure and uncertainty (Naffa & Dudás, 2023).

1.2. Objectives and relevance

The main purpose of this dissertation is to validate the Adaptive Leadership Behaviour Scale (ALBS), originally developed by Nöthel et al. (2023), in the context of financial professional environments. Specifically, the study examines the psychometric properties of the scale, including sample adequacy, factor structure, internal consistency, and convergent validity (Shrestha, 2021), in a sample of professionals working in financial functions characterised by uncertainty, pressure, and high demands. The relevance of the study is important from a methodological standpoint, extending the empirical validation of the ALBS to a specific high-pressure occupational context, and from a practical standpoint, providing a reliable instrument that can be used in leadership assessment, recruitment, and development initiatives within financial organisations.

1.3. Research Gaps

Although leadership in demanding contexts has been widely discussed, the existing literature has predominantly examined a different set of organisational contexts, such as healthcare, public services, or situations directly associated with large-scale disruptions (Schaedler et al., 2022). Comparatively less attention has been given to professionals working in financial areas, where leadership is examined through outcomes related to performance or decision-making, rather than through how leadership behaviours are experienced by employees under pressure and demands (Lehtonen et al., 2025). As a result, although the ALBS has been validated across multiple samples (Nöthel et al., 2023), its psychometric properties in specific high-pressure contexts, such as finance, have not yet been examined. The dissertation addresses that gap by validating the scale for financial professionals.

1.4. Structure of the research

The Introduction presents the study's context, defines the relevance of leadership in demanding contexts, and outlines the research objectives and scope. The Literature Review examines the main theoretical perspectives on leadership under conditions of uncertainty, with particular attention to adaptability, ethics, communication, and resilience. The chapter examines existing research on leadership behaviours and highlights the relevance of adaptive leadership as a behavioural response to challenging environments. The Methodology chapter defines the research design, including the sample characteristics, the data collection process, and the measurement instrument used to assess adaptive leadership behaviours. The Results chapter presents the empirical findings resulting from the analysis of the data collected, focusing on employees' perceptions of adaptive leadership behaviours in financial areas. Finally, the Discussion and Conclusion chapters interpret the findings, discuss their theoretical and practical implications, acknowledge the limitations of the study, and suggest directions for future research.

This study aligns with the United Nations Sustainable Development Goals (SDGs), particularly SDG 8 (Decent Work and Economic Growth) and SDG 16 (Peace, Justice and Strong Institutions). By looking at leadership behaviours in professional settings, the research focuses on the role of leadership in supporting effective organisational functioning and responsible decision-making. In this sense, the study connects leadership practices to good working conditions, sustainable organisational performance, and ethical governance. The focus on adaptive leadership behaviours in financial contexts underscores their importance, as they are essential to the development of strong, sustainable organisations.

2. LITERATURE REVIEW

2.1. Leadership: Conceptual Foundation

Leadership is a relational process of influence through which individuals align their actions and guide others towards a shared organisational goal (Riggio & Newstead, 2023). Rather than being explained solely by fixed traits, contemporary leadership research emphasises observable behaviours and situational contingencies in shaping leadership effectiveness. In demanding environments, the effectiveness of leadership depends on the capacity to adjust behavioural responses to shifting task demands, relational dynamics, and contextual pressures (Dirani et al., 2020).

2.2. Leadership in Demanding Contexts

2.2.1. Foundations of Leadership in Demanding Contexts

Demanding situations are moments when normality breaks down, when events become unpredictable, and when information becomes incomplete. In those conditions, traditional management approaches, which are designed to build stability and to plan and control, become insufficient (Riggio & Newstead, 2023). Research on leadership in demanding contexts emerged as a distinct field of study because of those situations, by describing how leaders guide teams through instability, ambiguity, and threat, and maintain ethical and operational stability in extreme conditions (Schaedler et al., 2022).

When leaders operate in demanding environments, they must act quickly but thoughtfully, offering direction even when information is incomplete, and maintain organisational stability (Riggio & Newstead, 2023). Leading in demanding contexts requires more than technical experience. It demands emotional skills, interpretive judgement, and the ability to change as events unfold (Lehtonen et al., 2025).

A major development in the field is the transition from viewing leadership as an attribute to seeing it as a process that is relational and interactional in nature (Riggio & Newstead, 2023). Leadership-as-practice perspectives understand leadership not as a set of individual traits, but as something that appears through everyday interactions, practises, and shared activities within organisations. From this view, disturbances tend to weaken formal structures and elevate the importance of informal coordination (Lehtonen et al., 2025). In situations characterised by ambiguity and time pressure, leadership emerges through collective sensemaking, through rapid conversations, shared interpretation of ambiguous signals, and collaborative problem solving. Leaders, therefore, become facilitators rather than commanders (Lehtonen et al., 2025).

In this study, leadership in demanding contexts is identified as leadership performed under conditions of heightened uncertainty and competing demands, where normal routines and structures are insufficient. Rather than forming a distinct leadership style, such leadership is portrayed as a situational phenomenon, shaped by how leaders respond to unusual events and balance stability with long-term strategic considerations. From this perspective, leadership in demanding contexts highlights the need for leaders to simultaneously manage the present while preparing for the future, making rapid and important decisions without losing sight of the main goals, which requires leaders to shift between improvisation and strategy, so that short-term changes remain compatible with organisational resilience (Schaedler et al., 2022).

2.2.2. Adaptive Leadership Responses

Adaptive leadership has become one of the central behavioural frameworks for understanding how leaders respond effectively in high-pressure environments. Rather than referring to a fixed leadership style, adaptive leadership is about observable behaviours through which leaders adjust their actions in response to changing demands. It refers to the capacity to modify behavioural strategies, reevaluate assumptions, and respond flexibly when normal routines and solutions are no longer effective (Nöthel et al., 2023). Adaptive leadership behaviour captures leaders' behavioural responses to uncertainty, including experimentation with new approaches, reflection of situational feedback, and the flexible application of leadership behaviours in dynamic contexts. Adaptive leadership behaviours are leadership actions used in dynamic contexts, where leaders must respond to sudden change and unusual routines. Empirical studies illustrate this type of dynamism, showing that leaders who adjusted workflows, encouraged local problem-solving, and communicated frequently helped their teams maintain psychological stability despite the sudden changes (Dale Oen et al., 2022; Tang et al., 2024). Empirical evidence further shows that adaptive management under high demands relies on rapid operational adjustments and flexible decision-making processes to maintain stability (Ajith et al., 2025).

Adaptive leadership also requires strong sensemaking because challenging environments create multiple interpretations of unfolding events. Leaders do not erase doubt but help teams navigate it by establishing shared frames of meaning (Lehtonen et al., 2025). This is vital in financial teams, where assumptions are constantly reconsidered, and small misinterpretations can lead to major reporting errors (Naffa & Dudás, 2023). Adaptive behaviour also combines with innovation. Leaders who encourage innovation by refining existing processes while exploring new ones help organisations remain functional under stress and improve performance (Bai et al., 2025). In financial teams, this innovation is very relevant given the need to balance regulatory constraints, such as reporting accuracy, and rapid responses to market volatility.

Adaptive performance also depends heavily on the employees' psychological health. Leaders who express confidence and positivity strengthen individuals' ability to cope with uncertainty (Tang et al., 2024). In financial contexts, where performance pressure and accountability are very high, emotional resilience becomes critical for quality in the decision-making process under stress.

2.2.3. Ethical, Moral, and Responsible Leadership in Demanding Contexts

Demanding contexts are not only a challenge for operational routines, but they also test the organisation's ethical infrastructure. When information is incomplete, expectations and consequences escalate, and leaders must preserve not just functionality but integrity. Ethical, moral, and responsible leadership perspectives explain how leaders protect the organisation's values and legitimacy under pressure (Pless et al., 2022). Ethical dilemmas intensify in volatile environments, such as trade-offs between transparency and control, employee well-being and organisational survival, or ethical standards and pressure for performance, as leaders face diverse expectations and resource constraints (Dwinanda et al., 2025).

Ethical leadership provides clarity when the usual becomes blurred. Ethical leaders demonstrate fairness and act with care, creating psychological safety and reducing silence and fear-based decision-making (Ayoko, 2022). During highly demanding situations, employees often struggle to interpret whether improvisation is encouraged or risky, and whether shortcuts are widely accepted under pressure. Ethical leaders reduce this ambiguity by setting boundaries. Ethical leaders also protect employees from moral distress by offering emotional and moral support, even in high-pressure contexts (Ali Awad & Al-anwer Ashour, 2022). Financial teams face moral tension too, particularly when confronted with volatile data, reporting pressure, or stakeholder evaluation.

In ambiguous contexts, this ambiguity can translate into unethical pro-organisational behaviour (UPB), defined as unethical activities done by employees with the aim of benefiting the organisation, like bending rules, keeping negative information for themselves, or selectively presenting only favourable information (Ahmad et al., 2024). Precisely, high-pressure conditions increase the likelihood of UPB. Performance pressure and ambiguous signals from leadership can encourage employees to bend the rules in ways perceived as serving the organisation. In financial roles, UPB may represent delaying recognition of negative indicators or selectively presenting favourable projections.

High-pressure incentives can also disrupt ethical judgment. The ethical pressure associated with high-pressure environments illustrates how demanding conditions activate survival narratives, namely the belief that extraordinary circumstances justify unusual measures. Moral courage helps counter those risks. It increases when leaders normalise ethical discussions, encourage speaking up, and protect those who raise concerns (Ali Awad & Al-anwer Ashour, 2022). Similarly Responsible leadership considers societal, regulatory, and stakeholder consequences in decision-making (Pless et al., 2022). Regarding this view, ethical leadership has more consequences in destabilised or high-pressure environments, where weak governance and fast decisions can intensify the risk of moral drift (Miklian, 2025). In a similar vein, organisations with strong Environmental Social Governance (ESG) structures demonstrate higher resilience under environmental disruption because transparent governance builds stakeholder confidence (Naffa & Dudás, 2023). Furthermore, environmentally aligned ethical leadership enhances employee engagement and performance, creating internal conditions that support resilience (Elkhweildi et al., 2025). In practice, these perspectives align. Ethical leadership stabilises internal ethical standards, while moral courage enables individuals to act consistently with those standards under pressure. Responsible leaders ensure that decisions converge with broader stakeholder expectations. Research shows that without ethical orientation, destabilising events can snowball into "polycrises," where poor decisions create negative effects (Menghwar et al., 2025). For financial teams, where precision, transparency, and accountability are fundamental, an explicit ethical framework is essential. Ethical leadership in demanding environments not only protects integrity but also shapes how much external factors can cause disruption (Miklian, 2025).

2.3. Demanding Financial Environments and Leadership Implications

Financial teams are the informational and analytical core of organisations. They monitor liquidity, evaluate risks, interpret the market, ensure regulatory compliance, and provide analytical and strategic decision-making (Riggio & Newstead, 2023). In stable times, their work is demanding but predictable. In periods of high volatility and disruption, however, this equilibrium fades. Volatility disrupts models, assumptions become unreliable, and the volume of urgent requests increases exponentially. As a result, financial teams face a unique set of pressures that shape how leadership must be led in those situations (Naffa & Dudás, 2023).

2.3.1. Environmental Instability and Organisational Pressures

Periods of high instability affect the informational environment on which financial teams act. In these unstable environments, market indicators become more volatile, data loses quality, and previously reliable analytical models no longer reflect unfolding conditions. The increase in volatility places greater cognitive demands on financial analysts, who must interpret fluctuating signals and update assumptions more frequently (Tang et al., 2024). Digital transitions can escalate this instability, as systems and workflows are often disrupted or overloaded during periods of disruption (Grieva et al., 2025). Accordingly, such environmental pressures require financial teams to deliver outputs rapidly while relying on increasingly unstable information. Time horizons make cycles shorter, liquidity assessments shift from periodic to continuous, and leadership requests for revised scenarios become more usual. Accelerated cycles increase the chance of analytical errors when accuracy is most critical. The situation is further intensified by regulatory expectations, which typically tighten during periods of market instability and demand greater precision and transparency (Naffa & Dudás, 2023). Adaptive performance under such conditions depends heavily on individual positive psychological resources (Tang et al., 2024). Employees who possess resilience, optimism, and agility cope better with ambiguity and change in expectations. However, psychological capacities are not evenly distributed and may collide under pressure. As uncertainty accumulates, financial professionals may struggle with over-analysis, decision paralysis, or overconfidence in assumptions that no longer hold. Such destabilising conditions also intensify interdependence. Financial teams rely on accurate and timely inputs from operational units, commercial functions, and external partners. When these other functions are disrupted, financial teams often receive incomplete, delayed, or wrong information. A second layer of uncertainty is created, even when analysts understand what is happening in the market, they may lack reliable internal data to evaluate the organisation's own exposure (Tang et al., 2024).

2.3.2. Ethical, Psychological, and Operational Vulnerabilities

Highly demanding environments create ethical vulnerabilities in all organisational functions. Financial professionals may face strong incentives to deal with information in ways that present a more favourable picture for the stakeholders. Periods of disruption often trigger explanations such as "we are doing this for the company" or "extraordinary times require unusual measures", which legitimise unethical actions taken in the perceived interest of the organisation, increasing the likelihood of UPB (Ahmad et al., 2024). When combined with pressure and ambiguous leadership, such justificatory ways of thinking can lead to selective reporting, omission of unfavourable data, or optimistic projections unsupported by results.

Psychologically, high-pressure conditions also impose heavy burdens. Stress induced by high-pressure conditions reduces attentional control while impairing judgment and decision-making quality through increased exhaustion (Luu, 2021). Financial analysts sometimes work long hours under intense pressure, experiencing fatigue that minimises their ability to identify anomalies or make assumptions. Operational vulnerabilities increase due to workflow disruptions, and crisis conditions weaken coordination among teams that normally ensure consistency. When communication becomes fragmented, analysts may use inconsistent assumptions (Dale Oen et al., 2022). Shared leadership can support resilience under these circumstances, but only when coordination quality is high, otherwise, it can create confusion or different interpretations of data

(Hao et al., 2025). Beyond structural and process-related disturbances, such destabilising conditions can also have emotional consequences for financial professionals. Emotionally, highly volatile and competitive environments generate fear, uncertainty, and pressure. Employees can hesitate to raise concerns about incorrect assumptions, especially if leadership appears focused on achieving specific outcomes rather than accuracy. That hesitation can be dangerous in financial teams because small inaccuracies at the onset of destabilising events can propagate into major errors (Riggio & Newstead, 2023).

Demanding environments not only increase ethical and psychological pressures but also expose technological and information-processing vulnerabilities that support financial operations. Digital fragmentation, understood as the spread of disconnected systems and inconsistent data flows, further weakens coordination and information reliability. During periods of disruption, digital systems become overloaded as organisations accelerate technological adoption. Without strong digital leadership, this change can lead to inconsistent data sources, version control issues, and audit vulnerabilities, all of which affect financial outcomes (Ye, 2025).

2.3.3. Leadership Implications

The unique pressures faced by financial teams mean equally unique leadership requirements (Riggio & Newstead, 2023). Leadership in demanding financial contexts cannot simply replicate the practices used in other units, it must address the specific cognitive, ethical, and structural challenges inherent to financial work, where decisions rely on various signals, probabilistic judgments, and rapid interpretation of volatile data (Schaedler et al., 2022). Financial teams handle data that is not only volatile but also often contradictory. Leaders must help analysts build good interpretations of rapidly changing conditions. Sensemaking conversations are essential for avoiding reliance on outdated assumptions or overcorrections in highly volatile environments (Lehtonen et al., 2025). Emotional strain undermines analytical accuracy (Luu, 2021). Leaders must protect the environment by promoting positivity, pacing workload, and acknowledging uncertainty. In emotional authenticity, leaders openly share uncertainty while remaining stable, as this helps maintain cognitive functioning (Riggio & Newstead, 2023).

Consequently, high pressure creates strong incentives for UPB. Leaders must be clear that accuracy, transparency, and compliance are non-negotiable. Moral courage is strengthened when leaders normalise speaking up and protect those who challenge questionable assumptions (Ali Awad & Al-anwer Ashour, 2022). Research shows that clear ethical boundaries reduce the temptation to manipulate information (Ahmad et al., 2024; Corral De Zubielqui & Harris, 2024) by limiting justificatory reasoning and by clarifying which trade-offs are unacceptable under pressure.

Beyond ethical clarity and moral courage, demanding contexts also need leadership approaches that support rapid action and adaptive decision-making. Empowering leadership accelerates decision-making in high-stakes environments by enabling timely adjustments such as model recalibration or scenario analysis. Providing autonomy, when balanced with oversight, increases responsiveness (Van Roekel et al., 2025). However, empowered decision-making depends on reliable information systems. Digital fragmentation is one of the greatest threats to financial precision. Clear digital leadership ensures coherent systems, shared data sources, version control, and stable routines (Grieva et al., 2025; Ye, 2025). Leaders must protect data integrity across rapidly changing workflows. When such a structure is fragile, financial teams are forced to compensate psychologically for unstable systems. Resilience in financial teams comes from learning more than from toughness, reflection, innovation, and psychological capital, which strengthen adaptive capacity (Bai et al., 2025; Long et al., 2025; Njaramba & Olukuru, 2025). Reviews, scenario experiments, and open discussions help teams adjust assumptions as environmental conditions evolve.

2.4. Leadership Communication and Knowledge Flow

Communication becomes an essential leadership mechanism in demanding environments. When information is unstable, communication changes from simple updates to a vital form of coordinating action and sustaining trust. Effective communication shows what is changing, why it matters, and how teams should respond, helping stabilise emotions and preventing panic and speculation, especially in financial teams where accuracy and coherence are vital (Gigliotti & Alvarez-Robinson, 2025). Periods of disruption weaken shared assumptions, and leaders use communication to support collective sensemaking by helping employees interpret events, prioritise some information, and construct coherent narratives (Gigliotti & Alvarez-Robinson, 2025). Sensemaking is interactive and involves questioning and aligning interpretations (Lehtonen et al., 2025). Without this alignment, financial teams' risk analytical inconsistencies. Leaders who acknowledge uncertainty rather than pretending to have the answers maintain credibility and psychological stability (Riggio & Newstead, 2023).

Communication in high-pressure environments also influences the emotional climate, as stress reduces attentional control and increases the likelihood of an error (Luu, 2021). Leaders regulate emotions through tone, transparency, and pacing by reducing fear when explaining decisions clearly, offering reassurance, and setting realistic expectations. Clear ethical communication reduces distress and supports judgment under pressure (Ali Awad & Al-anwer Ashour, 2022). As demanding conditions disrupt functions and structured communication routines, like briefings, updates, or cross-functional exchanges, they re-establish coordination (Dale Oen et al., 2022). Financial teams depend on consistent inputs because fragmented flows cause inconsistencies in liquidity analysis and forecasting. Communication synchronises assumptions, aligns priorities, and ensures consistent interpretation of procedures. Innovation and adaptive practices spread through communication (Bai et al., 2025), while shared leadership strengthens resilience only when communication is strong (Hao et al., 2025).

As coordination processes depend on shared systems, communication becomes very related to digital infrastructures. Consequently, during periods of disruption, the use of digital systems and platforms for generating, sharing, and validating information intensifies (Grieva et al., 2025). In demanding contexts, without clear digital leadership, organisations face duplicated data, outdated spreadsheets, control failures, and unverified assumptions. Digital leadership ensures correct platform use, data integrity, and timely information access (Ye, 2025). Communication also supports digital adoption by explaining purposes, standards, and workflows. Learning and competence development rely heavily on communication networks (Dirani et al., 2020).

When digital systems accelerate the flow of information, preserving knowledge integrity becomes a central challenge in leadership. Fast-moving information makes knowledge integrity fragile, leaders preserve it by reinforcing definitions, clarifying regulatory interpretations, and spotting inconsistencies early. Psychological capital, like confidence, optimism, and hope, supports resilience under high-pressure conditions and is strengthened through communication that emphasises learning over blame (Njaramba & Olukuru, 2025). Mature knowledge systems help maintain performance by keeping information flows stable despite disruptions (Grieva et al., 2025).

The integrity of internal knowledge and communication also shapes how organisations are perceived externally in competitiveness. Leadership communication in demanding contexts also extends to the exterior, because financial decisions also affect investors and clients. Responsible leadership requires transparency and consistency to maintain legitimacy (Pless et al., 2022). Organisations that do so maintain stakeholder trust even during the worst times. For financial teams, transparent reporting and defensible assumptions become not only internal practices but signs of organisational stability.

2.5. Organisational Resilience

Resilience is viewed not simply as “bouncing back,” but as a developmental capability enabling organisations to withstand, learn from, and adapt to diverse challenges. For financial teams, resilience is both behavioural and structural (Duchek, 2020). Organisational resilience consists of anticipation, coping, and adaptation (Duchek, 2020). Anticipation prepares organisations by giving them an early warning and awareness of emerging risks. Coping involves stabilising operations during disorder, while adaptation involves learning by redesigning systems after destabilising events. A dynamic conceptualisation has become central to organisational strategy, reflecting a change toward resilience as an ongoing priority (Harsanto & Firmansyah, 2023).

Leadership shapes resilience through climate, behaviour, and systems. Transformational leadership encourages exploration and exploitation, which increases flexibility in high-pressure environments (Bai et al., 2025). Resilient leadership strengthens temporal psychological capital and innovative behaviour, helping employees manage pressure and uncertainty (Long et al., 2025). Psychological capital, like hope, optimism, self-efficacy, and resilience, further supports organisational capability to respond to environmental volatility (Njaramba & Olukuru, 2025). Financial teams, frequently under pressure, benefit from leaders who see stress as manageable and support learning-oriented cultures. Learning is essential to resilience because demanding conditions expose weaknesses and outdated assumptions. Knowledge systems, such as platforms, documentation, and communication structures, facilitate the storage and distribution of learning (Grieva et al., 2025). Psychological safety supports errors in reporting and constructive questioning, preventing repeated mistakes (Gigliotti & Alvarez-Robinson, 2025). Positive psychological resources strengthen adaptive performance (Tang et al., 2024). Shared leadership encourages diverse perspectives but must be coordinated to avoid fragmentation in financial teams (Hao et al., 2025).

Because learning must be retained, accessed, and applied under pressure, organisational resilience also depends on the reliability of information systems, which is presented in governance structures at the core of resilient functioning in financial teams. Governance arrangements and system reliability shape how resilience is presented in financial teams, which impacts liquidity management, risk assessment, and strategic analysis. Highly demanding conditions expose workflow fragilities, such as outdated models, inconsistent assumptions, and fragmented digital systems. Leaders improve resilience by regulating data, clarifying responsibilities, supporting sensemaking, sustaining transparency, promoting psychological safety, and reinforcing ethical boundaries to avoid UPB. Learning-oriented teams adapt more quickly and avoid analytical failures (Bai et al., 2025; Tang et al., 2024). Resilience, therefore, emerges as an ongoing capability shaped by leadership, systems, and learning. When cultivated through ethical leadership, adaptive behaviours, strong communication, and digital competence, financial teams increase organisational decision-making quality, strategic capacity, and preparedness for future disruptions.

2.6. Complementary Leadership Approaches in Demanding Contexts

Several complementary leadership approaches have already been introduced throughout the literature review. This section briefly revisits them to summarise their distinctive contributions and clarify how they complement adaptive leadership in demanding contexts (Schaedler et al., 2022).

2.6.1. Transformational Leadership

Transformational leadership is a leadership approach in which leaders inspire employees to focus on vision and intellectual stimulation and has been associated in demanding environments with the simultaneous pursuit of exploration and exploitation, helping organisations balance stability with experimentation (Bai et al., 2025). Resilient and transformational leadership behaviours also strengthen innovative behaviour, helping employees manage pressure and uncertainty (Long et al., 2025).

2.6.2. Digital Leadership

Digital leadership refers to the leader's capacity to guide teams through technologically mediated environments, ensuring data integrity and effective digital coordination, and enhancing organisational resilience by helping employees adjust their roles in response to technological change (Ye, 2025). In digitally mediated organisations, leadership must also support consistent knowledge flows and integrated platforms to preserve information reliability under pressure, as digital fragmentation can compromise coordination during periods of disruption (Grieva et al., 2025).

2.6.3. Shared Leadership

Shared leadership is defined as a collective conceptualisation of leadership in which influence is distributed among team members rather than concentrated in a single formal leader, and it operates as a double-edged mechanism that strengthens employee resilience when coordination quality is high but fragments decision-making when coordination is weak (Hao et al., 2025). The leadership-as-practice perspective is conceptually aligned with this view, as it understands leadership as emerging from everyday interactions and shared activities rather than from individual traits, particularly in demanding contexts where structures become less effective (Lehtonen et al., 2025).

2.6.4. Empowering Leadership

Empowering leadership is defined by the redistribution of authority and support for employee autonomy in high-pressure environments, and it accelerates responsiveness during uncertainty by enabling timely adjustments through decentralised decision-making, particularly when formal approvals become too slow to keep pace with change (Van Roekel et al., 2025). However, empowered decision-making depends on clear ethical boundaries, and the autonomy it provides may translate into UPB under high-pressure conditions (Ahmad et al., 2024).

3. METHODOLOGY

3.1. Sample

The survey was designed to examine perceptions of leadership behaviours in professional contexts characterized by uncertainty, with a focus on adaptive leadership behaviours. An online survey was administered via QualtricsXM. All participants were informed about the academic purpose of the study, the confidentiality of their responses, and their right to withdraw at any time before submitting the survey. No personal information was collected, and all data were handled in agreement with applicable data protection regulations. Before survey distribution, the study was approved by the relevant Ethics Committee (Approval Nº 25/2025).

The sample used is a convenience sample and snowball effect, directed to the target population that comprised workers in finance areas, to ensure respondents had practical experience in organisational settings aligned with the study's focus. The survey was distributed directly to 90 professionals working in financial functions in the researcher's organisation, a multinational professional services firm operating in audit, advisory, and financial consulting, representing the total population to whom the researcher had direct personal access. Additionally, 12 individuals personally known to the researcher from other organisations agreed to circulate the survey internally within their respective companies' financial teams, which prevented verification of the exact number of individuals who received the survey link. The inclusion of the 12 organisations resulted exclusively from the researcher's personal network and accessibility, rather than from random selection procedures. Participation in the study was voluntary, and no incentives were offered.

A total of 158 responses were received. However, only 115 responses were valid, as incomplete submissions were excluded from the dataset. This ensured that all responses in the analysis contained complete information for the survey items, thereby supporting the quality and reliability of the data. Participants' ages range from 21 to 63 years, with a mean of 35.49 years. The largest group of respondents was between 21 and 30 years old (47%), followed by those aged 30–39 years (18%), showing that most participants are at an early to intermediate stage of their professional lives (Appendix 1).

This age profile reflects the respondent's professional experience. Participants have between 0 and 40 years of professional experience, with an average of 12.69 years. About 53% of respondents report up to 9 years of experience, while 14% report between 9 and 18 years, suggesting that a big part of the participants have accumulated limited to moderate professional experience (Appendix 2). The sample also presents a balanced gender composition. Female respondents represent approximately 52% of the sample, male respondents account for approximately 47%, and only 1% of the participants chose not to disclose their gender, indicating a high response rate for this variable and a broadly even gender distribution among respondents (Appendix 3).

In addition, the sample shows respondents' diverse backgrounds, including those with education up to the secondary level (11%), as well as those holding a bachelor's degree (39%). Furthermore, 15% have postgraduate qualifications, and 35% hold a master's degree or PhD. This means that 89% of the sample has completed university education (Appendix 4). Beyond education, 34% of people report being married, 62% are single, and 4% are divorced. The inclusion of the marital status contributes to a more complete characterization of the sample (Appendix 5).

Regarding respondents' organizational roles, most participants occupy non-managerial positions (64%), while 22% report holding first-line management roles, 9% occupy middle management positions, and 5% are in top management. The distribution shows that although non-managerial roles are very significant, a substantial proportion of the sample performs leadership functions. (Appendix 6). About the type of employment relationship, 97% of respondents have a full-time contract, while 3% have other contractual arrangements, confirming that many participants have stable employment relationships (Appendix 7).

3.2. Adaptive Leadership Behaviour Scale (ALBS) & Analytical Procedure

Adaptive leadership behaviours were measured through the Adaptive Leadership Behaviour Scale (ALBS) developed by Nöthel et al. (2023). The ALBS captures employees' perceptions of their supervisors' capacity to adjust leadership behaviours in response to changing situational demands and was empirically validated as a unidimensional behavioural construct. The scale comprises an initial pool of 27 items, of which 15 items were retained in the validated version published by the original authors. All items were measured on a five-point Likert scale ranging from 1 ("Strongly disagree") to 5 ("Strongly agree"). Some items in the original scale were negatively worded and reverse-coded to ensure consistent interpretation.

Psychometric validation aims to assess whether a measurement instrument demonstrates adequate reliability and validity when applied in a specific context, ensuring that it accurately measures the intended construct (Shrestha, 2021). The psychometric assessment was conducted in Stata 19 and based on Principal Component Analysis (PCA), a technique used to evaluate the underlying structure of measurement instruments by producing loadings that indicate how strongly each item is associated with the latent construct (Watkins, 2018; Shrestha, 2021). PCA does not require strong distributional assumptions and produces interpretable loadings, making it suitable for evaluating the underlying structure of measurement instruments (Watkins, 2018;

Shrestha, 2021). The suitability of a sample for PCA depends on the strength of the correlations among items and the resulting communalities, rather than on the sample size alone. Samples of 100 to 150 respondents are generally considered sufficient when communalities are high, and the structure is well-defined (Rojas-Valverde et al., 2020). The sample in the present study meets the conditions for a meaningful psychometric assessment.

Before extracting any components, the suitability of the data for PCA was evaluated using complementary diagnostics. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy assesses whether the variables share enough common variance to justify component extraction, with a threshold of 0.80 (Shrestha, 2021). Bartlett's test of sphericity tests the hypothesis that the variables are uncorrelated. A statistically significant result ($p < 0.05$) indicates that the variables are sufficiently correlated for the analysis to be meaningful. The determinant of the correlation matrix was also examined to verify the absence of severe multicollinearity, which would compromise the extraction procedure (Rojas-Valverde et al., 2020).

The number of components to retain was determined using two criteria. The Kaiser criterion, which retains components with eigenvalues greater than 1, and visual inspection of the scree plot for a clear elbow indicating the number of components that meaningfully capture the data's structure (Rojas-Valverde et al., 2020). The loadings were then examined to assess each item's contribution to the construct. Items with loadings below 0.50, weak item-rest correlations, or substantial influence on the Cronbach's alpha statistic were removed, resulting in a final scale equivalent to the validated 15-item version of the ALBS (Rojas-Valverde et al., 2020). The iterative procedure replicates the item-reduction strategy adopted by the original authors (Nöthel et al., 2023) and ensures that only items that make a substantive contribution to the construct are retained for the final psychometric assessment.

Internal consistency of the final scale was evaluated through Cronbach's alpha, with a threshold of 0.70 (Taber, 2018). Convergent validity was assessed through the Average Variance Extracted (AVE), with a minimum threshold of 0.50 indicating adequate convergent validity (Shrestha, 2021). In a unidimensional PCA solution, the AVE corresponds to the proportion of variance explained by the first principal component, providing a direct and interpretable indicator of how much of the items' variance is captured by the underlying construct. The combination of factor loadings, Cronbach's alpha, and AVE provides a comprehensive assessment of the scale's reliability and convergent validity in financial professional contexts (Taber, 2018; Shrestha, 2021).

4. RESULTS

4.1. Sample Adequacy

The analysis was conducted in Stata 19, replicating the original scale (Nöthel et al., 2023). Before conducting the principal component analysis (PCA), the suitability of the data for factor analytic procedures was evaluated through the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity (Watkins, 2018; Shrestha, 2021).

Table 1. Sample adequacy diagnostics

Test	Value	Threshold
KMO	0.943	> 0.80
Bartlett's test of sphericity:		
Chi-square	1364.109	
p-value	0.000	< 0.05

Source: Own elaboration based on Stata 19

The results, presented in Table 1, confirm that the data are highly appropriate for factor extraction. The KMO value of 0.943 is above the threshold (Shrestha, 2021), and Bartlett's test of sphericity is statistically significant (Chi-square = 1364.109, $p < 0.001$), indicating that the correlation matrix is significantly different from an identity matrix and therefore factorizable.

4.2. Item Reduction

The original ALBS was initially developed from a pool of 27 items. Following the original validation procedure by Nöthel et al. (2023), the analysis in the study was conducted on the validated 15-item version of the ALBS, originally retained by the authors, which provides a more theoretically robust representation of the construct and was therefore selected as the basis for model assessment. The items selected from the original validation are shown in Table 2.

Table 2. ALBS Scale

ALBS item
Maintaining a toolbox of behavioral strategies
~~1. My supervisor's leadership behavior varies in an appropriate way depending on the task. (MTBS1)~~
~~2. My supervisor's leadership behavior varies in an appropriate way depending on the subordinate. (MTBS2)~~
~~3. My supervisor possesses a wide variety of leadership behaviors he/she can selectively apply. (MTBS3)~~
~~4. My supervisor is not able to use a variety of complimentary behaviors (e.g.,taking control but also sharing responsibilities). (MTBS 4)~~
5. My supervisor is able to focus on and manage the task at hand while keeping an eye on employee's needs. (MTBS 5)
~~6. My supervisor knows how to support shared leadership, where leadership responsibility is evenly distributed among team members, whenever the situation calls for it. (MTBS 6)~~
Accurately perceiving situational demands
7. My supervisor quickly grasps what kind of leadership behavior is optimal for a specific situation. (APSD 1)
8. My supervisor realizes when his/her leadership style should change due to changes in the situation. (APSD 2)
~~9. My supervisor often fails to recognize that his/her leadership behavior is not optimal for the situation at hand. (APSD 3)~~
~~10. My supervisor does not adjust his/her leadership style if the external environment requires him/her to do so. (APSD 4)~~
11. My supervisor tries to understand the needs of his/her subordinates and adjusts his/her responses in a fitting way. (APSD 5)
12.My supervisor is able to continuously adjust his/her behavior to the right degree to the circumstances at hand. (APSD 6)
13. My supervisor recognizes changes in task priorities and the need to modify his or her leadership behavior. (APSD 7)
~~14. My supervisor does not recognize when shared (i.e., team leadership) instead of heroic leadership (i.e., by him/herself alone) is required. (APSD 8)~~
Appropriate and flexible application
15. My supervisor reacts to unforeseen circumstances or problems with an appropriate response. (AFA 1)
~~16. My supervisor is notable to behave in an adaptive way when confronted with changing conditions that require a change in strategies/behaviors. (AFA 2)~~
17. My supervisor adjusts his or her leadership behaviors to the demands of the specific situation. (AFA 3)
~~18. My supervisor rigidly uses one specific leadership style independent of changes in the situation. (AFA 4)~~
~~19.My supervisor is not able to provide direction to his/her subordinates in complex situations where no clear solutions exist. (AFA 5)~~
20. My supervisor adapts his or her leadership behavior when unexpected events occur. (AFA 6)
21.My supervisor is capable of adjusting his/her leadership style based on the needs of his/her subordinates. (AFA 7)
22. My supervisor stays focused on the goal while remaining flexible in what leadership approaches, he/she uses to achieve the goal. (AFA 8)
23. My supervisor easily switches between directive and shared leadership according to the actual situation. (AFA 9)
Balancing opposing demands
24. My supervisor is able to balance opposite types of behavior (e.g., controlling vs. empowering) in a way that is appropriate for the situation. (BOD 1)
25. My supervisor is able to lead through difficulties, ambiguity and complexity. (BOD 2)
26. My supervisor is able to balance various conflicting needs of different stakeholders. (BOD 3)
~~27. My supervisor is not able to shift perspectives and view things from different angles. (BOD 4)~~

Note: Crossed items correspond to items excluded from the analysis process. Source**:** Adapted from Nöthel et al. (2023).

4.3. Factor Structure of the Final Scale

Table 3 presents the eigenvalues and the proportion of variance explained by each component for the 15-item scale. Only the first component exceeds the Kaiser criterion of an eigenvalue greater than 1.00 (Rojas-Valverde et al., 2020). The first component alone accounts for 62.8% of the total variance, while the second component (eigenvalue = 0.779) falls below the threshold.

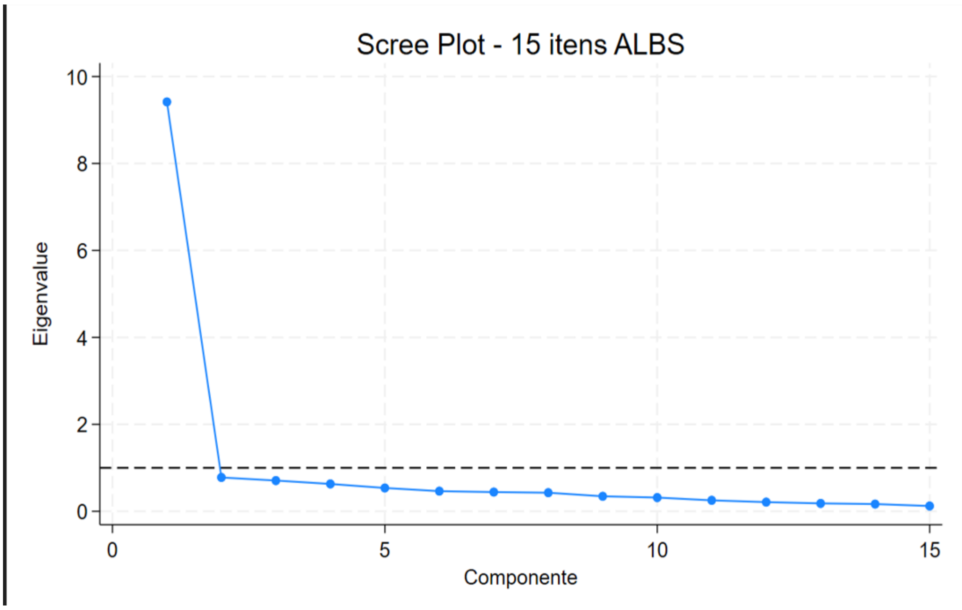
Table 3. Eigenvalues and variance

Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	**9.417**	**8.638**	**0.628**	**0.628**
Comp2	0.779	0.072	0.052	0.680
Comp3	0.707	0.077	0.047	0.727
Comp4	0.630	0.093	0.042	0.769
Comp5	0.536	0.073	0.036	0.805
Comp6	0.464	0.021	0.031	0.836
Comp7	0.442	0.014	0.030	0.865
Comp8	0.428	0.082	0.029	0.894
Comp9	0.345	0.029	0.023	0.917
Comp10	0.317	0.064	0.021	0.938
Comp11	0.253	0.042	0.017	0.955
Comp12	0.211	0.030	0.014	0.969
Comp13	0.182	0.015	0.012	0.981
Comp14	0.167	0.045	0.011	0.992
Comp15	0.122	0	0.008	1.000

Source: Own elaboration based on Stata 19

The scree plot displayed in Figure 1 provides additional graphical evidence of the unidimensional structure. The pronounced decline between the first and second components, followed by a flat curve, confirms that a single dominant factor underlies the responses to all 15 items (Watkins, 2018).

Figure 1. Scree plot of the 15-item ALBS



Source: Elaborated by Stata 19

4.4. Reliability and Convergent Validity

Table 4 presents the principal component loadings, item-test and item-rest correlations, and the Cronbach's alpha statistic for the final 15-item scale. All items load substantially on the single factor, with loadings ranging from 0.679 to 0.873, all above the recommended threshold of 0.50 (Rojas-Valverde et al., 2020). Item-rest correlations are all above 0.600, indicating that each item contributes meaningfully to the overall scale. The Cronbach's alpha of 0.957 reflects excellent internal consistency (Taber, 2018), and the average variance extracted (AVE) of 0.628 confirms convergent validity, exceeding the 0.50 recommended threshold (Shrestha, 2021).

Table 4. Loadings, reliability and convergent validity

Item	Loadings	Item-test Correlation	Item-rest Correlation	Cronbach's alpha
MTBS5	0.679	0.687	0.638	0.957
APSD1	0.773	0.771	0.733	0.955
APSD2	0.873	0.870	0.847	0.952
APSD5	0.847	0.844	0.817	0.953
APSD6	0.868	0.863	0.839	0.952
APSD7	0.780	0.779	0.743	0.954
AFA1	0.776	0.777	0.740	0.954
AFA3	0.850	0.847	0.820	0.953

AFA6	0.697	0.702	0.655	0.956
AFA7	0.814	0.811	0.779	0.954
AFA8	0.744	0.747	0.706	0.955
AFA9	0.818	0.819	0.788	0.954
BOD1	0.785	0.785	0.749	0.954
BOD2	0.736	0.742	0.700	0.955
BOD3	0.813	0.812	0.780	0.954
Test Scale				0.957

Source: Own elaboration based on Stata 19

Taken together, the results provide strong empirical support for the unidimensional structure of the ALBS in financial settings. The single underlying factor accounts for 62.78% of the variance across the 15 items, with all items loading strongly on it. The high internal consistency ($\alpha = 0.957$) and convergent validity (AVE = 0.628) support treating Adaptive Leadership as an integrated behavioural capability rather than a set of distinct dimensions. The findings replicate the unidimensional solution of the original scale (Nöthel et al., 2023) and extend its empirical validation to financial professional contexts.

5. DISCUSSION AND CONCLUSION

5.1. Discussion of Results

The present study examined the properties of the Adaptive Leadership Behaviour Scale (ALBS) developed by Nöthel et al. (2023) among professionals working in demanding financial environments characterised by uncertainty, regulatory pressure, and high accountability demands. The findings provide strong support for the unidimensional structure of the ALBS in the financial context. The Kaiser-Meyer-Olkin measure (KMO = 0.943) was above the threshold, Bartlett's test of sphericity was statistically significant (p < 0.001), the first principal component explained 62.78% of the variance with an eigenvalue of 9.42, Cronbach's alpha was 0.957, and the AVE was 0.628. The indicators confirm that the ALBS operates as a reliable and internally consistent measurement instrument when applied to financial professional contexts.

The unidimensional solution observed in the present study supports the conceptualisation of Adaptive Leadership as an integrated behavioural capability rather than as a set of independent traits. The interpretation is consistent with the conceptual foundation outlined in the literature review, which defines adaptive leadership as the capacity to modify behavioural strategies, reevaluate assumptions, and respond flexibly when normal routines and solutions are no longer effective (Nöthel et al., 2023). The fact that a single dominant factor captures more than 60% of the variance is consistent with the leadership-as-practice perspective (Lehtonen et al., 2025), which views leadership not as a set of isolated traits but as something that emerges from everyday interactions, shared interpretations, and integrated behavioural responses.

The strength of the psychometric indicators in the present sample is particularly meaningful given the specificity of the financial context. Financial teams operate in environments where market indicators become more volatile, data quality declines, and analytical models no longer reflect unfolding conditions (Naffa & Dudás, 2023; Tang et al., 2024). Within those conditions, leadership effectiveness depends on the capacity to interpret rapidly changing signals, sustain disciplined judgement under pressure, and maintain operational consistency when normal routines are insufficient (Schaedler et al., 2022; Riggio & Newstead, 2023). The strong internal consistency observed in the study indicates that financial professionals perceive their supervisors' adaptive behaviours as a coherent set of actions rather than as independent practices, being particularly relevant in financial settings, where small misinterpretations can propagate into major errors and where leadership must operate as a stable behavioural foundation in the face of environmental instability.

The unidimensional behavioural structure of Adaptive Leadership identified in the study can be better understood when contrasted with complementary leadership approaches. Transformational leadership (Bai et al., 2025) supports organisational resilience through motivation and innovation but operates through inspirational mechanisms rather than through behavioural recalibration in response to situational demands. Digital leadership (Grieva et al., 2025-; Ye, 2025) addresses the technological and informational dimension of leadership work, ensuring data integrity and consistent knowledge flows under pressure, but does not address the broader behavioural repertoire required to navigate ambiguity and competing demands. Shared leadership (Hao et al., 2025) recognises the collective distribution of influence across team members and supports resilience when coordination is high, but its effectiveness depends on coordinated communication that adaptive leaders can provide. Empowering leadership (Van Roekel et al., 2025) accelerates decision-making by redistributing authority, yet its benefits depend on the existence of clear ethical boundaries and reliable information systems. The empirical findings of the present study suggest that Adaptive Leadership integrates the behavioural logic underlying the complementary approaches, capturing the leader's capacity to adjust observable behaviours to changing situational demands and providing a coherent behavioural foundation on which transformational, digital, shared, and empowering practices can operate effectively.

The findings also relate to the broader literature on organisational resilience, which is increasingly understood as a capability that enables organisations to anticipate, cope with, and adapt to changing conditions (Duchek, 2020; Harsanto & Firmansyah, 2023). Although the study did not directly measure resilience-related outcomes, the empirical confirmation that the ALBS captures a coherent behavioural construct in financial settings provides a validated instrument for future research linking adaptive leadership behaviours to resilience-related mechanisms (Long et al., 2025; Njaramba & Olukuru, 2025).

5.2. Implications

5.2.1. Theoretical implications

The study contributes to adaptive leadership theory by extending the empirical validation of the ALBS, originally developed in a multi-sector sample, to financial professional environments. The findings support the scale's robustness and reinforce the conceptualisation of adaptive leadership as an integrated behavioural capability rather than a set of independent traits (Nöthel et al., 2023).

The results also provide empirical grounding for leadership literature linking situational interpretation to ethical judgment and responsible decision-making under pressure (Ayoko, 2022; Pless et al., 2022). Although ethical behaviour was not directly measured in the study, validating a coherent behavioural construct clarifies the foundation on which the mechanisms operate. In financial environments, incomplete information, escalating consequences, and performance expectations may increase the likelihood of questionable judgment or UPB (Ahmad et al., 2024). The strong empirical coherence across the ALBS items highlights the importance of accurate interpretation as a condition for ethical boundaries under pressure.

Furthermore, by demonstrating that adaptive leadership behaviours form a coherent construct in a context defined by high demands, the study positions the ALBS as a useful instrument for future theoretical work that connects leadership behaviour to communication challenges (Riggio & Newstead, 2023) and to the broader resilience capabilities required in financial teams operating under uncertainty (Miklian, 2025; Naffa & Dudás, 2023).

5.2.2. Practical implications

For financial organisations, validating the ALBS in the financial professional context provides a reliable instrument for leadership assessment, recruitment, and development initiatives. Rather than focusing on isolated skills, financial institutions may benefit from using the validated ALBS to evaluate how leaders interpret complex situations, communicate under pressure, and navigate tensions between performance expectations and obligations. Leadership development programmes can be designed around the behavioural dimensions captured by the scale, encouraging leaders to question assumptions, escalate concerns early, and maintain clarity in highly demanding situations.

Given that minor misjudgements or communication breakdowns in financial contexts can have significant consequences, investing in adaptive leadership development may serve as a preventive strategy. Strengthening leaders' capacity to respond better under uncertainty can contribute to greater consistency in decision-making and a more stable team functioning in demanding environments.

5.3. Limitations of the study

Despite its potential contributions, this study has some limitations that should be acknowledged. First, it is built on data collected at a single point in time, meaning that the results show how adaptive leadership behaviours are perceived at that moment in time, but do not allow us to predict how those behaviours may change over time, and given the dynamic nature of adaptive leadership, this limits the ability to understand the evolution across different phases of uncertainty. Second, the empirical model focuses exclusively on validating the ALBS. Organisational resilience, although central to the dissertation's theoretical framing, was not an outcome in the survey instrument. As a result, the study cannot establish direct empirical links between adaptive leadership and resilience-related performance outcomes. Third, the data rely on the participants' perceptions. While the approach is suitable for understanding how individuals experience leadership behaviours, it may not fully capture how those behaviours are executed in practice. Finally, the study focuses only on financial teams. Although the context is particularly relevant given high pressure and volatility, the findings may not apply to organisations and sectors beyond financial teams.

5.4. Suggestions for future research

Several directions for future research can be used for this study. One possible direction is to use over-time research designs, which allow the change in adaptive leadership behaviours to be observed over time, as it can be valuable in contexts of prolonged uncertainty, where leadership is not only responding to a one-time uncertainty. Further studies should explicitly measure organisational resilience as an outcome variable. Doing so would enable testing the theoretical proposition advanced in the dissertation, namely, that adaptive leadership is associated with organisational resilience through ethical clarity, disciplined communication, and situational sensemaking. Another way to extend this research would be to incorporate multiple sources of information, such as supervisor evaluations, objective performance indicators, and interviews with professionals in the field, which could provide a more comprehensive view of adaptive leadership behaviours and reduce reliance on a single perspective. Future studies could also explore variables that interact directly with adaptive leadership, including organisational culture, team characteristics, employee well-being, and performance, to examine its relevance and potential role within financial teams.

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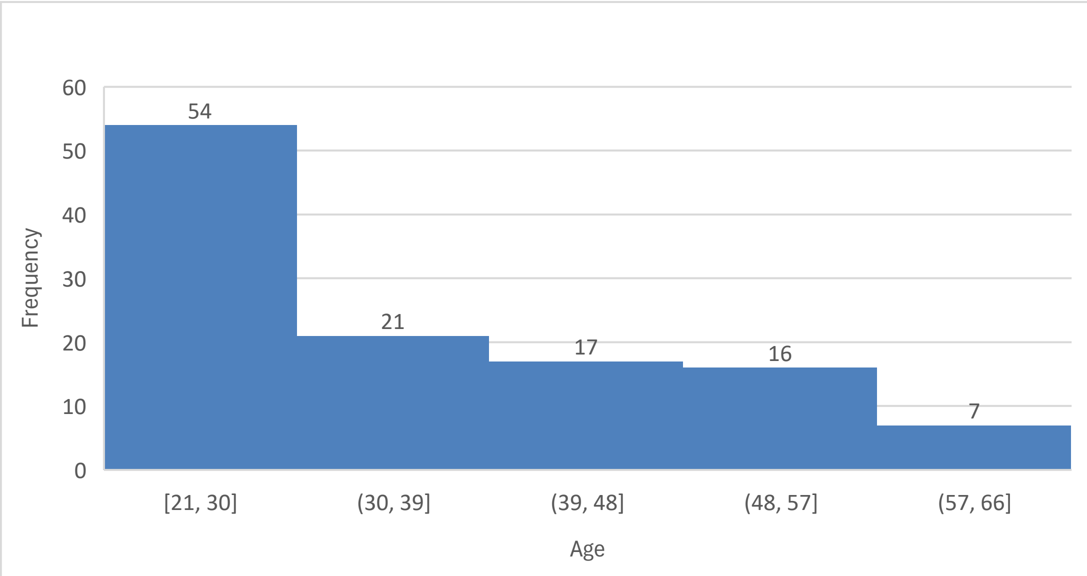
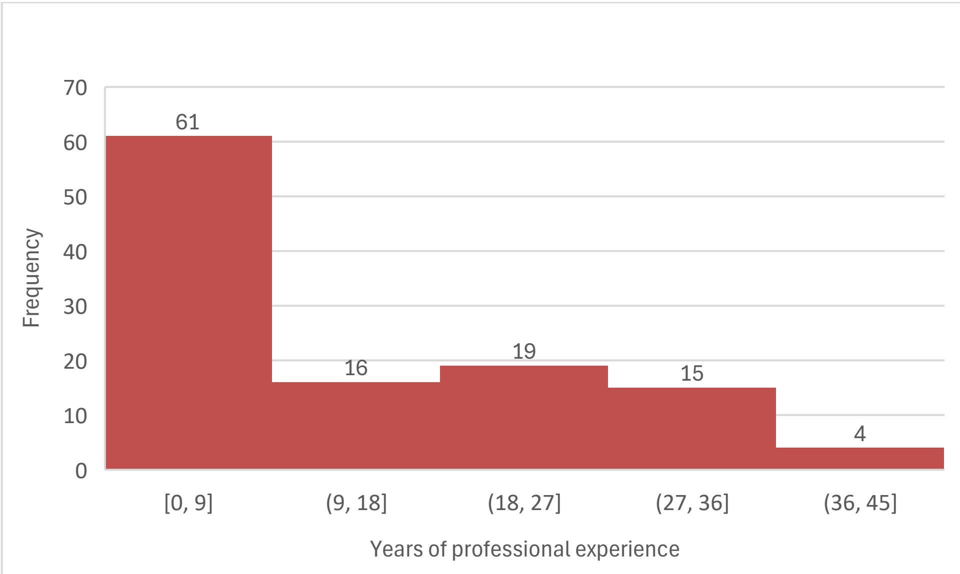
All intellectual contributions and academic judgments regarding the dissertation were made independently by the author. All AI-assisted suggestions were carefully reviewed and adjusted where necessary. The author assumes full responsibility for the final content and integrity of the work.

APPENDIX

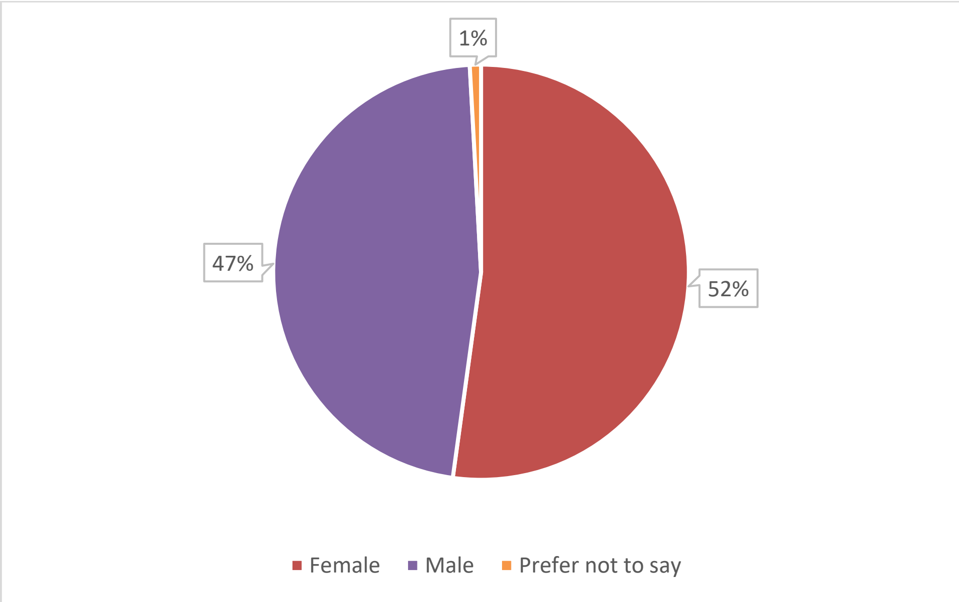
Appendix 1. Age distribution of respondents



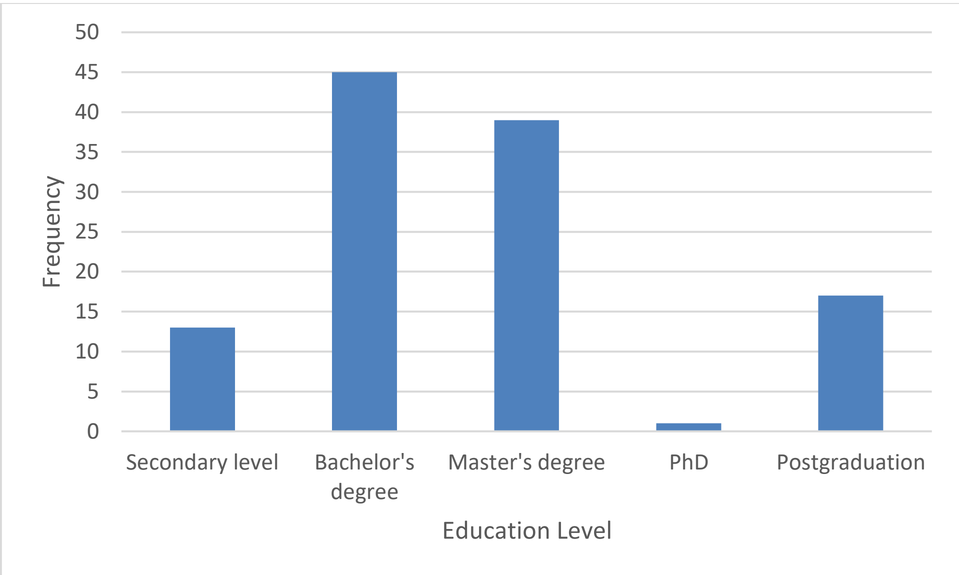
Appendix 2. Distribution of professional tenure (years)



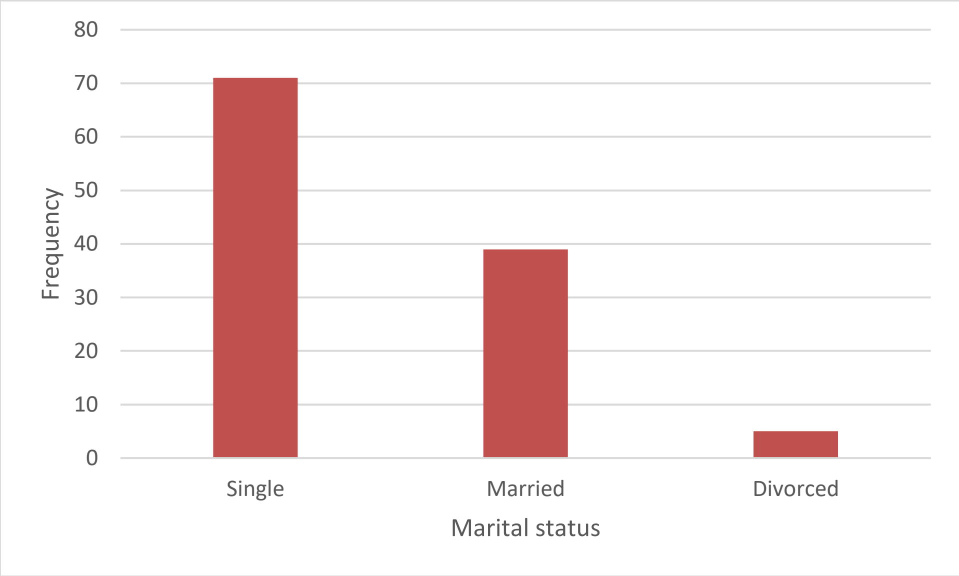
Appendix 3. Gender distribution of respondents



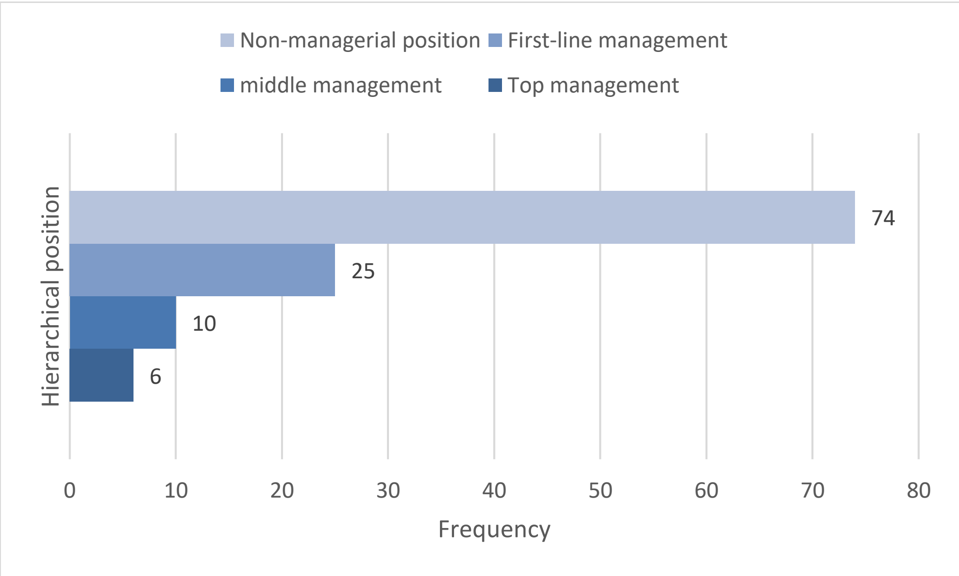
Appendix 4. Distribution of education level



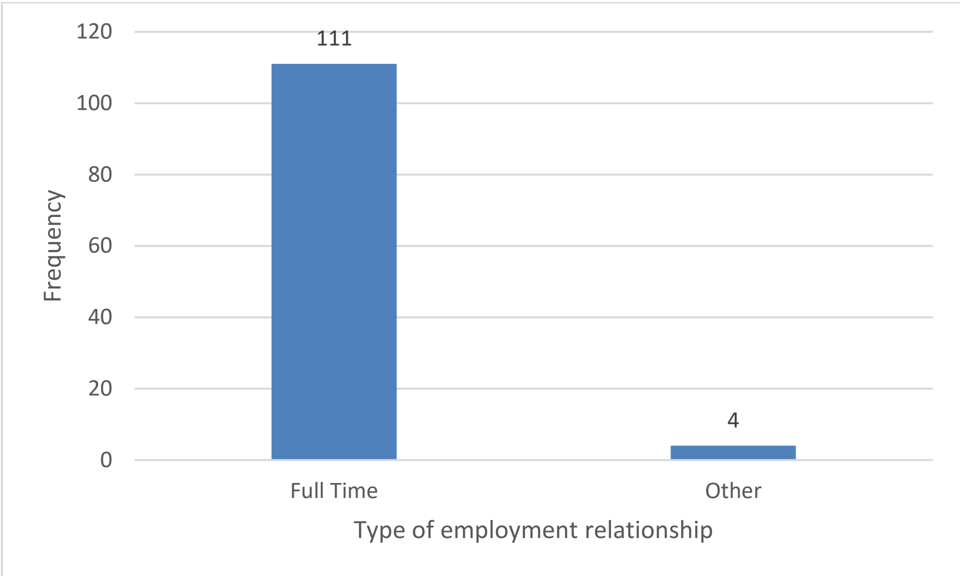
Appendix 5. Distribution of marital status



Appendix 6. Hierarchical position of respondents



Appendix 7. Distribution of type of employment relationship



Appendix 8. ALBS Scale (In Portuguese)

ALBS item
Manter um conjunto de estratégias comportamentais
1. O meu supervisor adapta o seu comportamento de liderança de forma adequada às exigências da tarefa. (MCEC1)
2. O meu supervisor adapta o seu comportamento de liderança de forma adequada às necessidades dos seus colaboradores. (MCEC2)
3. O meu supervisor possui um vasto conjunto de comportamentos de liderança que consegue aplicar de forma seletiva. (MCEC3)
4. O meu supervisor não consegue recorrer a um conjunto diversificado de comportamentos de liderança (por exemplo, assumir o controlo, mas também partilhar responsabilidades). (MCEC4)
5. O meu supervisor consegue concentrar-se na tarefa em mãos, mantendo simultaneamente atenção às necessidades dos colaboradores. (MCEC5)
6. O meu supervisor sabe como promover uma liderança partilhada, distribuindo a responsabilidade da liderança pelos membros da equipa sempre que a situação o justifica. (MCEC6)
Perceber adequadamente as exigências da situação
7. O meu supervisor identifica rapidamente qual o comportamento de liderança mais adequado para uma determinada situação. (PAES1)
8. O meu supervisor reconhece quando deve alterar o seu estilo de liderança em função das mudanças na situação. (PAES2)
9. O meu supervisor frequentemente não reconhece que o seu comportamento de liderança não é o mais adequado para a situação em causa. (PAES3)
10. O meu supervisor não adapta o seu estilo de liderança quando o contexto externo o exige. (PAES4)
11. O meu supervisor procura compreender as necessidades dos seus colaboradores e ajusta as suas respostas de forma adequada. (PAES5)
12.O meu supervisor consegue ajustar continuamente o seu comportamento de liderança ao grau de exigência das circunstâncias. (PAES6)
13. O meu supervisor reconhece alterações nas prioridades das tarefas e a necessidade de adaptar o seu comportamento de liderança. (PAES7)
14. O meu supervisor não reconhece quando a liderança partilhada (ou seja, liderança de equipa) é mais adequada do que uma liderança centrada numa única pessoa. (PAES8)
Aplicação adequada e flexível
15. O meu supervisor reage a circunstâncias inesperadas ou a problemas com uma resposta adequada. (AAF1)
16. O meu supervisor consegue adaptar o seu comportamento quando enfrenta situações em mudança que exigem uma alteração das estratégias. (AAF2)
17. O meu supervisor ajusta o seu comportamento de liderança às exigências da situação específica. (AAF3)
18. O meu supervisor utiliza rigidamente um determinado estilo de liderança, independentemente das mudanças na situação. (AAF4)
19.O meu supervisor não consegue orientar os seus colaboradores em situações complexas em que não existem soluções claras. (AAF5)
20. O meu supervisor adapta o seu comportamento de liderança quando ocorrem acontecimentos inesperados. (AAF6)
21.O meu supervisor é capaz de ajustar o seu estilo de liderança às necessidades dos seus colaboradores. (AAF7)
22. O meu supervisor mantém-se focado no objetivo, permanecendo simultaneamente flexível na forma como lidera. (AAF8)
23. O meu supervisor alterna facilmente entre uma liderança mais diretiva e uma liderança mais participativa, de acordo com a situação. (AAF9)
Equilibrar exigências opostas
24. O meu supervisor consegue equilibrar tipos de comportamento opostos (por exemplo, controlar versus dar autonomia) de forma adequada à situação. (EEO1)
25. O meu supervisor consegue liderar eficazmente em contextos marcados pela dificuldade, ambiguidade e complexidade. (EEO2)
26. O meu supervisor consegue equilibrar as diferentes necessidades, por vezes contraditórias, dos diferentes intervenientes. (EEO3)
27. O meu supervisor não consegue alterar a sua perspetiva nem considerar as situações sob diferentes ângulos. (EEO4)